

Hall: C		RADIATION BUDGET FORM																	page: 1 of 2			
Exp. # Run group		rev:		run dates: Fall, 2018		name of liaison: Ole Hansen																
E12-09-011, E12-09-017, E12-09-002																						
beam	setup number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17				
	energy GeV	9.4	9.4	6.4	6.4	4.9	4.9	3.8	3.8	10.6	10.6	8.5	8.5	10.6	10.6	10.6	10.6	10.6				
exp't target	current uA(CW)	70.0	40.0	70.0	40.0	35.0	40.0	35.0	40.0	70.0	40.0	70.0	40.0	50.0	10.0	50.0	25.0	10.0				
	element	H	Al	H	Al	H	Al	H	Al	H	Al	H	Al	H	H	D	D	D				
	thickness mg/cm2	723	525	723	525	723	525	723	525	723	525	723	525	723	723	1670	1670	1670				
	dist. to pivot m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	Z	1	13	1	13	1	13	1	13	1	13	1	13	1	1	1	1	1				
cryo tgt window	A	1	27	1	27	1	27	1	27	1	27	1	27	1	1	2	2	2				
	element	Al		Al		Al		Al		Al		Al		Al	Al	Al	Al	Al				
	thickness mg/cm2	137		137		137		137		137		137		137	137	137	137	137				
	dist. to pivot m	0.0		0.0		0.0		0.0		0.0		0.0		0.0	0.0	0.0	0.0	0.0				
	Z	13	0	13	0	13	0	13	0	13	0	13	0	13	13	13	13	13				
critical window	A	27	0	27	0	27	0	27	0	27	0	27	0	27	27	27	27	27				
	radius cm	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06				
	dist. to pivot m	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58				
	scattering weighting factor	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50				
	time	run time (100% eff.)	108	12	31.2	4.8	74.4	9.6	108	12	240	26.4	240	26.4	57.6	45.6	134.4	91.2	45.6			
installation hours		4.5	0.5	1.3	0.2	3.1	0.4	4.5	0.5	10.0	1.1	10.0	1.1	2.4	1.9	5.6	3.8	1.9				
time days																						
dose rate at the fence post (run time)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
dose per setup		1.55	1.53	1.87	1.60	1.10	1.70	1.30	1.86	1.48	1.50	1.62	1.54	1.05	0.21	3.10	1.55	0.62				
% of annual dose budget	method 1																					
	method 2																					
	conservative	1.55	1.53	1.87	1.60	1.10	1.70	1.30	1.86	1.48	1.50	1.62	1.54	1.05	0.21	3.10	1.55	0.62				
	urem/hr	168	18	58	8	82	16	141	22	354	40	389	41	61	10	417	141	28				
	%	1.7	0.2	0.6	0.1	0.8	0.2	1.4	0.2	3.5	0.4	3.9	0.4	0.6	0.1	4.2	1.4	0.3				

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