

runlist_pionLT_2022_Eb_10p549

HeeP Coincidence

Table with columns: Run Type, Target, EBeam, P_SHMS, Theta_SHMS, P_HMS, Theta_HMS, Current, PS1, PS4, PS5, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw_HMS, Raw_S, Raw_HMS, Coin, EDMT, SHMS_Hadron_Tracking, Comments. Includes rows for 14965 HeePSing, 14986 HeePCoin, etc.

Q^2=3.85, W=2.02, LH+, SHMS=19.655deg

Table with columns: Run Type, Target, EBeam, P_SHMS, Theta_SHMS, P_HMS, Theta_HMS, Current, PS1, PS4, PS5, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw_HMS, Raw_S, Raw_HMS, Coin, EDMT, SHMS_Hadron_Tracking, Comments. Includes rows for 14996 Prod, 14997 Prod, etc.

Q^2=3.85, W=2.02, LH+, SHMS=21.655deg

Table with columns: Run Type, Target, EBeam, P_SHMS, Theta_SHMS, P_HMS, Theta_HMS, Current, PS1, PS4, PS5, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw_HMS, Raw_S, Raw_HMS, Coin, EDMT, SHMS_Hadron_Tracking, Comments. Includes rows for 15003 Prod, 15004 Prod, etc.

Q^2=3.85, W=2.02, LH+, SHMS=19.655deg

Table with columns: Run Type, Target, EBeam, P_SHMS, Theta_SHMS, P_HMS, Theta_HMS, Current, PS1, PS4, PS5, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw_HMS, Raw_S, Raw_HMS, Coin, EDMT, SHMS_Hadron_Tracking, Comments. Includes rows for 15020 Prod, 15021 Prod, etc.

Q^2=3.85, W=2.02, LH+, SHMS=18.01deg

Table with columns: Run Type, Target, EBeam, P_SHMS, Theta_SHMS, P_HMS, Theta_HMS, Current, PS1, PS4, PS5, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw_HMS, Raw_S, Raw_HMS, Coin, EDMT, SHMS_Hadron_Tracking, Comments. Includes rows for 15028 Prod, 15031 Prod, etc.

HeeP HMS-6GeV Singles

Table with columns: Run Type, Target, EBeam, P_SHMS, Theta_SHMS, P_HMS, Theta_HMS, Current, PS1, PS4, PS5, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw_HMS, Raw_S, Raw_HMS, Coin, EDMT, SHMS_Hadron_Tracking, Comments. Includes row for 15036 Prod.

Q^2=2.73, W=2.63, LH+, SHMS=16.32deg

Table with columns: Run Type, Target, EBeam, P_SHMS, Theta_SHMS, P_HMS, Theta_HMS, Current, PS1, PS4, PS5, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw_HMS, Raw_S, Raw_HMS, Coin, EDMT, SHMS_Hadron_Tracking, Comments. Includes rows for 15040 Prod, 15041 Prod, etc.

Q^2=2.73, W=2.63, LH+, SHMS=14.325deg

Table with columns: Run Type, Target, EBeam, P_SHMS, Theta_SHMS, P_HMS, Theta_HMS, Current, PS1, PS4, PS5, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw_HMS, Raw_S, Raw_HMS, Coin, EDMT, SHMS_Hadron_Tracking, Comments. Includes rows for 15044 Prod, 15046 Prod, etc.

Q^2=2.73, W=2.63, LH+, SHMS=12.325deg

Table with columns: Run Type, Target, EBeam, P_SHMS, Theta_SHMS, P_HMS, Theta_HMS, Current, PS1, PS4, PS5, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw_HMS, Raw_S, Raw_HMS, Coin, EDMT, SHMS_Hadron_Tracking, Comments. Includes rows for 15048 Prod, 15049 Prod, etc.

Q^2=3.85, W=2.62, LH+, SHMS=12.28deg

Table with columns: Run Type, Target, EBeam, P_SHMS, Theta_SHMS, P_HMS, Theta_HMS, Current, PS1, PS4, PS5, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw_HMS, Raw_S, Raw_HMS, Coin, EDMT, SHMS_Hadron_Tracking, Comments. Includes rows for 15055 Prod, 15056 Prod, etc.

Q²=-3.85, W=2.62, LD+, SHMS=12.28deg

Table with 16 columns: Prod, LD2, EBeam, P_SHMS, SHMS, P_HMS, HMS, Current, PS1, PS4, PS5, kHz, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw, SRaw, HMS, Coin, EDMT, Tracking, SHMS_Hadron, Comments. Rows include 15065 Prod, 15066 Prod, 15067 Prod, 15068 Prod, 15069 Prod, 15070 Prod, 15071 Prod, 15073 Prod.

Q²=-3.85, W=2.62, LD+, SHMS=14.28deg

Table with 16 columns: Prod, LD2, EBeam, P_SHMS, SHMS, P_HMS, HMS, Current, PS1, PS4, PS5, kHz, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw, SRaw, HMS, Coin, EDMT, Tracking, SHMS_Hadron, Comments. Rows include 15075 Prod, 15090 Prod, 15091 Prod, 15092 Prod, 15093 Prod, 15094 Prod, 15095 Prod, 15096 Prod, 15098 Prod, 15099 Prod, 15100 Prod.

Q²=-3.85, W=2.62, LH+, SHMS=14.28deg

Table with 16 columns: Prod, LH2, Dummy10cm, EBeam, P_SHMS, SHMS, P_HMS, HMS, Current, PS1, PS4, PS5, kHz, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw, SRaw, HMS, Coin, EDMT, Tracking, SHMS_Hadron, Comments. Rows include 15102 Prod, 15103 Prod, 15104 Prod, 15106 Prod, 15107 Prod, 15108 Prod.

Q²=-3.85, W=2.62, LH+, SHMS=16.28deg

Table with 16 columns: Prod, LH2, EBeam, P_SHMS, SHMS, P_HMS, HMS, Current, PS1, PS4, PS5, kHz, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw, SRaw, HMS, Coin, EDMT, Tracking, SHMS_Hadron, Comments. Rows include 15110 Prod, 15113 Prod, 15114 Prod, 15115 Prod, 15116 Prod, 15117 Prod, 15118 Prod, 15119 Prod, 15121 Prod.

Q²=-3.85, W=2.62, LD+, SHMS=16.28deg

Table with 16 columns: Prod, LD2, EBeam, P_SHMS, SHMS, P_HMS, HMS, Current, PS1, PS4, PS5, kHz, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw, SRaw, HMS, Coin, EDMT, Tracking, SHMS_Hadron, Comments. Rows include 15123 Prod, 15124 Prod, 15126 Prod, 15128 Prod.

Q²=6.00, W=2.40, LD+, SHMS=16.91deg - PART ONE

Table with 16 columns: Prod, LD2, EBeam, P_SHMS, SHMS, P_HMS, HMS, Current, PS1, PS4, PS5, kHz, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw, SRaw, HMS, Coin, EDMT, Tracking, SHMS_Hadron, Comments. Rows include 15137 Prod, 15138 Prod, 15139 Prod, 15140 Prod, 15141 Prod, 15142 Prod, 15143 Prod, 15144 Prod, 15145 Prod, 15146 Prod, 15147 Prod, 15148 Prod.

Q²=-3.85, W=3.07, LD-, SHMS=7.91deg

Table with 16 columns: Run Type, Target, EBeam, P_SHMS, SHMS, P_HMS, HMS, Current, PS1, PS4, PS5, kHz, HMS_Rate, SHMS_Rate, Coin_Rate, Charge, Raw, SRaw, HMS, Coin, EDMT, Tracking, SHMS_Hadron, Comments. Rows include 15153 Prod, 15154 Prod, 15155 Prod, 15156 Prod, 15157 Prod, 15158 Prod, 15159 Prod, 15160 Prod, 15161 Prod, 15162 Prod, 15163 Prod, 15164 Prod, 15165 Prod, 15166 Prod, 15167 Prod, 15168 Prod, 15169 Prod, 15170 Prod.

15172 Prod	Dummy10cm	10.549	6.538	7.91	3.944	-17.49	12.835	11	5	0	1.177	91.75	0.019	36.755	135k	174k	46k	29k	0.984	91
15173 Prod	Dummy10cm	10.549	6.538	7.91	3.944	-17.49	17.718	11	5	0	1.167	91.063	0.018	59.748	218k	282k	60k	34k	0.985	155

Q²=-3.85, W=3.07, LD-, SHMS=9.91deg

15189 Prod	LD2	10.549	6.538	9.91	3.944	-17.49	6.448	12	8	0	3.152	125.468	0.043	13.152	26k	62k	56k	24k	0.986	69 bcm
15198 Prod	LD2	10.549	6.538	9.91	3.944	-17.49	15.416	12	8	0	6.721	166.426	0.095	34.94k	146k	176k	22k	0.979	1656	
15199 Prod	LD2	10.549	6.538	9.91	3.944	-17.49	14.892	12	8	0	6.655	164.719	0.094	32.416	90k	140k	168k	22k	0.976	1628
15202 Prod	LD2	10.549	6.538	9.91	3.944	-17.49	22.217	12	8	0	11.975	303.765	0.325	77.927	213k	341k	759k	35k	0.964	3486
15203 Prod	LD2	10.549	6.538	9.91	3.944	-17.49	20.437	12	8	0	13.621	345.944	0.354	122.473	335k	535k	1131k	40k	0.966	5543
15204 Prod	LD2	10.549	6.538	9.91	3.944	-17.49	33.465	12	8	0	13.35	338.493	0.344	121.343	332k	530k	1107k	36k	0.965	5428
15206 Prod	LD2	10.549	6.538	9.91	3.944	-17.49	30.572	12	8	0	12.64	322.55	0.323	24.806	68k	108k	224k	8k	0.965	1069
15212 Prod	LD2	10.549	6.538	9.91	3.944	-17.49	29.965	12	8	0	13.508	344.153	0.359	47.379	129k	207k	446k	16k	0.966	2122
15213 Prod	LD2	10.549	6.538	9.91	3.944	-17.49	31.48	13	8	0	15.51	397.77	0.48	112.443	306k	247k	1230k	36k	0.961	5066
15214 Prod	LD2	10.549	6.538	9.91	3.944	-17.49	24.798	13	8	0	15.29	390.477	0.459	86.346	236k	190k	928k	35k	0.962	3803
15215 Prod	LD2	10.549	6.538	9.91	3.944	-17.49	36.931	13	8	0	15.611	399.743	0.474	53.153	145k	117k	569k	14k	0.96	2352
15224 Prod	LD2	10.549	6.538	9.91	3.944	-17.49	7.878	12	8	0	9.091	229.02	0.174	10.472	29k	46k	82k	15k	0.971	504
15225 Prod	LD2	10.549	6.538	9.91	3.944	-17.49	16.947	13	8	0	8.507	214.051	0.155	56.888	156k	123k	376k	34k	0.974	2564
15227 Prod	LD2	10.549	6.538	9.91	3.944	-17.49	22.839	13	8	0	9.521	239.705	0.181	83.127	227k	180k	565k	36k	0.973	3917
15228 Prod	LD2	10.549	6.538	9.91	3.944	-17.49	20.392	13	8	0	8.205	205.583	0.137	35.232	97k	76k	210k	17k	0.976	1742
15229 Prod	Dummy10cm	10.549	6.538	9.91	3.944	-17.49	18.269	10	5	0	1.444	36.401	0.015	72.468	262k	218k	56k	40k	0.989	275

Q²=-3.85, W=3.07, LD-, SHMS=11.905deg

15230 Prod	Dummy10cm	10.549	6.538	11.905	3.944	-17.49	18.699	10	5	0	1.439	12.997	0.012	66.323	240k	72k	43k	36k	0.989	106
15232 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	19.483	11	8	0	8.287	75.389	0.062	68.032	187k	214k	185k	35k	0.978	1830
15233 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	18.6	11	8	0	8.358	75.994	0.062	62.109	170k	195k	171k	34k	0.977	1691
15235 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	6.593	11	8	0	8.266	75.167	0.062	21.423	59k	67k	85k	37k	0.975	597
15236 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	10.989	11	8	0	6.119	55.146	0.041	40.012	111k	125k	110k	38k	0.982	1150 unstable beam
15239 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	16.334	11	8	0	7.891	71.748	0.06	16.488	45k	52k	47k	10k	0.974	421 unstable beam
15240 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	12.091	11	8	0	9.391	86.16	0.079	39.745	109k	126k	138k	35k	0.977	1101 unstable beam
15241 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	17.712	11	8	0	9.62	88.239	0.079	36.741	100k	116k	114k	21k	0.974	990
15243 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	22.263	11	8	0	9.583	87.49	0.078	79.317	217k	249k	236k	36k	0.975	2245
15244 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	25.436	11	8	0	9.905	90.839	0.082	89.821	246k	284k	266k	35k	0.975	2380
15245 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	20.797	11	8	0	9.313	85.133	0.076	39.582	108k	125k	118k	19k	0.974	1084
15246 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	13.636	11	8	0	9.289	84.791	0.076	9.962	27k	31k	33k	8k	0.978	272
15247 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	22.1	11	8	0	9.41	86.102	0.077	79.572	218k	251k	237k	36k	0.976	2151
15248 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	23.775	11	8	0	9.485	88.779	0.079	16.019	43k	50k	47k	7k	0.975	412
15252 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	10.603	11	8	0	9.182	83.787	0.075	11.296	31k	36k	40k	11k	0.976	322
15254 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	33.397	12	9	0	16.279	155.579	0.216	122.581	166k	199k	578k	37k	0.964	3226
15255 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	23.671	12	9	0	15.19	144.372	0.197	55.197	75k	90k	261k	24k	0.965	1411
15256 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	28.219	12	9	0	16.075	152.267	0.202	101.708	133k	164k	462k	36k	0.966	2639
15257 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	32.353	12	9	0	14.775	140.739	0.183	45.139	62k	74k	200k	14k	0.968	1209
15258 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	34.152	12	9	0	16.138	152.47	0.203	121.08	165k	196k	543k	35k	0.965	3120
15259 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	31.939	12	9	0	15.786	149.182	0.198	113.708	155k	184k	510k	36k	0.965	2942
15260 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	27.604	12	9	0	15.346	144.946	0.19	100.209	137k	162k	449k	37k	0.967	2272
15261 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	28.963	12	9	0	15.675	147.464	0.195	101.55	139k	164k	457k	35k	0.968	2670
15262 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	31.703	12	9	0	15.427	145.375	0.192	111.565	153k	181k	498k	35k	0.966	2836
15263 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	16.821	12	9	0	14.014	131.685	0.17	56.689	78k	92k	264k	35k	0.966	1493
15264 Prod	LD2	10.549	6.538	11.905	3.944	-17.49	8.372	12	9	0	12.909	119.877	0.146	12.182	17k	20k	62k	16k	0.968	301

Q²=6.00, W=2.40, LD+, SHMS=16.91deg - PART TWO

Run	Type	Target	EBeam	P_SHMS	Theta_ SHMS	Theta_ SHMS	Current	PS1	PS4	PS5	HMS Rate (kHz)	SHMS Rate (kHz)	Coin Rate (mC)	Charge (mC)	Raw HMS	Raw Coin	Raw S Raw	EDTM	SHMS Tracking	Hadron Tracking	Comments
15265 Prod	LD2	10.549	5.512	16.915	4.752	-19.915	28.8	10	7	0	2.911	27.018	0.029	102.353	98k	116k	77k	36k	0.993	2625	
15267 Prod	LD2	10.549	5.512	16.915	4.752	-19.915	24.811	10	7	0	2.749	25.488	0.028	85.233	82k	96k	69k	35k	0.993	2252	
15270 Prod	LD2	10.549	5.512	16.915	4.752	-19.915	29.928	10	7	0	3.037	28.204	0.03	109.205	105k	123k	81k	37k	0.993	2883	
15271 Prod	LD2	10.549	5.512	16.915	4.752	-19.915	32.471	10	7	0	2.903	26.939	0.029	115.81	111k	130k	82k	36k	0.993	2977	
15272 Prod	LD2	10.549	5.512	16.915	4.752	-19.915	37.954	10	7	0	3.102	28.888	0.03	135.889	130k	153k	91k	36k	0.993	3455	
15273 Prod	LD2	10.549	5.512	16.915	4.752	-19.915	19.136	10	7	0	2.431	22.243	0.025	112.069	108k	125k	104k	60k	0.993	2963	

Q²=6.00, W=2.40, LH+, SHMS=16.91deg

15274 Prod	Dummy10cm	10.549	5.512	16.915	4.752	-19.915	21.328	10	7	0	0.579	4.613	0.013	116.978	28k	28k	64k	56k	0.996	83 dummy set 68826 evt replay to -1 to fill run list due to running too long
15276 Prod	LH2	10.549	5.512	16.915	4.752	-19.915	28.243	8	5	0	1.504	11.726	0.019	98.862	205k	210k	57k	35k	0.996	2431
15277 Prod	LH2	10.549	5.512	16.915	4.752	-19.915	29.216	8	5	0	1.428	11.073	0.019	55.386	115k	117k	31k	19k	0.997	1391
15278 Prod	LH2	10.549	5.512	16.915	4.752	-19.915	15.249	8	5	0	1.352	10.418	0.018	58.742	123k	124k	53k	40k	0.996	1448
15279 Prod	LH2	10.549	5.512	16.915	4.752	-19.915	17.465	8	5	0	1.396	10.81	0.019	19.425	41k	41k	16k	12k	0.995	467
15280 Prod	LH2	10.549	5.512	16.915	4.752	-19.915	30.48	8	5	0	1.513	11.789	0.019	57.197	119k	122k	31k	19k	0.996	1437
15281 Prod	LH2	10.549	5.512	16.915	4.752	-19.915	32.791	8	5	0	1.518	11.828	0.02	124.268	258k	264k	66k	38k	0.994	3010
15282 Prod	LH2	10.549	5.512	16.915	4.752	-19.915	26.321	8	5	0	1.475	11.484	0.019	93.274	194k	198k	57k	36k	0.994	2359
15283 Prod	LH2	10.549	5.512	16.915	4.752	-19.915	16.694	8	5	0										

15297 Prod	LH2	10.549	5.512	14.91	4.752	-19.915	28.827	9	5	0	1.387	21.653	0.021	100.94	211k	217k	63k	35k			0.995			3036	
15298 Prod	LH2	10.549	5.512	14.91	4.752	-19.915	15.216	9	5	0	1.223	19.016	0.019	17.266	37k	37k	17k	12k				0.993			514
15299 Prod	LH2	10.549	5.512	14.91	4.752	-19.915	38.823	9	5	0	1.488	23.325	0.022	138.752	288k	299k	74k	36k				0.994			4232
15300 Prod	LH2	10.549	5.512	14.91	4.752	-19.915	31.546	9	5	0	1.422	22.28	0.021	115.586	240k	249k	69k	37k				0.994			3518
15301 Prod	LH2	10.549	5.512	14.91	4.752	-19.915	8.708	9	5	0	0.951	14.679	0.017	18.232	39k	39k	28k	23k				0.997			554
15302 Prod	LH2	10.549	5.512	14.91	4.752	-19.915	32.59	9	5	0	1.417	22.208	0.021	114.101	237k	245k	67k	35k				0.994			3477

Q²=6.00, W=2.40, LD+, SHMS=14.91deg

15304 Prod	LD2	10.549	5.512	14.91	4.752	-19.915	12.123	9	5	0	2.236	40.251	0.028	34.227	127k	150k	48k	30k				0.993			1136
15305 Prod	LD2	10.549	5.512	14.91	4.752	-19.915	1.949	10	6	0	1.839	32.893	0.024	11.089	25k	25k	142k	136k				0.996			366
15306 Prod	LD2	10.549	5.512	14.91	4.752	-19.915	30.222	10	6	0	2.258	40.659	0.028	108.286	206k	238k	92k	36k				0.993			3637
15308 Prod	LD2	10.549	5.512	14.91	4.752	-19.915	13.148	10	6	0	1.405	24.902	0.021	45.585	88k	99k	58k	36k				0.993			1514
15309 Prod	LD2	10.549	5.512	14.91	4.752	-19.915	16.86	10	6	0	1.733	30.94	0.024	61.969	119k	136k	68k	38k				0.994			2039
15310 Prod	LD2	10.549	5.512	14.91	4.752	-19.915	5.451	10	6	0	1.086	18.843	0.018	5.257	10k	11k	14k	11k				0.997			171
15311 Prod	LD2	10.549	5.512	14.91	4.752	-19.915	9.581	10	6	0	1.198	20.714	0.018	32.111	63k	69k	50k	36k				0.996			1029
15313 Prod	LD2	10.549	5.512	14.91	4.752	-19.915	15.064	10	6	0	1.273	22.061	0.019	52.896	102k	113k	59k	36k				0.994			1772
15314 Prod	LD2	10.549	5.512	14.91	4.752	-19.915	20.866	10	6	0	1.574	27.557	0.021	73.409	140k	158k	69k	35k				0.994			2496
15315 Prod	LD2	10.549	5.512	14.91	4.752	-19.915	26.037	10	6	0	1.988	35.387	0.025	93.358	178k	203k	81k	36k				0.993			3077
15316 Prod	LD2	10.549	5.512	14.91	4.752	-19.915	31.366	10	6	0	2.311	41.552	0.029	113.028	214k	248k	94k	36k				0.992			3805
15317 Prod	LD2	10.549	5.512	14.91	4.752	-19.915	35.481	10	6	0	2.436	43.973	0.03	125.756	238k	277k	101k	35k				0.992			4079
15318 Prod	LD2	10.549	5.512	14.91	4.752	-19.915	34.972	10	6	0	2.448	44.237	0.031	125.067	237k	275k	101k	36k				0.993			4057
15319 Prod	LD2	10.549	5.512	14.91	4.752	-19.915	29.161	10	6	0	2.333	42.059	0.029	49.863	95k	110k	43k	17k				0.992			1727

Q²=6.00, W=2.40, LH+, SHMS=12.915deg

15320 Prod	Dummy10cm	10.549	5.512	12.915	4.752	-19.915	32.078	10	6	0	0.418	14.076	0.012	76.516	27k	58k	28k	24k				0.997	124 dummy			
15321 Prod	LH2	10.549	5.512	12.915	4.752	-19.915	31.103	10	6	0	1.363	50.849	0.023	30.517	33k	78k	20k	10k				0.992				873
15322 Prod	LH2	10.549	5.512	12.915	4.752	-19.915	33.631	10	6	0	1.467	54.801	0.024	102.333	110k	263k	66k	30k				0.992				3009
15323 Prod	LH2	10.549	5.512	12.915	4.752	-19.915	32.323	10	6	0	1.379	51.469	0.024	114.625	123k	295k	76k	36k				0.993				3220
15324 Prod	LH2	10.549	5.512	12.915	4.752	-19.915	30.379	10	6	0	1.425	53.181	0.024	106.978	115k	275k	73k	35k				0.992				2985
15326 Prod	LH2	10.549	5.512	12.915	4.752	-19.915	23.105	10	6	0	1.351	50.508	0.023	79.997	86k	205k	63k	35k				0.992				2205
15328 Prod	LH2	10.549	5.512	12.915	4.752	-19.915	31.63	10	5	0	1.309	48.804	0.023	114.86	239k	295k	76k	36k				0.991				3192
15329 Prod	LH2	10.549	5.512	12.915	4.752	-19.915	28.414	10	5	0	1.344	50.154	0.023	98.659	205k	253k	69k	35k				0.992				2702
15332 Prod	LH2	10.549	5.512	12.915	4.752	-19.915	28.215	10	5	0	1.245	46.308	0.022	100.752	210k	258k	70k	36k				0.992				2749
15333 Prod	LH2	10.549	5.512	12.915	4.752	-19.915	29.569	10	5	0	1.291	48.053	0.022	126.818	264k	325k	86k	43k				0.992				3488
15334 Prod	LH2	10.549	5.512	12.915	4.752	-19.915	21.008	10	5	0	1.244	46.205	0.022	24.335	51k	62k	20k	12k				0.991				701
15335 Prod	LH2	10.549	5.512	12.915	4.752	-19.915	32.821	10	5	0	1.336	49.859	0.023	117.396	244k	301k	76k	36k				0.992				3327
15336 Prod	LH2	10.549	5.512	12.915	4.752	-19.915	30.477	10	5	0	1.319	49.134	0.023	75.181	156k	193k	51k	25k				0.991				2153

Q²=6.00, W=3.19, LH+, SHMS=7.65deg

Run Type	Target	EBEAM	P_SHMS	Theta_SHMS	Theta_P_HMS	Theta_HMS	Current	PS1	PS4	PS5	HMS_Rate (kHz)	SHMS_Rate (kHz)	Coin_Rate (kHz)	Charge (mC)	Raw_HMS	Raw_S	Raw_Coin	EDTM	SHMS_Hadron_Tracking	Comments						
15337 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	31.485	12	5	0	1.269	145.629	0.026	111.906	222k	211k	82k	35k			0.981				590	
15338 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	28.873	12	5	0	1.251	143.22	0.025	97.345	193k	183k	74k	34k				0.982				551
15340 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	33.18	12	5	0	1.272	145.807	0.026	120.612	239k	227k	87k	36k				0.981				630
15341 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	32.109	12	5	0	1.301	150.181	0.026	106.577	210k	201k	78k	33k				0.979				566
15342 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	35.666	12	5	0	1.329	153.692	0.027	128.044	253k	242k	90k	36k				0.980				645
15343 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	33.769	12	5	0	1.269	146.298	0.026	120.905	238k	228k	87k	36k				0.984				655
15345 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	28.993	12	5	0	1.253	143.88	0.025	99.865	198k	188k	76k	35k				0.981				577
15346 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	32.788	12	5	0	1.259	144.762	0.026	117.328	232k	221k	85k	36k				0.979				611
15347 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	25.763	12	5	0	1.232	141.318	0.025	98.529	195k	185k	79k	39k				0.983				541
15348 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	13.054	12	5	0	0.902	99.921	0.02	44.483	90k	81k	52k	36k				0.982				229
15349 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	26.438	12	5	0	1.247	143.679	0.025	93.036	184k	175k	74k	35k				0.979				514
15350 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	29.253	12	0	-1	1.253	144.389	0.025	113.519	3807k	214k	86k	39k				0.981				606
15351 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	26.844	12	5	0	1.236	141.962	0.025	96.79	191k	182k	76k	36k				0.98				530
15352 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	23.877	12	5	0	1.247	143.271	0.025	103.539	205k	195k	87k	44k				0.98				606
15353 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	21.942	12	5	0	1.209	138.249	0.025	79.822	158k	149k	70k	37k				0.982				420
15354 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	27.804	12	5	0	1.204	137.886	0.025	101.017	199k	189k	78k	36k				0.982				542
15355 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	23.697	12	5	0	1.174	133.986	0.024	83.714	166k	156k	70k	36k				0.984				473
15356 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	10.234	12	5	0	1.193	135.474	0.024	23.554	48k	44k	35k	25k				0.983				136
15357 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	20.909	12	5	0	1.057	118.929	0.022	78.763	156k	145k	69k	38k				0.981				437
15358 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	24.452	12	5	0	1.178	134.911	0.024	85.629	169k	160k	70k	35k				0.983				453
15359 Prod	LH2	10.549	8.035	7.65	2.398	-28.175</																				

15381 Prod	Dummy10cm	10.549	8.035	7.65	2.398	-28.175	29.281	10	4	0	0.484	26.945	0.011	103.398	162k	158k	39k	35k	0.993 36 dummy	
15382 Prod	Dummy10cm	10.549	8.035	7.65	2.398	-28.175	8.544	10	4	0	0.311	16.772	0.011	18.335	31k	28k	24k	24k	0.992 7 dummy	
15383 Prod	Dummy10cm	10.549	8.035	7.65	2.398	-28.175	23.569	10	4	0	0.443	24.527	0.011	82.28	130k	126k	38k	35k	0.996 32 dummy	
15384 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	27.571	10	0	-1	1.078	121.44	0.021	47.55	1570k	344k	34k	17k	0.984	215
15385 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	26.398	10	5	0	1.09	122.872	0.022	92.183	179k	668k	68k	35k	0.987	494
15386 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	28.114	10	5	0	1.124	127.097	0.022	97.265	189k	707k	69k	35k	0.986	485
15387 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	25.377	10	5	0	1.104	124.495	0.022	92.092	180k	669k	69k	36k	0.986	500
15388 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	27.773	10	5	0	1.133	128.145	0.022	95.609	186k	695k	69k	34k	0.984	504
15389 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	27.144	10	5	0	1.105	124.507	0.022	92.821	181k	674k	67k	34k	0.984	501
15390 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	26.903	10	5	0	1.112	125.652	0.022	106.448	207k	774k	78k	40k	0.985	559
15391 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	26.934	10	5	0	1.111	125.084	0.022	94.949	185k	690k	69k	35k	0.985	498
15392 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	19.097	10	5	0	1.053	118.633	0.021	72.294	142k	526k	65k	39k	0.981	387
15393 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	1.709	10	5	0	0.366	35.282	0.012	2.605	8k	17k	41k	41k	0.957	15
15394 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	10.282	10	5	0	0.933	103.891	0.02	42.908	86k	309k	60k	45k	0.986	241
15395 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	22.155	10	5	0	1.113	125.184	0.022	74.515	146k	540k	60k	34k	0.986	385
15396 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	27.02	10	5	0	1.121	126.957	0.022	98.996	193k	722k	73k	37k	0.984	511
15397 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	24.381	11	5	0	1.113	125.375	0.022	84.95	166k	309k	66k	35k	0.984	484
15399 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	32.408	12	5	0	1.197	137.375	0.024	118.601	230k	218k	81k	36k	0.984	608

$Q^2=6.00$, $W=3.19$, $LH+$, $SHMS=7.65$ deg

Run	Type	Target	EBeam	P_SHMS	SHMS	P_HMS	HMS	Current	PS1	PS4	PS5	HMS Rate (kHz)	SHMS Rate (kHz)	Coin Rate (kHz)	Charge (mC)	Raw HMS	Raw S	Raw Coin	EDTM	SHMS	Hadron Tracking	Comments
15400 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	28.286	12	5	0	1.193	137.278	0.024	104.591	203k	194k	77k	37k	0.983		545	
15401 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	25.116	12	5	0	1.154	131.834	0.023	87.782	172k	162k	69k	35k	0.984		493	
15402 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	25.466	12	5	0	1.187	136.645	0.024	89.298	174k	165k	70k	35k	0.987		488	
15403 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	24.713	12	5	0	1.161	133.173	0.023	86.453	169k	160k	68k	35k	0.983		433	
15404 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	23.354	12	5	0	1.12	128.054	0.023	54.29	106k	100k	44k	24k	0.987		287	
15405 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	21.718	12	5	0	1.163	133.364	0.023	75.765	148k	140k	64k	35k	0.983		411	
15406 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	35.108	12	5	0	1.254	145.309	0.025	122.429	237k	228k	82k	35k	0.984		634	
15407 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	19.868	12	5	0	0.996	111.782	0.021	68.694	135k	125k	60k	35k	0.988		374	
15408 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	20.973	12	5	0	1.083	123.089	0.022	68.653	134k	126k	59k	33k	0.983		361	
15410 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	14.261	12	5	0	1.056	119.096	0.021	19.42	38k	35k	21k	14k	0.988		94	
15411 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	28.451	12	5	0	1.174	134.147	0.023	98.808	192k	182k	72k	35k	0.988		539	
15412 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	33.295	12	5	0	1.232	142.26	0.024	114.567	222k	213k	79k	34k	0.984		621	
15413 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	29.349	12	5	0	1.206	138.912	0.024	109.976	214k	204k	80k	38k	0.985		568	
15414 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	29.263	12	5	0	1.229	141.45	0.024	103.879	203k	193k	76k	36k	0.984		535	
15415 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	32.419	12	5	0	1.241	143.043	0.025	123.776	241k	230k	87k	38k	0.982		650	
15416 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	30.647	12	5	0	1.233	142.195	0.024	112.874	219k	210k	81k	37k	0.986		586	
15417 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	25.888	12	5	0	1.15	131.54	0.023	91.602	179k	169k	70k	36k	0.983		488	
15418 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	13.746	12	5	0	0.905	100.835	0.019	16.97	34k	31k	19k	13k	0.988		88	
15420 Prod	Dummy10cm	10.549	8.035	7.65	2.398	-28.175	1.736	10	4	0	0.198	10.176	0.01	0.848	3k	1k	14k	14k		11 dummy		
15421 Prod	Dummy10cm	10.549	8.035	7.65	2.398	-28.175	18.115	10	4	0	0.402	22.133	0.011	62.631	100k	96k	38k	35k	0.989 18 dummy			
15423 Prod	Dummy10cm	10.549	8.035	7.65	2.398	-28.175	21.495	10	4	0	0.435	24.207	0.011	77.351	123k	119k	40k	37k	0.988 23 dummy			
15424 Prod	Dummy10cm	10.549	8.035	7.65	2.398	-28.175	20.848	10	4	0	0.472	26.446	0.011	72.776	115k	112k	39k	36k	0.993 27 dummy			
15426 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	34.866	10	4	0	1.342	157.96	0.027	118.256	432k	892k	83k	34k	0.981		607	
15427 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	36.723	10	4	0	1.38	163.195	0.028	133.561	489k	1013k	93k	36k	0.984		718	
15428 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	39.844	10	4	0	1.443	173.544	0.03	134.304	490k	1033k	94k	33k	0.982		693	
15429 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	39.7	12	5	0	1.558	192.559	0.034	136.475	263k	270k	103k	34k	0.98		668	
15430 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	42.151	12	5	0	1.603	199.628	0.035	134.648	260k	268k	101k	32k	0.978		748	
15431 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	32.112	12	5	0	1.656	208.041	0.037	98.721	191k	199k	84k	31k	0.98		524	
15432 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	34.379	12	5	0	1.637	205.771	0.037	116.628	225k	234k	97k	34k	0.976		587	
15433 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	23.764	12	5	0	1.058	120.763	0.022	81.814	160k	151k	66k	35k	0.982 451 unstable			
15434 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	34.359	12	5	0	1.574	196.713	0.035	122.333	236k	244k	100k	36k	0.981		625	
15435 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	40.109	12	5	0	1.585	198.386	0.035	110.991	214k	221k	85k	28k	0.98		546	
15436 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	30.805	12	5	0	1.625	207.445	0.038	109.579	212k	223k	98k	36k	0.981		530	
15437 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	33.042	12	5	0	1.679	215.188	0.039	117.708	227k	241k	103k	36k	0.977		626	
15438 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	22.941	12	5	0	1.761	232.151	0.044	54.651	105k	114k	58k	24k	0.97		232	
15439 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	35.791	12	5	0	1.741	228.473	0.043	128.841	248k	269k	116k	36k	0.976		646	
15440 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	41.737	13	6	0	1.802	237.717	0.044	146.316	145k	153k	126k	35k	0.973		732	
15441 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	36.153	13	6	0	1.741	228.268	0.043	131.323	130k	137k	118k	36k	0.976		691	
15442 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	21.79	13	6	0	1.787	235.331	0.045	35.321	35k	37k	39k	17k	0.98		192	
15443 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	26.781	13	6	0	1.448	182.59	0.034	14.5	15k	15k	14k	5k	0.981		74	
15444 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	46.408	13	6	0	1.874	249.154	0.047	161.808	160k	171k	138k	35k	0.975		781	
15445 Prod	LH2	10.549	8.035	7.65	2.398	-28.175	41.927	13	6	0	1.838	242.837	0.046	151.863	151k	160						

Q²=6.00, W=3.19, LH+, SHMS=5.65deg

15463 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	31.458	14	5	0	1.284	567.981	0.064	63.242 123k	113k	109k	20k		0.952	240
15464 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	38.315	14	5	0	1.373	614.811	0.07	137.949 267k	248k	235k	35k		0.952	528
15466 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	36.191	14	5	0	1.359	607.501	0.069	129.206 251k	232k	221k	35k		0.952	474
15467 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	39.398	14	5	0	1.392	625.421	0.071	142.213 275k	256k	242k	35k		0.949	550
15468 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	36.517	14	5	0	1.371	615.15	0.07	130.358 253k	235k	224k	35k		0.95	500
15469 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	38.062	14	5	0	1.385	621.182	0.071	138.659 269k	250k	237k	36k		0.953	553
15470 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	42.785	14	5	0	1.577	753.711	0.097	153.575 297k	294k	314k	35k		0.937	580
15471 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	40.886	15	6	0	1.557	742.923	0.096	143.428 143k	137k	294k	34k		0.939	547
15472 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	41.304	15	6	0	1.597	780.091	0.099	138.297 136k	133k	283k	33k		0.935	504
15473 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	40.973	15	6	0	1.572	750.276	0.097	146.152 146k	140k	301k	35k		0.939	574
15474 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	36.246	14	0	-1	1.455	678.551	0.086	118.379 3906k	222k	236k	32k		0.939	422
15475 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	32.086	14	5	0	1.325	590.726	0.067	82.076 159k	147k	142k	25k		0.952	361
15476 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	33.672	14	5	0	1.343	596.82	0.068	120.174 233k	215k	207k	35k		0.954	490
15477 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	35.339	14	5	0	1.348	600.536	0.068	133.943 260k	240k	229k	37k		0.954	556
15478 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	25.516	14	5	0	1.237	540.739	0.061	90.093 176k	159k	159k	35k		0.954	319
15479 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	29.983	14	5	0	1.278	564.004	0.064	105.401 205k	187k	181k	35k		0.954	395
15480 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	19.169	14	5	0	1.294	569.387	0.064	65.609 129k	116k	126k	35k		0.952	284
15481 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	17.046	14	5	0	1.289	568.827	0.064	43.738 86k	78k	87k	26k		0.957	147
15483 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	28.682	14	5	0	1.282	564.691	0.064	109.073 212k	193k	189k	38k		0.954	430
15484 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	20.701	14	5	0	1.239	544.932	0.061	75.41 147k	134k	140k	37k		0.954	299
15485 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	32.105	14	5	0	1.292	569.648	0.064	117.937 230k	210k	201k	36k		0.954	468
15486 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	32.675	14	5	0	1.319	586.123	0.067	128.985 251k	231k	222k	39k		0.955	499
15487 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	36.252	14	5	0	1.354	601.419	0.068	127.901 248k	229k	217k	35k		0.952	503
15489 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	35.011	14	5	0	1.335	590.765	0.067	124.147 242k	222k	211k	35k		0.952	387
15490 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	33.414	14	5	0	1.326	590.145	0.067	120.895 235k	216k	207k	36k		0.953	353
15491 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	29.104	14	5	0	1.25	553.771	0.063	12.135 23k	22k	21k	4k		0.957	39
15492 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	38.531	14	5	0	1.369	610.735	0.069	79.177 153k	142k	134k	20k		0.951	246
15493 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	30.357	14	5	0	1.319	588.166	0.067	120.281 233k	215k	210k	39k		0.952	489
15494 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	35.514	14	5	0	1.369	610.307	0.07	134.335 261k	241k	231k	37k		0.954	545
15495 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	35.987	14	5	0	1.358	605.919	0.069	127.337 247k	228k	217k	35k		0.95	480
15496 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	30.611	14	5	0	1.294	572.564	0.065	115.121 224k	205k	199k	37k		0.953	425
15497 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	30.481	14	5	0	1.291	572.104	0.065	105.785 206k	188k	184k	34k		0.954	384
15498 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	23.665	14	5	0	1.199	523.506	0.059	86.485 169k	152k	155k	37k		0.951	325
15499 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	20.824	14	5	0	1.289	569.199	0.064	81.812 160k	146k	154k	40k		0.952	283
15500 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	25.984	14	5	0	1.283	565.418	0.064	95.916 187k	170k	171k	37k		0.958	379
15501 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	20.695	14	5	0	1.142	494.645	0.055	20.345 40k	36k	37k	10k		0.954	65
15502 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	28.4	14	5	0	1.147	490.078	0.054	24.637 48k	42k	40k	9k		0.951 100 not great current	
15504 Prod	Dummy10cm	10.549	8.035	5.65	2.398	-28.175	33.726	14	5	0	0.553	115.475	0.015	122.367 101k	44k	51k	36k		0.986	35
15505 Prod	Dummy10cm	10.549	8.035	5.65	2.398	-28.175	29.82	14	5	0	0.557	116.864	0.015	89.051 74k	32k	41k	30k		0.986	27
15506 Prod	Dummy10cm	10.549	8.035	5.65	2.398	-28.175	8.501	14	5	0	0.427	86.148	0.013	29.548 26k	10k	42k	39k		0.98	11
15507 Prod	Dummy10cm	10.549	8.035	5.65	2.398	-28.175	37.08	14	5	0	0.572	120.914	0.015	141.604 117k	51k	56k	38k		0.985	39
15508 Prod	Dummy10cm	10.549	8.035	5.65	2.398	-28.175	36.17	14	5	0	0.566	119.18	0.015	73.574 61k	26k	29k	20k		0.985	21
15509 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	31.373	14	5	0	1.343	600.864	0.068	126.534 245k	227k	220k	40k		0.954	506

Q²=6.00, W=3.19, LH+, SHMS=5.65deg

Run	Type	Target	EBeam	P_SHMS	Theta_SHMS	Theta_P_HMS	Theta_HMS	HMS_Rate	(SHMS_Rate)	Coil_Rate	Charge	Raw	Raw	Raw	S	Raw	SHMS	Hadron	Tracking	Comments	
								Current	PS1	PS4	PS5	kHz)	(kHz)	(kHz)	(mC)	HMS	HMS	Coil	EDTM	Tracking	Comments
15510 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	31.979	14	5	0	1.341	599.747	0.068	117.639 228k	211k	204k	36k		0.95	451	
15511 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	17.435	14	5	0	1.011	438.453	0.05	67.054 131k	117k	128k	39k		0.952	288	
15513 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	23.565	14	5	0	1.108	466.536	0.049	87.456 171k	148k	139k	37k		0.963	325	
15514 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	17.793	14	5	0	1.01	420.68	0.044	64.122 126k	108k	109k	37k		0.959	238	
15515 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	23.626	14	5	0	1.105	465.105	0.049	88.697 173k	150k	141k	38k		0.963	374	
15516 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	28.356	14	5	0	1.168	497.763	0.052	129.558 251k	221k	200k	45k		0.961	537	
15517 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	39.349	14	5	0	1.494	697.681	0.084	140.864 270k	262k	263k	35k		0.943	546	
15518 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	44.64	14	5	0	1.505	703.525	0.084	160.602 308k	298k	295k	35k		0.945	552	
15519 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	39.793	14	5	0	1.468	683.956	0.082	165.892 319k	308k	308k	41k		0.942	673	
15520 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	42.6	14	5	0	1.487	695.562	0.083	150.859 289k	280k	277k	35k		0.944	537	
15521 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	42.612	14	5	0	1.509	705.661	0.085	174.835 336k	326k	324k	40k		0.944	649	
15522 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	34.852	14	5	0	1.435	664.333	0.08	124.23 240k	230k	233k	35k		0.945	488	
15523 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	31.295	14	5	0	1.395	643.447	0.077	113.934 220k	210k	217k	36k		0.948	433	
15524 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	27.657	14	5	0	1.379	634.892	0.076	96.137 186k	177k	186k	35k		0.941	378	
15525 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	31.366	14	5	0	1.376	632.916	0.075	112.237 217k	206k	211k	35k		0.943	443	
15526 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	33.016	14	5	0	1.432	662.666	0.079	134.841 260k	249k	255k	40k		0.943	507	
15527 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	39.034</														

15547 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	43.95	14	5	0	1.537	719.493	0.088	164.674	318k	309k	310k	36k	0.942	619
15548 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	39.974	14	5	0	1.489	693.523	0.084	139.965	271k	261k	264k	34k	0.942	560
15549 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	42.192	14	5	0	1.518	709.031	0.086	143.703	278k	269k	272k	33k	0.941	571
15552 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	42.443	14	0	-1	1.528	714.815	0.087	144.156	4736k	270k	273k	33k	0.94	499
15553 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	45.146	14	5	0	1.555	728.8	0.089	164.969	319k	310k	311k	36k	0.945	619
15554 Prod	LH2	10.549	8.035	5.65	2.398	-28.175	43.412	14	5	0	1.522	708.643	0.086	156.268	302k	292k	294k	35k	0.943	600

Q²=6.00, W=3.19, LH+, SHMS=9.65deg

Run Type	Target	EBeam	P_SHMS	Theta_SHMS	Theta_P_HMS	Theta_HMS	Current	PS1	PS4	PS5	HMS_Rate_(kHz)	SHMS_Rate_(kHz)	Coin_Rate_(kHz)	Charge_(mC)	Raw_HMS	Raw_S	Raw_Coin	EDTM	SHMS_Tracking	Hadron_Tracking	Comments
15555 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	42.017	11	6	0	1.866	80.641	0.024	142.644	141k	196k	69k	34k	0.986	486	
15557 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	25.256	11	6	0	1.755	75.181	0.023	76.948	77k	105k	50k	31k	0.984	282	
15558 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	16.757	11	6	0	1.514	62.773	0.02	37.593	38k	50k	32k	24k	0.992	131	
15559 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	27.067	11	6	0	1.662	70.924	0.022	95.358	95k	130k	58k	36k	0.983	331	
15560 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	29.418	11	6	0	1.704	72.807	0.022	27.109	27k	37k	16k	9k	0.978	91	
15561 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	42.307	11	6	0	1.876	82.37	0.024	143.296	142k	200k	70k	34k	0.985	529	
15562 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	50.896	11	6	0	2.002	87.781	0.025	175.489	173k	244k	78k	34k	0.982	623	
15563 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	39.489	11	6	0	1.915	84.077	0.025	139.092	138k	194k	71k	35k	0.982	480	
15564 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	39.346	11	6	0	1.981	87.925	0.026	89.048	88k	125k	46k	23k	0.98	339	
15565 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	40.118	11	6	0	1.919	85.019	0.025	144.039	142k	202k	73k	36k	0.984	503	
15566 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	43.808	11	6	0	2.013	89.62	0.026	146.616	145k	207k	72k	34k	0.986	549	
15567 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	41.585	11	6	0	1.921	84.984	0.025	145.443	144k	204k	73k	35k	0.981	486	
15568 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	47.603	11	6	0	1.939	84.292	0.025	165.343	164k	229k	75k	35k	0.986	632	
15569 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	36.099	11	6	0	1.947	84.295	0.024	67.948	68k	94k	35k	19k	0.988	242	
15570 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	50.328	11	6	0	1.97	85.945	0.025	190.256	188k	264k	84k	38k	0.985	675	
15571 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	47.851	11	6	0	1.978	86.164	0.025	176.768	175k	245k	81k	37k	0.983	621	
15572 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	36.2	11	6	0	1.982	86.318	0.025	119.228	119k	166k	62k	33k	0.983	411	
15573 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	41.675	11	6	0	1.943	84.223	0.025	149.253	148k	207k	73k	36k	0.982	514	
15575 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	35.439	11	6	0	1.637	70.212	0.022	124.622	124k	171k	65k	35k	0.984	449	
15576 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	29.642	11	6	0	1.315	51.635	0.017	107.904	108k	136k	56k	37k	0.991	364	
15577 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	34.04	11	6	0	1.748	73.771	0.022	132.247	132k	178k	69k	39k	0.983	459	
15578 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	46.343	11	6	0	1.886	81.424	0.024	151.934	150k	209k	69k	33k	0.982	529	
15579 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	30.894	11	6	0	1.711	72.847	0.022	113.219	113k	154k	63k	37k	0.987	382	
15580 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	52.859	11	6	0	1.974	85.783	0.025	183.17	181k	253k	79k	35k	0.98	642	
15581 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	44.517	11	6	0	1.906	82.309	0.024	167.089	166k	230k	78k	38k	0.98	559	
15582 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	46.775	11	6	0	1.879	81.152	0.024	160.068	158k	220k	72k	34k	0.986	545	
15583 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	49.66	11	6	0	1.967	85.314	0.025	177.32	176k	245k	79k	36k	0.983	637	
15584 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	43.616	11	0	-1	1.923	83.281	0.024	102.682	3359k	142k	49k	24k	0.982	358	
15585 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	50.06	11	6	0	1.918	83.068	0.024	159.168	158k	220k	70k	32k	0.988	559	
15586 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	48.067	11	6	0	1.948	84.591	0.025	176.265	175k	244k	80k	37k	0.985	619	
15587 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	48.452	11	6	0	1.922	83.193	0.024	182.588	181k	252k	82k	38k	0.986	647	
15588 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	49.021	11	6	0	1.977	85.821	0.025	172.941	171k	239k	77k	35k	0.984	658	
15589 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	42.022	11	6	0	1.838	78.932	0.023	147.039	146k	201k	70k	35k	0.986	580	
15590 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	45.759	11	6	0	1.856	79.94	0.024	160.875	160k	221k	74k	35k	0.985	599	
15591 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	52.984	11	6	0	1.975	85.638	0.025	187	185k	259k	81k	35k	0.986	657	
15592 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	49.013	11	6	0	2.01	87.278	0.025	172.951	172k	240k	78k	35k	0.984	595	
15593 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	49.949	11	6	0	1.957	84.932	0.025	174.925	173k	242k	78k	35k	0.983	608	
15594 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	46.269	11	6	0	1.911	82.361	0.024	163.976	163k	226k	75k	35k	0.988	588	
15595 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	40.948	11	6	0	1.921	83.053	0.024	175.281	174k	242k	86k	43k	0.985	664	
15596 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	45.564	11	6	0	1.911	82.24	0.024	124.936	124k	172k	58k	27k	0.985	451	
15597 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	41.129	11	6	0	1.942	84.114	0.025	161.581	161k	224k	80k	40k	0.986	539	
15598 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	36.021	11	6	0	1.764	75.491	0.023	116.933	116k	160k	61k	33k	0.984	396	
15599 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	17.939	11	6	0	1.403	57.578	0.019	20.035	20k	27k	16k	12k	0.982	54	

Q²=6.00, W=3.19, LH+, SHMS=9.65deg

Run Type	Target	EBeam	P_SHMS	Theta_SHMS	Theta_P_HMS	Theta_HMS	Current	PS1	PS4	PS5	HMS_Rate_(kHz)	SHMS_Rate_(kHz)	Coin_Rate_(kHz)	Charge_(mC)	Raw_HMS	Raw_S	Raw_Coin	EDTM	SHMS_Tracking	Hadron_Tracking	Comments
15600 Prod	Dummy10cm	10.549	8.035	9.65	2.398	-28.175	30.931	8	4	0	0.525	11.26	0.011	101.255	159k	237k	35k	33k	0.994	28	
15601 Prod	Dummy10cm	10.549	8.035	9.65	2.398	-28.175	35.508	8	4	0	0.536	11.543	0.011	130.62	204k	306k	40k	37k	0.995	23	
15602 Prod	Dummy10cm	10.549	8.035	9.65	2.398	-28.175	33.823	8	4	0	0.531	11.437	0.011	127.846	200k	300k	41k	38k	0.986	26	
15603 Prod	Dummy10cm	10.549	8.035	9.65	2.398	-28.175	29.976	8	4	0	0.535	11.491	0.011	97.886	154k	230k	35k	33k	0.998	24	
15604 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	47.13	11	6	0	1.932	83.404	0.024	168.43	167k	232k	76k	36k	0.987	631	
15605 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	48.264	11	6	0	1.921	82.685	0.024	179.155	178k	246k	80k	37k	0.987	619	
15606 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	50.934	11	6	0	1.951	84.4	0.024	187.73	186k	259k	82k	37k	0.985	682	
15607 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	42.803	11	6	0	1.889	81.53	0.024	162.823	162k	224k	77k	38k	0.985	572	
15608 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	49.483	11	6	0	1.907	82.218	0.024	172.883	172k	238k	76k	35k	0.985	745	
15609 Prod	LH2	10.549	8.035	9.65	2.398	-28.175	46.637	11	6	0	1.891	81.715	0.024	162.586	161k	224k	74k	35k	0.988	560	

Run Type	Target	EBeam	P_SHMS	Theta_SHMS	Theta_P_HMS	Theta_HMS	Current	PS1	PS4	PS5	HMS Rate (kHz)	SHMS_Rate (kHz)	Coin_Rate (kHz)	Charge (mC)	Raw_HMS	Raw_S	Raw_Coin	EDTM	SHMS_Hadron Tracking	Comments	
15623 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	51.577	12	0	-1	0.347	149.165	0.015	71.809 423k	88k	20k	14k		0.983	155	
15624 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	33.923	12	3	0	0.242	99.965	0.013	123.204 148k	148k	45k	36k		0.984	270	
15625 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	29.192	12	3	0	0.283	116.674	0.013	116.17 140k	138k	48k	40k		0.984	211	
15626 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	39.774	12	3	0	0.303	126.55	0.014	141.714 169k	170k	46k	36k		0.984	317	
15627 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	35.766	12	3	0	0.327	138.58	0.014	64.397 77k	79k	23k	18k		0.985	130	
15628 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	28.453	12	3	0	0.282	116.736	0.013	44.621 54k	53k	19k	16k		0.989	102	
15629 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	48.776	12	3	0	0.342	146.879	0.015	175.305 206k	215k	50k	36k		0.988	352	
15630 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	25.754	12	3	0	0.278	115.879	0.013	21.418 26k	26k	10k	8k		0.992	43	
15631 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	30.428	12	3	0	0.325	139.483	0.014	107.991 129k	132k	44k	36k		0.981	221	
15632 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	40.628	12	3	0	0.336	145.913	0.014	150.363 177k	185k	49k	37k		0.979	325	
15633 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	52.704	12	3	0	0.352	153.404	0.015	187.538 219k	231k	50k	35k		0.981	376	
15634 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	38.924	12	3	0	0.339	147.248	0.014	139.089 164k	171k	46k	36k		0.983	276	
15635 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	22.351	12	3	0	0.296	125.69	0.014	78.336 95k	95k	41k	35k		0.979	177	
15636 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	10.669	12	3	0	0.16	59.369	0.011	36.303 48k	40k	37k	35k		0.99	88	
15637 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	30.344	12	3	0	0.324	138.972	0.014	108.217 129k	132k	44k	36k		0.979	216	
15638 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	17.241	12	3	0	0.285	119.86	0.013	59.697 74k	72k	40k	35k		0.982	111	
15639 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	8.135	12	3	0	0.16	57.437	0.011	26.425 37k	28k	36k	35k		0.986	59	
15640 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	0.748	12	3	0	0	0	0	0.2k	0k	9k	9k			0.0. The beam was tripped the whole run (15 minutes)	
15641 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	45.009	12	3	0	0.337	146.115	0.014	139.306 162k	170k	41k	31k		0.981	275	
15642 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	50.498	12	3	0	0.337	146.561	0.014	180.808 209k	221k	50k	36k		0.976	324	
15643 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	51.454	12	3	0	0.336	146.6	0.014	182.82 211k	223k	49k	35k		0.983	377	
15644 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	53.056	12	3	0	0.342	149.264	0.014	188.255 217k	230k	50k	35k		0.983	343	
15645 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	51.204	12	3	0	0.341	148.732	0.014	181.85 210k	222k	49k	35k		0.982	332	
15646 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	47.481	12	3	0	0.321	138.147	0.014	168.342 196k	204k	48k	35k		0.986	340	
15647 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	44.599	12	3	0	0.329	142.681	0.014	158.313 184k	193k	48k	35k		0.984	324	
15648 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	45.521	12	3	0	0.326	141.291	0.014	161.308 187k	196k	47k	35k		0.981	319	
15649 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	40.687	12	3	0	0.308	132.184	0.014	144.259 168k	174k	46k	35k		0.988	318	
15650 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	34.19	12	3	0	0.286	121.438	0.014	121.078 142k	145k	44k	35k		0.982	232	
15651 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	27.943	12	3	0	0.296	126.091	0.014	98.3 117k	118k	43k	35k		0.986	190	
15652 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	22.874	12	3	0	0.297	126.947	0.014	79.688 96k	96k	41k	35k		0.983	158	
15653 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	35.171	12	3	0	0.305	130.981	0.014	125.981 148k	152k	45k	36k		0.986	255	
15654 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	33.913	12	3	0	0.299	126.959	0.014	121.067 142k	145k	44k	36k		0.984	252	
15655 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	26.748	12	3	0	0.284	120.092	0.013	95.584 114k	114k	43k	36k		0.987	171	
15656 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	34.922	12	3	0	0.308	132.228	0.014	122.855 144k	148k	44k	35k		0.986	237	
15657 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	24.445	12	3	0	0.297	124.931	0.014	86.991 105k	104k	42k	36k		0.985	157	
15659 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	34.517	12	3	0	0.283	117.794	0.013	31.249 37k	37k	11k	9k		0.987	63	
15660 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	49.869	12	3	0	0.316	134.362	0.014	196.852 227k	235k	53k	39k		0.989	421	
15661 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	44.681	12	3	0	0.301	127.139	0.014	158.372 184k	188k	46k	35k		0.988	298	
15663 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	38.663	12	3	0	0.306	129.744	0.014	142.76 166k	170k	47k	37k		0.983	264	
15664 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	41.915	12	3	0	0.299	126.178	0.014	182.149 212k	217k	56k	43k		0.987	372	
15665 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	46.119	12	3	0	0.315	134.197	0.014	168.684 195k	202k	48k	36k		0.989	330	
15666 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	49.672	12	3	0	0.322	136.985	0.014	170.628 198k	205k	46k	34k		0.984	355	
15667 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	45.391	12	3	0	0.314	133.898	0.014	116.262 135k	139k	34k	25k		0.984	187	
15668 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	42.103	12	3	0	0.32	139.545	0.014	152.2 177k	186k	48k	36k		0.983	289	
15669 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	35.452	12	3	0	0.301	129.641	0.014	132.782 156k	161k	47k	37k		0.988	274	
15670 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	39.294	12	0	-1	0.335	146.749	0.014	175.339 1021k	215k	58k	45k		0.983	372	
15671 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	37.323	12	3	0	0.295	126.013	0.014	133.012 155k	160k	45k	36k		0.98	249	

Q²=8.50, W=2.79, LH+, SHMS=8.665deg

Run Type	Target	EBeam	P_SHMS	Theta_SHMS	Theta_P_HMS	Theta_HMS	Current	PS1	PS4	PS5	HMS Rate (kHz)	SHMS_Rate (kHz)	Coin_Rate (kHz)	Charge (mC)	Raw_HMS	Raw_S	Raw_Coin	EDTM	SHMS_Hadron Tracking	Comments
15672 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	30.666	12	3	0	0.333	144.921	0.014	139.118 164k	170k	56k	46k		0.988	280
15673 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	40.229	12	3	0	0.312	134.094	0.014	145.615 170k	176k	47k	36k		0.973	299
15674 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	34.943	12	3	0	0.303	129.818	0.014	125.967 149k	152k	46k	36k		0.979	270
15675 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	38.199	12	3	0	0.32	138.582	0.014	139.757 163k	170k	47k	37k		0.983	265
15676 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	41.588	12	3	0	0.309	133.113	0.014	148.629 173k	180k	47k	36k		0.977	281
15677 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	41.419	12	3	0	0.303	129.801	0.014	151.801 176k	183k	48k	37k		0.982	305
15678 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	40.298	12	3	0	0.303	129.982	0.014	139.261 162k	168k	45k	34k		0.984	284
15679 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	40.854	12	3	0	0.302	129.568	0.014	148.291 172k	179k	47k	36k		0.979	292
15680 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	33.077	12	3	0	0.305	130.677	0.014	66.136 78k	80k	25k	20k		0.979	130
15681 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	49.149	12	3	0	0.324	141.674	0.014	177.385 203k	216k	49k	36k		0.983	353
15682 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	37.828	12	3	0	0.299	129.124	0.014	128.386 149k	155k	43k	34k		0.987	249
15684 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	40.181	12	3	0	0.299	127.41	0.014	146.234 169k	174k	46k	36k		0.983	332
15685 Prod	LH2	10.549	7.913	8.665	2.341															

15705 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	35.104	12	3	0	0.285	121.7	0.014	123.856	145k	149k	44k	35k	0.987	245
15706 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	34.865	12	3	0	0.314	136.316	0.014	96.943	113k	118k	35k	28k	0.985	195
15707 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	43.151	12	3	0	0.305	131.691	0.014	163.023	189k	197k	50k	38k	0.981	347
15714 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	26.983	12	3	0	0.32	137.871	0.014	37.972	46k	46k	17k	14k	0.987	62
15715 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	52.154	12	3	0	0.347	151.48	0.015	168.004	196k	207k	45k	32k	0.984	346
15716 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	45.524	12	3	0	0.331	143.104	0.014	160.679	188k	197k	48k	35k	0.969	303
15717 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	46.965	12	3	0	0.335	145.323	0.014	166.394	194k	204k	48k	35k	0.937 Junk!	Bad Drift Chambers
15718 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	42.694	12	3	0	0.325	140.672	0.014	151.059	177k	185k	47k	35k	0.924 Junk!	Bad Drift Chambers
15719 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	46.559	12	3	0	0.341	148.888	0.014	165.549	193k	204k	48k	35k	0.927 Junk!	Bad Drift Chambers
15720 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	38.58	12	3	0	0.324	140.289	0.014	139.096	163k	170k	47k	36k	0.928 Junk!	Bad Drift Chambers
15722 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	41.823	12	3	0	0.328	143.218	0.014	97.497	114k	120k	31k	23k	0.936 Junk!	Bad Drift Chambers
15727 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	19.304	12	3	0	0.294	126.181	0.014	67.232	82k	82k	40k	36k	0.984	158
15729 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	3.43	12	3	0	0.318	139.256	0.014	152.35	177k	187k	47k	35k	0.982	336
15730 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	38.149	12	3	0	0.304	131.789	0.014	136.679	159k	166k	46k	36k	0.98	312
15731 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	34.881	12	3	0	0.29	124.366	0.014	124.007	145k	150k	44k	36k	0.979	257
15732 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	27.502	12	3	0	0.298	129.424	0.014	103.379	122k	126k	46k	38k	0.981	212
15733 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	24.455	12	3	0	0.193	72.548	0.012	19.353	23k	21k	9k	9k	0.991 junk	
15734 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	47.42	12	3	0	0.305	131.46	0.014	186.569	215k	225k	53k	39k	0.985	383
15735 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	42.3	12	3	0	0.281	119.172	0.013	156.279	181k	186k	47k	37k	0.982	294
15736 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	46.225	12	3	0	0.309	133.15	0.014	154.159	178k	186k	44k	33k	0.976	316
15737 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	52.711	12	3	0	0.338	149.594	0.015	194.508	223k	240k	52k	37k	0.987	395
15738 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	50.507	12	3	0	0.334	147.526	0.014	184.955	212k	228k	51k	36k	0.979	374
15739 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	49.231	12	3	0	0.325	143.051	0.014	163.196	188k	200k	46k	34k	0.982	337
15740 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	49.189	12	3	0	0.329	145.173	0.014	191.802	220k	236k	54k	39k	0.984	393
15741 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	52.033	12	3	0	0.339	149.646	0.014	178.305	205k	220k	48k	34k	0.984	362
15742 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	49.177	12	3	0	0.327	143.939	0.014	172.233	198k	211k	49k	36k	0.982	332
15743 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	37.437	12	3	0	0.333	146.72	0.014	124.503	145k	153k	43k	33k	0.982	242
15744 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	39.612	12	3	0	0.312	135.952	0.014	141.133	164k	172k	46k	36k	0.981	302
15745 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	31.482	12	3	0	0.308	133.989	0.014	111.909	132k	137k	44k	36k	0.984	218
15747 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	37.467	12	3	0	0.323	141.63	0.014	132.378	154k	162k	45k	35k	0.983	274
15749 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	27.989	12	3	0	0.294	127.164	0.014	94.13	111k	114k	41k	34k	0.981	215

Q²=8.50, W=2.79, LH+, SHMS=8.665deg

Run	Type	Target	EBeam	P_SHMS	Theta_SHMS	Theta_HMS	HMS	Current	PS1	PS4	PS5	HMS_Rate_	(SHMS_Rate_	Coin_Rate_	Charge_Raw	Raw_SRaw	Raw_Coin	EDTM	SHMS_Hadron_Tracking	Comments	
												(kHz)	(kHz)	(mC)	HMS	HMS	HMS				
15750 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	44.254	12	0	-1	0.316	138.29	0.014	158.916	917k	194k	48k	36k	0.981	342	
15751 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	20.097	12	3	0	0.237	98.342	0.013	45.694	55k	54k	26k	23k	0.981	94	
15752 Prod	Dummy10cm	10.549	7.913	8.665	2.341	-34.105	6.823	10	3	0	0.076	10.943	0.01	22.259	20k	21k	36k	36k	1	4	
15753 Prod	Dummy10cm	10.549	7.913	8.665	2.341	-34.105	2.25	10	3	0	0.063	8.618	0.01	5.41	10k	5k	36k	35k	1	1	
15756 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	36.563	12	3	0	0.282	117.538	0.013	46.862	55k	56k	16k	13k	0.988	93	
15757 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	18.294	12	3	0	0.131	44.49	0.011	41.992	52k	42k	25k	23k	0.989	114	
15759 Prod	Dummy10cm	10.549	7.913	8.665	2.341	-34.105	24.856	9	2	0	0.108	16.739	0.01	93.727	104k	182k	39k	38k	0.988	4	
15760 Prod	Dummy10cm	10.549	7.913	8.665	2.341	-34.105	36.201	9	2	0	0.121	19.155	0.01	130.776	139k	255k	37k	36k	0.991	10	
15761 Prod	Dummy10cm	10.549	7.913	8.665	2.341	-34.105	33.017	9	1	0	0.12	19.016	0.01	137.545	221k	269k	43k	42k	0.996	13	
15762 Prod	Dummy10cm	10.549	7.913	8.665	2.341	-34.105	34.757	9	1	0	0.119	18.964	0.01	117.202	186k	229k	34k	34k	0.995	7	
15763 Prod	Dummy10cm	10.549	7.913	8.665	2.341	-34.105	15.873	9	1	0	0.12	19.13	0.01	32.592	58k	64k	21k	21k	0.983	6	
15765 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	43.354	12	3	0	0.305	132.935	0.014	154.179	177k	187k	46k	35k	0.984	286	
15766 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	47.262	12	3	0	0.311	135.036	0.014	183.4	210k	221k	52k	39k	0.982	355	
15767 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	44.175	12	3	0	0.326	143.652	0.014	163.81	188k	200k	49k	37k	0.982	312	
15768 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	43.375	12	3	0	0.313	136.99	0.014	165.004	190k	201k	50k	38k	0.985	343	
15769 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	47.036	12	3	0	0.32	141.27	0.014	177.282	203k	218k	51k	38k	0.981	327	
15770 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	41.139	12	3	0	0.312	137.647	0.014	143.805	165k	176k	46k	35k	0.986	283	
15771 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	36.062	12	3	0	0.321	142.163	0.014	130.302	151k	160k	46k	36k	0.984	264	
15772 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	44.028	12	3	0	0.298	127.968	0.014	187.243	215k	224k	55k	42k	0.984	377	
15773 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	38.902	12	3	0	0.294	125.646	0.013	139.285	161k	165k	45k	36k	0.986	267	
15775 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	20.656	12	3	0	0.244	99.861	0.012	48.441	58k	56k	27k	24k	0.985	113	
15776 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	31.854	12	3	0	0.238	95.034	0.012	127.044	149k	143k	47k	40k	0.985	256	
15777 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	26.829	12	3	0	0.315	138.833	0.014	106.999	126k	130k	48k	40k	0.986	199	
15778 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	30.173	12	3	0	0.306	132.767	0.014	115.601	135k	139k	47k	39k	0.988	209	
15779 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	25.992	12	3	0	0.281	120.302	0.013	84.58	100k	101k	39k	33k	0.984	183	
15780 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	46.383	12	3	0	0.308	133.724	0.014	178.279	204k	215k	51k	38k	0.981	381	
15781 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	51.315	12	3	0	0.322	140.489	0.014	192.515	219k	233k	51k	37k	0.984	409	
15782 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	49.966	12	3	0	0.318	138.502	0.014	179.719	205k	217k	49k	36k	0.986	374	
15783 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	49.602	12	3	0	0.315	137.102	0.014	175.248							

15802 Prod	Dummy10cm	10.549	7.913	8.665	2.341	-34.105	34.536	12	3	0	0.12	19.256	0.01	122.602 78k	30k	36k	35k	1	14
15803 Prod	Dummy10cm	10.549	7.913	8.665	2.341	-34.105	33.106	12	3	0	0.122	19.461	0.01	128.697 82k	32k	40k	39k	0.996	15
15804 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	41.913	12	3	0	0.299	129.771	0.014	149.463 171k	179k	46k	36k	0.983	281
15805 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	4.414	12	3	0	0.239	101.77	0.013	2.21 4k	3k	6k	6k	1 junk	
15806 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	4.226	12	3	0	0.309	134.418	0.014	146.744 168k	176k	46k	36k	0.988	301
15807 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	42.118	12	0	-1	0.297	128.195	0.014	152.292 872k	182k	47k	36k	0.984	298
15808 Prod	LH2	10.549	7.913	8.665	2.341	-34.105	31.866	12	3	0	0.263	111.882	0.013	55.055 64k	65k	21k	17k	0.989	131

Q²=2.45, W=3.20, LH+, SHMS=10.755deg

Run Type	Target	EBeam	P_SHMS	Theta SHMS	P_HMS	Theta HMS	Current	PS1	PS4	PS5	HMS_Rate_ (kHz)	SHMS_Rate_ (kHz)	Coin_Rate_ (kHz)	Charge_ (mC)	Raw_HMS	Raw_SRaw_HMS	Raw_Coin	EDTM	SHMS_Hadron_Tracking	Comments
15810 Prod	LH2	10.549	6.265	10.755	4.256	-13.41	21.301	12	10	0	20.65	57.126	0.151	72.056 100k	69k	385k	34k	0.992	10919	
15811 Prod	LH2	10.549	6.265	10.755	4.256	-13.41	9.358	12	10	0	12.535	33.793	0.079	18.854 27k	18k	96k	21k	0.994	2921	
15812 Prod	LH2	10.549	6.265	10.755	4.256	-13.41	25.663	12	10	0	26.311	74.505	0.231	61.133 85k	60k	390k	24k	0.99	9216	
15813 Prod	LH2	10.549	6.265	10.755	4.256	-13.41	19.617	12	10	0	23.97	67.241	0.2	42.242 59k	41k	262k	22k	0.991	6343	
15814 Prod	LH2	10.549	6.265	10.755	4.256	-13.41	24.682	12	10	0	21.363	58.582	0.152	79.548 111k	76k	410k	32k	0.992	11915	
15815 Prod	Dummy10cm	10.549	6.265	10.755	4.256	-13.41	25.343	12	10	0	7.17	14.721	0.029	44.478 22k	11k	47k	18k	0.994	504	

Q²=2.45, W=3.20, LH+, SHMS=8.755deg and FADC Deadtime Scan

15816 Prod	LH2	10.549	6.265	8.755	4.256	-13.41	34.129	12	10	0	26.999	208.964	0.481	121.927 170k	330k	1561k	35k	0.985	29869
15817 Prod	LH2	10.549	6.265	8.755	4.256	-13.41	30.148	12	10	0	25.527	196.743	0.445	47.384 66k	128k	597k	16k	0.986	11651
15819 Prod	LH2	10.549	6.265	8.755	4.256	-13.41	18.801	13	9	0	25.306	194.9	0.442	20.283 57k	27k	260k	11k	0.985	4999
15820 Prod	LH2	10.549	6.265	8.755	4.256	-13.41	26.87	13	9	0	25.603	196.844	0.448	50.901 143k	69k	646k	19k	0.985	12595
15821 Prod	Dummy10cm	10.549	6.265	8.755	4.256	-13.41	16.877	13	9	0	8.195	42.079	0.053	64.907 64k	21k	125k	39k	0.994	1166
15828 Prod	LH2	10.549	6.265	8.755	4.256	-13.41	24.076	13	9	0	25.553	198.227	0.506	40.836 115k	56k	590k	17k	0.983 fadc deadtime at 50uA	
15830 Prod	LH2	10.549	6.265	8.755	4.256	-13.41	10.483	12	9	0	17.089	127.83	0.231	12.329 35k	33k	129k	12k	0.989 fadc deadtime at 30 uA	
15831 Prod	LH2	10.549	6.265	8.755	4.256	-13.41	23.579	12	9	0	20.568	154.75	0.291	49.725 141k	133k	515k	21k	0.988 fadc deadtime at 30 uA	
15833 Prod	LH2	10.549	6.265	8.755	4.256	-13.41	18.736	11	8	0	14.234	104.743	0.155	61.299 347k	321k	488k	33k	0.991 fadc deadtime for 20 uA	
15834 Prod	LH2	10.549	6.265	8.755	4.256	-13.41	11.128	11	8	0	8.628	62.286	0.073	56.56 323k	294k	357k	51k	0.994 fadc deadtime at 12 uA	
15835 Prod	LH2	10.549	6.265	8.755	4.256	-13.41	47.58	13	10	0	41.809	335.792	1.135	97.482 137k	138k	1909k	20k	0.977 fadc deadtime at 65 uA	
15836 Prod	LH2	10.549	6.265	8.755	4.256	-13.41	47.702	13	10	0	35.203	275.304	0.767	41.601 59k	57k	656k	9k	0.982 fadc deadtime at 50 uA	

Q²=2.45, W=3.20, LH+, SHMS=6.755deg

15837 FADC	LH2	10.549	6.265	6.765	4.256	-13.41	36.611	14	9	0	26.607	551.811	1.052	4.508 13k	8k	130k	1k	0.968 fadcmode10	
15838 Prod	LH2	10.549	6.265	6.765	4.256	-13.41	33.961	14	9	0	25.83	533.809	1.012	39.907 113k	73k	1140k	11k	0.972	7677
15839 Prod	LH2	10.549	6.265	6.765	4.256	-13.41	23.211	14	9	0	25.321	523.215	0.984	69.879 198k	129k	1990k	30k	0.971	13585
15840 Prod	Dummy10cm	10.549	6.265	6.765	4.256	-13.41	30.751	14	9	0	9.039	119.008	0.103	56.752 56k	23k	168k	18k	0.99	1031
15841 Prod	LH2	10.549	6.265	6.765	4.256	-13.41	21.678	14	9	0	22.428	460.517	0.834	49.838 142k	91k	1360k	23k	0.973	9888
15842 Prod	LH2	10.549	6.265	6.765	4.256	-13.41	29.617	14	9	0	25.093	517.666	0.973	105.878 301k	194k	2999k	35k	0.972	20544

Q²=3.85, W=3.07, LH+, SHMS=7.915deg

Run Type	Target	EBeam	P_SHMS	Theta SHMS	P_HMS	Theta HMS	Current	PS1	PS4	PS5	HMS_Rate_ (kHz)	SHMS_Rate_ (kHz)	Coin_Rate_ (kHz)	Charge_ (mC)	Raw_HMS	Raw_SRaw_HMS	Raw_Coin	EDTM	SHMS_Hadron_Tracking	Comments
15843 Prod	LH2	10.549	6.538	7.915	3.944	-17.49	35.058	14	8	0	7.096	305.001	0.195	102.509 136k	92k	485k	29k	0.978	5846	
15845 Prod	LH2	10.549	6.538	7.915	3.944	-17.49	39.55	14	8	0	8.402	371.682	0.279	128.934 170k	118k	734k	32k	0.972	7017	
15846 Prod	LH2	10.549	6.538	7.915	3.944	-17.49	37.449	14	8	0	8.499	373.609	0.268	123.253 163k	112k	669k	33k	0.975	6788	
15847 Prod	LH2	10.549	6.538	7.915	3.944	-17.49	31.487	14	8	0	8.31	363.193	0.254	85.14 112k	77k	452k	27k	0.975	4801	
15848 Prod	LH2	10.549	6.538	7.915	3.944	-17.49	44.763	14	8	0	9.102	400.013	0.285	81.951 108k	75k	440k	18k	0.975	4507	
15849 Prod	LH2	10.549	6.538	7.915	3.944	-17.49	41.716	14	8	0	9.569	425.551	0.327	80.964 107k	75k	474k	19k	0.972	4383	
15850 Prod	LH2	10.549	6.538	7.915	3.944	-17.49	20.665	14	8	0	8.956	398.106	0.308	30.395 40k	28k	187k	15k	0.972	1681	
15851 Prod	LH2	10.549	6.538	7.915	3.944	-17.49	36.935	14	8	0	9.254	411.314	0.315	138.267 182k	127k	811k	37k	0.972	7448	
15852 Prod	Dummy10cm	10.549	6.538	7.915	3.944	-17.49	36.485	14	8	0	2.356	62.088	0.024	103.402 49k	20k	67k	28k	0.993	472	

Q²=3.85, W=3.07, LD+, SHMS=7.915deg

15853 Prod	LD2	10.549	6.538	7.915	3.944	-17.49	33.934	13	8	0	13.65	533.322	0.529	130.081 355k	437k	1782k	38k	0.972	9251
15854 Prod	LD2	10.549	6.538	7.915	3.944	-17.49	27.319	13	8	0	13.5	527.279	0.521	118.859 325k	400k	1631k	43k	0.972	8407
15855 Prod	LD2	10.549	6.538	7.915	3.944	-17.49	23.516	13	8	0	12.342	482.192	0.463	82.635 226k	278k	1103k	35k	0.973	5874
15858 Prod	LD2	10.549	6.538	7.915	3.944	-17.49	1.734	11	6	0	2.795	101.994	0.038	0.685 8k	10k	10k	7k	0.989	39
15859 Prod	LD2	10.549	6.538	7.915	3.944	-17.49	4.079	11	6	0	8.49	330.627	0.296	6.295 68k	85k	94k	18k	0.975	481
15860 Prod	LD2	10.549	6.538	7.915	3.944	-17.49	30.763	11	6	0	13.232	538.862	0.527	40.385 430k	564k	566k	13k	0.971	2714
15861 Prod	LD2	10.549	6.538	7.915	3.944	-17.49	33.841	11	6	0	13.242	520.403	0.513	80.552 858k	1085k	1098k	23k	0.973	5736
15862 Prod	LD2	10.549	6.538	7.915	3.944	-17.49	19.98	11	6	0	9.882	384.98	0.348	82.672 886k	1110k	1038k	41k	0.974	5977
15864 Prod	LD2	10.549	6.538	7.915	3.944	-17.49	24.258	11	6	0	12.735	499.776	0.484	41.637 444k	561k	562k	17k	0.973	2942

Q²=3.85, W=3.07, LD+, SHMS=9.915deg

15865 Prod	LD2	10.549	6.538	9.915	3.944	-17.49	32.999	11	6	0	15.403	222.867	0.307	116.507 1236k	575k	820k	35k	0.982	9233
15866 Prod	LD2	10.549	6.538	9.915	3.944	-17.49	40.27	11	6	0	16.23	250.209	0.335	44.72 474k	235k	324k	11k	0.981	3444
15867 Prod	LD2	10.549	6.538	9.915															

15887 Prod	LH2	10.549	6.538	11.915	3.944	-17.49	22.583	11	8	0	5.729	30.497	0.039	21.128k	19k	28k	9k	0.992	942
15888 Prod	LH2	10.549	6.538	11.915	3.944	-17.49	25.078	10	7	0	8.426	47.571	0.064	62.311163k	117k	93k	25k	0.982	2584
15890 Prod	LH2	10.549	6.538	11.915	3.944	-17.49	39.014	10	8	0	10.146	59.009	0.082	138.046181k	265k	202k	35k	0.99	5700
15891 Prod	LH2	10.549	6.538	11.915	3.944	-17.49	33.205	10	8	0	9.454	54.602	0.076	117.013154k	223k	173k	35k	0.99	4922
15893 Prod	LH2	10.549	6.538	11.915	3.944	-17.49	22.283	10	8	0	8.975	51.443	0.07	75.788100k	144k	121k	35k	0.982	3221
15894 Prod	LH2	10.549	6.538	11.915	3.944	-17.49	49.614	11	8	0	10.184	59.256	0.082	130.51171k	125k	183k	26k	0.991	5449
15896 Prod	LH2	10.549	6.538	11.915	3.944	-17.49	56.621	11	8	0	10.549	61.582	0.086	151.536199k	146k	211k	27k	0.99	6317
15897 Prod	LH2	10.549	6.538	11.915	3.944	-17.49	58.221	11	8	0	10.857	63.406	0.089	142.505187k	138k	200k	24k	0.99	5912
15899 Prod	Dummy10cm	10.549	6.538	11.915	3.944	-17.49	35.388	8	6	0	2.361	9.986	0.016	122.555227k	246k	53k	35k	0.995	345

Q²=3.85, W=3.07, LD+, SHMS=7.915deg

15900 Prod	LD2	10.549	6.538	11.915	3.944	-17.49	50.965	12	9	0	20.491	115.742	0.23	97.311132k	93k	382k	19k	0.984	4998
15901 Prod	LD2	10.549	6.538	11.915	3.944	-17.49	50.741	12	9	0	21.311	120.719	0.241	81.731110k	78k	324k	16k	0.984	4164
15903 Prod	LD2	10.549	6.538	11.915	3.944	-17.49	55.255	12	9	0	21.652	122.944	0.246	99.414134k	95k	395k	18k	0.985	5089
15904 Prod	LD2	10.549	6.538	11.915	3.944	-17.49	54.847	12	9	0	21.371	120.713	0.242	90.995123k	87k	360k	16k	0.984	4576
15905 Prod	LD2	10.549	6.538	11.915	3.944	-17.49	44.82	12	9	0	22.183	125.728	0.254	64.42487k	62k	261k	14k	0.985	3218
15906 Prod	LD2	10.549	6.538	11.915	3.944	-17.49	42.536	12	9	0	19.265	107.746	0.21	77.261105k	74k	298k	18k	0.985	3926
15907 Prod	LD2	10.549	6.538	11.915	3.944	-17.49	56.216	12	9	0	22.72	128.756	0.262	103.351140k	99k	417k	18k	0.984	5217
15908 Prod	LD2	10.549	6.538	11.915	3.944	-17.49	53.131	12	9	0	20.655	115.825	0.229	94.745129k	91k	369k	18k	0.985	4802
15909 Prod	LD2	10.549	6.538	11.915	3.944	-17.49	52.831	12	9	0	21.962	124.157	0.251	100.064136k	96k	401k	19k	0.984	5029

Q²=5.00, W=2.95, LH+, SHMS=8.47deg

Run Type	Target	EBeam	P_SHMS	Theta_SHMS	Theta_P_HMS	Theta_HMS	Current	PS1	PS4	PS5	HMS Rate (kHz)	SHMS_Rate (kHz)	Coin_Rate (kHz)	Charge (mC)	Raw_HMS	Raw_SRaw	Raw_Coin	SHMS_Hadron	EDTM	Tracking	Comments
15910 Prod	LH2	10.549	6.719	8.47	3.716	-20.57	48.689	13	6	0	3.76	308.895	0.108	174.819334k	221k	324k	36k	0.976			4375
15912 Prod	LH2	10.549	6.719	8.47	3.716	-20.57	47.064	13	6	0	3.624	296.777	0.103	174.062333k	220k	319k	37k	0.977			4307
15913 Prod	LH2	10.549	6.719	8.47	3.716	-20.57	47.378	13	6	0	3.92	323.548	0.114	174.365333k	221k	328k	36k	0.976			4212
15914 Prod	LH2	10.549	6.719	8.47	3.716	-20.57	49.529	13	6	0	3.935	324.258	0.114	157.834302k	200k	296k	32k	0.976			3631
15915 Prod	LH2	10.549	6.719	8.47	3.716	-20.57	48.619	13	6	0	4.025	332.375	0.117	75.56144k	96k	143k	15k	0.975			1854
15916 Prod	LH2	10.549	6.719	8.47	3.716	-20.57	47.188	13	6	0	3.782	311.014	0.108	209.076400k	265k	387k	44k	0.976	e pi n events: 5038		
15917 Prod	LH2	10.549	6.719	8.47	3.716	-20.57	48.455	13	6	0	3.955	326.777	0.115	170.003325k	216k	320k	35k	0.976	4106 pions		
15918 Prod	LH2	10.549	6.719	8.47	3.716	-20.57	50.129	13	6	0	3.886	320.618	0.113	177.409339k	225k	330k	35k	0.975	4312 pions		
15919 Prod	LH2	10.549	6.719	8.47	3.716	-20.57	53.367	13	6	0	4.048	334.784	0.119	146.744280k	186k	275k	27k	0.976	3484 pions		
15920 Prod	LH2	10.549	6.719	8.47	3.716	-20.57	47.388	13	6	0	3.999	330.629	0.116	171.659327k	218k	323k	35k	0.976	4174 pions		
15921 Prod	LH2	10.549	6.719	8.47	3.716	-20.57	48.36	13	6	0	3.792	312.358	0.109	164.714315k	209k	304k	34k	0.976	3928 pions		
15922 Prod	LH2	10.549	6.719	8.47	3.716	-20.57	51.366	13	6	0	3.859	318.287	0.111	200.848383k	255k	370k	38k	0.976			4843
15923 Prod	LH2	10.549	6.719	8.47	3.716	-20.57	16.467	13	6	0	1.854	143.363	0.043	10.28120k	12k	18k	6k	0.981			272
15926 Prod	Dummy10cm	10.549	6.719	8.47	3.716	-20.57	20.04	10	4	0	0.862	41.295	0.014	38.722101k	84k	24k	20k	0.993			70
15927 Prod	Dummy10cm	10.549	6.719	8.47	3.716	-20.57	33.228	10	4	0	0.885	42.502	0.014	119.301307k	258k	50k	36k	0.995			227
15928 Prod	Dummy10cm	10.549	6.719	8.47	3.716	-20.57	29.377	10	4	0	0.872	41.73	0.014	58.735151k	127k	27k	20k	0.994			116

Q²=5.00, W=2.95, LH+, SHMS=10.475deg

15929 Prod	Dummy10cm	10.549	6.719	10.475	3.716	-20.57	35.114	8	4	0	0.881	16.52	0.013	125.415322k	420k	46k	36k	0.996	125.415 dummy		
15930 Prod	Dummy10cm	10.549	6.719	10.475	3.716	-20.57	36.12	8	4	0	0.892	16.699	0.013	131.632338k	441k	47k	36k	0.995	280 dummy		
15932 Prod	LH2	10.549	6.719	10.475	3.716	-20.57	54.425	10	6	0	3.928	112.718	0.057	191.411365k	673k	178k	35k	0.987			5299
15934 Prod	LH2	10.549	6.719	10.475	3.716	-20.57	52.746	11	6	0	4.025	115.963	0.059	179.888343k	318k	171k	34k	0.987			5004
15935 Prod	LH2	10.549	6.719	10.475	3.716	-20.57	47.725	11	6	0	4.06	116.613	0.059	145.686278k	257k	140k	30k	0.987			4168
15936 Prod	LH2	10.549	6.719	10.475	3.716	-20.57	51.521	11	6	0	3.921	112.765	0.057	183.19349k	323k	173k	35k	0.986			5160
15937 Prod	LH2	10.549	6.719	10.475	3.716	-20.57	43.874	11	6	0	3.619	103.031	0.052	83.675160k	146k	80k	19k	0.987			2381
15944 Prod	LH2	10.549	6.719	10.475	3.716	-20.57	48.701	12	7	0	4.11	120.438	0.063	171.469166k	154k	173k	35k	0.986			4814
15945 Prod	LH2	10.549	6.719	10.475	3.716	-20.57	32.849	12	7	0	3.897	113.701	0.059	116.948113k	105k	129k	36k	0.985			3194
15946 Prod	LH2	10.549	6.719	10.475	3.716	-20.57	54.347	12	7	0	4.002	115.94	0.059	191.981186k	171k	183k	35k	0.986			5393
15947 Prod	LH2	10.549	6.719	10.475	3.716	-20.57	46.998	12	7	0	4.15	121.912	0.064	166.153160k	149k	170k	35k	0.986			4737
15948 Prod	LH2	10.549	6.719	10.475	3.716	-20.57	44.311	12	7	0	4.146	121.562	0.063	148.76144k	134k	154k	34k	0.986			4131
15949 Prod	LH2	10.549	6.719	10.475	3.716	-20.57	52.58	12	7	0	4.168	121.681	0.063	188.912183k	169k	186k	36k	0.987			5199
15950 Prod	LH2	10.549	6.719	10.475	3.716	-20.57	55.226	12	7	0	4.037	116.707	0.059	199.501193k	177k	188k	36k	0.986			5690
15951 Prod	LH2	10.549	6.719	10.475	3.716	-20.57	58.819	12	7	0	4.084	118.067	0.059	209.075202k	186k	195k	35k	0.987			5973

Q²=5.00, W=2.95, LH+, SHMS=12.47deg

15954 Prod	LH2	10.549	6.719	12.47	3.716	-20.57	55.792	10	7	0	4.095	45.481	0.036	198.65192k	271k	116k	35k	0.991			3974
15955 Prod	LH2	10.549	6.719	12.47	3.716	-20.57	51.481	10	7	0	3.871	42.753	0.034	182.498177k	248k	108k	35k	0.992			3672
15956 Prod	LH2	10.549	6.719	12.47	3.716	-20.57	53.643	10	7	0	3.975	43.974	0.035	190.606185k	259k	112k	35k	0.991			3748
15957 Prod	LH2	10.549	6.719	12.47	3.716	-20.57	48.174	10	7	0	3.858	42.552	0.034	171.497167k	233k	104k	36k	0.992			3316
15959 Prod	LH2	10.549	6.719	12.47	3.716	-20.57	54.613	10	7	0	4.034	44.736	0.036	154.663150k	211k	91k	28k	0.992			3047
15960 Prod	LH2	10.549	6.719	12.47	3.716	-20.57	44.626	10	7	0	3.768	41.526	0.034	149.731146k	203k	93k	34k	0.991			2896
15963 Prod	Dummy10cm	10.549	6.719	12.47	3.716	-20.57	31.332	10	7	0	0.833	6.883	0.012	83.81130k	30k	31k	27k	0.995			97
15964 Prod	Dummy10cm	10.549	6.719	12.47	3.716	-20.57	33.091	10	7	0	0.873	7.014	0.012	86.67231k	31k	31k	26k	0.997			114
15965 Prod	Dummy10cm	10.549	6.719	12.47	3.716	-20.57	35.464	10	7	0	0.887	7.147	0.012	110.92740k	40k	37k	31k	0.993			125
15																					

15979 Prod	LD2	10.549	5.127	12.28	5.309	-15.06	59.309	13	10	0	31.228	320.694	0.779	160.784	146k	188k	1869k	27k	0.977	13926
15980 Prod	Dummy10cm	10.549	5.127	12.28	5.309	-15.06	36.283	9	6	0	3.293	28.757	0.021	52.51	137k	153k	30k	14k	0.996	298
15981 Prod	LD2	10.549	5.127	12.28	5.309	-15.06	39.796	13	10	0	30.088	308.318	0.742	45.727	42k	53k	531k	11k	0.977	3909
15982 Prod	LD2	10.549	5.127	12.28	5.309	-15.06	60.029	13	10	0	32.243	330.646	0.812	213.762	195k	250k	2519k	35k	0.977	18314

Q²=3.85, W=2.62, LD-, SHMS=14.275deg

15984 Prod	LD2	10.549	5.127	14.275	5.309	-15.06	57.454	12	10	0	31.674	142.432	0.382	69.306	63k	71k	393k	12k	0.983	5852
15985 Prod	LD2	10.549	5.127	14.275	5.309	-15.06	60.261	12	10	0	31.959	143.748	0.384	214.036	195k	220k	1209k	35k	0.983	18194
15986 Prod	LD2	10.549	5.127	14.275	5.309	-15.06	59.269	12	10	0	31.763	142.817	0.381	210.695	192k	216k	1188k	35k	0.983	17768
15987 Prod	LD2	10.549	5.127	14.275	5.309	-15.06	51.168	12	10	0	31.772	142.545	0.381	149.012	136k	153k	846k	29k	0.984	12469
15988 Prod	LD2	10.549	5.127	14.275	5.309	-15.06	46.892	12	10	0	30.898	138.464	0.368	50.86	47k	52k	288k	11k	0.983	4421
15989 Prod	Dummy10cm	10.549	5.127	14.275	5.309	-15.06	34.275	12	10	0	3.249	12.479	0.017	86.366	15k	14k	41k	25k	0.996	448
15990 Prod	LD2	10.549	5.127	14.275	5.309	-15.06	52.573	12	10	0	29.367	131.368	0.345	41.124	38k	42k	228k	8k	0.985	3442

Q²=3.85, W=2.62, LD-, SHMS=16.28deg

15991 Prod	LD2	10.549	5.127	16.28	5.309	-15.06	66.089	12	10	0	32.565	69.358	0.205	112.656	103k	55k	333k	17k	0.984	6208
15992 Prod	LD2	10.549	5.127	16.28	5.309	-15.06	64.792	11	10	0	32.22	68.565	0.203	138.102	126k	134k	409k	21k	0.983	7794
15994 Prod	LD2	10.549	5.127	16.28	5.309	-15.06	59.572	11	10	0	31.859	67.636	0.198	112.935	103k	110k	333k	19k	0.985	6167
15995 Prod	LD2	10.549	5.127	16.28	5.309	-15.06	56.643	11	10	0	32.257	68.444	0.202	112.539	103k	109k	335k	20k	0.985	6382
15996 Prod	LD2	10.549	5.127	16.28	5.309	-15.06	59.48	11	10	0	32.562	69.12	0.204	147.395	135k	144k	439k	25k	0.983	8144
15997 Prod	LD2	10.549	5.127	16.28	5.309	-15.06	53.364	11	10	0	31.139	65.928	0.194	158.044	145k	154k	469k	30k	0.985	8901
15998 Prod	LD2	10.549	5.127	16.28	5.309	-15.06	60.887	11	10	0	31.659	66.747	0.197	69.604	64k	67k	204k	11k	0.984	3815
15999 Prod	LD2	10.549	5.127	16.28	5.309	-15.06	62.925	11	10	0	31.899	67.629	0.2	150.667	138k	146k	446k	24k	0.984	8407
16000 Prod	LD2	10.549	5.127	16.28	5.309	-15.06	46.207	11	10	0	29.14	61.451	0.179	82.45	76k	80k	244k	18k	0.985	4744
16001 Prod	Dummy10cm	10.549	5.127	16.28	5.309	-15.06	36.437	11	10	0	3.325	6.009	0.014	71.951	12k	11k	28k	20k	0.994	226

Q²=6.00, W=2.40, LD-, SHMS=16.91deg

Run	Type	Target	EBeam	P_SHMS	SHMS	P_HMS	HMS	Current	PS1	PS4	PS5	HMS_Rate (kHz)	SHMS_Rate (kHz)	Coin_Rate (kHz)	Charge (mC)	Raw_HMS	Raw_S	Raw_Coin	EDTM	SHMS_Hadron Tracking	Comments	
16002 Prod	Dummy10cm	10.549	5.512	16.91	4.752	-19.915	35.865	7	3	0	0.45	4.117	0.011	84.245	196k	138k	25k	23k		0.99	36	
16005 Prod	LD2	10.549	5.512	16.91	4.752	-19.915	63.529	10	7	0	4.335	48.16	0.031	211.55	202k	285k	97k	33k		0.985	1725	
16006 Prod	LD2	10.549	5.512	16.91	4.752	-19.915	61.632	10	7	0	4.294	47.626	0.03	220.451	211k	297k	101k	36k		0.984	1734	
16007 Prod	LD2	10.549	5.512	16.91	4.752	-19.915	55.743	10	7	0	4.397	48.831	0.031	196.717	188k	265k	94k	35k		0.986	1542	
16008 Prod	LD2	10.549	5.512	16.91	4.752	-19.915	60.068	10	7	0	4.224	46.849	0.03	213.247	204k	287k	99k	35k		0.983	1633	
16009 Prod	LD2	10.549	5.512	16.91	4.752	-19.915	55.957	10	7	0	4.111	46.285	0.029	168.079	158k	226k	79k	30k		0.984	1274	
16010 Prod	LD2	10.549	5.512	16.91	4.752	-19.915	49.476	10	7	0	3.849	42.443	0.028	72.266	69k	97k	36k	15k		0.981	581	

Q²=6.00, W=2.40, LD-, SHMS=14.905deg

16011 Prod	LD2	10.549	5.512	14.905	4.752	-19.915	48.51	10	7	0	4.384	96.728	0.048	160.212	153k	428k	119k	33k		0.981	1857
16012 Prod	LD2	10.549	5.512	14.905	4.752	-19.915	53.329	10	7	0	4.104	90.357	0.045	170.027	163k	454k	121k	32k		0.983	1955
16017 Prod	LD2	10.549	5.512	14.905	4.752	-19.915	54.387	11	7	0	3.91	85.706	0.042	192.912	185k	257k	135k	35k		0.986	2286
16018 Prod	LD2	10.549	5.512	14.905	4.752	-19.915	33.482	11	7	0	3.436	74.432	0.036	117.424	114k	156k	91k	35k		0.984	1385
16019 Prod	LD2	10.549	5.512	14.905	4.752	-19.915	50.6	11	7	0	4.227	93.124	0.046	179.683	172k	240k	131k	35k		0.983	2059
16020 Prod	LD2	10.549	5.512	14.905	4.752	-19.915	53.655	11	7	0	4.2	92.611	0.045	186.999	179k	250k	133k	35k		0.981	2151
16021 Prod	LD2	10.549	5.512	14.905	4.752	-19.915	63.29	11	7	0	4.239	93.454	0.046	255.26	244k	341k	176k	40k		0.983	2801
16022 Prod	Dummy10cm	10.549	5.512	14.905	4.752	-19.915	36.3	11	7	0	0.439	8.226	0.011	77.546	14k	16k	23k	21k		0.99	44

HeeP Singles

16039 HeeP Sing	LH2	10.549	8.035	12.24	6.792	-15.7	54.785	6	3	-1	3.98	41.781	41.781	13.281	153k	243k	243k	1k		0.996	718	HMS 1255 SHMS
16040 HeeP Sing	LH2	10.549	8.035	12.24	6.792	-15.7	16.483	4	0	-1	1.133	11.524	11.524	16.208	959k	1082k	1082k	10k		0.998	4624	HMS 5959 SHMS
16041 HeeP Sing	Dummy10cm	10.549	8.035	12.24	6.792	-15.7	35.557	4	0	-1	0.657	7.471	7.471	18.05	308k	389k	389k	5k		0.998	429	HMS 482 SHMS
16042 HeeP Sing	Dummy10cm	10.549	8.035	13.14	6.792	-17.73	34.973	4	0	-1	0.127	4.301	4.301	16.553	55k	204k	204k	5k		0.998	359	HMS 258 SHMS
16044 HeeP Sing	LH2	10.549	8.035	13.14	6.792	-17.73	54.805	5	0	-1	0.57	19.841	19.841	83.508	843k	1723k	1723k	15k		0.996	18782	HMS 7804 SHMS
16047 HeeP Sing	LH2	10.549	8.035	14.015	6.792	-19.86	61.442	4	0	-1	0.08	14.85	14.85	107.693	126k	2540k	2540k	17k		0.995	6357	HMS 10111 SHMS
16048 HeeP Sing	Dummy10cm	10.549	8.035	14.015	6.792	-19.86	37.564	4	0	-1	0.025	2.501	2.501	27.438	18k	197k	197k	7k		0.997	232	HMS 249 SHMS
16049 HeeP Sing	Dummy10cm	10.549	8.035	14.895	6.792	-19.86	18.904	4	0	-1	0.024	1.48	1.48	27.475	25k	118k	118k	15k		0.997	243	HMS 179 SHMS
16050 HeeP Sing	LH2	10.549	8.035	14.895	6.792	-19.86	16.926	4	0	-1	0.078	8.952	8.952	15.675	25k	227k	227k	10k		0.995	856	HMS 954 SHMS
16051 HeeP Sing	LH2	10.549	8.035	14.895	6.792	-19.86	19.936	4	0	-1	0.084	9.682	9.682	32.321	49k	470k	470k	17k		0.995	1823	HMS 2083 SHMS
16052 HeeP Sing	LH2	10.549	8.035	14.895	6.792	-19.86	53.323	4	0	-1	0.072	8.093	8.093	116.819	139k	1691k	1691k	22k		0.996	6778	HMS 7265 SHMS
16054 HeeP Sing	LH2	10.549	8.035	15.785	6.792	-19.86	48.303	2	0	-1	0.073	5.143	5.143	17.667	26k	594k	594k	4k		0.995	1313	HMS 2282 SHMS
16057 HeeP Sing	Dummy10cm	10.549	8.035	15.785	6.792	-19.86	36.816	0	0	-1	0.025	0.923	0.923	23.961	16k	567k	567k	6k		0.996	213	HMS 807 SHMS
16056 HeeP Sing	LH2	10.549	8.035	15.785	6.792	-19.86	49.191	3	0	-1	0.069	4.852	4.852	137.865	166k	2254k	2254k	28k		0.995	8028	HMS 8987 SHMS
16058 HeeP Sing	Dummy10cm	10.549	7.913	13.58	6.792	-19.86	26.151	0	0	-1	0.025	3.527	3.527	26.876	20k	2408k	2408k	10k		0.998	this is not a coin run	SHMS_elreal and HMS_el_real single mode 2593 elastics
16066 HeeP Sing	LH2	10.549	7.913	13.58	6.792	-19.86	41.471	5	0	-1	0.069	16.941	16.941	139.983	174k	2362k	2362k	34k		0.996	7185	HMS 9190 SHMS