



Radionuclide Analysis Facility
Gamma Analysis Report
 Issued by Vernon Cupps

Report Date: August 31, 2011
 Work Request #: 11-179
 Submitted by: B. Brown on 7/22/11
 Workbook: P-HPGe #1-10, page(s) 60-61

MI Collimator C-307

The Accelerator Division/ES&H Group submitted 4 metal tags samples, on Work Request# 11-179, for analysis of accelerator produced radionuclides. Each sample was counted on detector P-HPGe#1.

The following table lists the radionuclides detected in the sample, along with the corresponding specific activity. If a sample activity was reported it has been corrected back to the time of sampling.

SampleID#	Location	Container	Count Info	Mass/Vol.	Count Date	Radionuclide	Activity (pCi/g)
110722BB01	MI Coll C-307[Al#5954]	None	7200sec @ 10cm	3.058 g	7/25/11 @ 8:52	Na-22	45.8 ± 11.8
						Na-24	1,270 ± 210
110722BB02	MI Coll C-307[St-#001]	None	7200sec @ 10cm	13.306 g	7/28/11 @ 11:25	Co-56	22.5 ± 4.3
						Co-60	21.8 ± 4.0
						Cr-51	1,870 ± 290
						Fe-59	1,650 ± 130
						Mn-52	439 ± 40
						Mn-54	639 ± 97
						Sb-122	1,850 ± 260
						Sb-124	1,090 ± 70
						Sc-44m	15.9 ± 18.2
						Sc-46	58.3 ± 7.7
						Sc-47	44.9 ± 11.6
110722BB03	MI Coll C-307[Cu#-1617]	None	7200sec @ 10cm	10.797 g	7/25/11 @ 14:26	Ag-110m	254 ± 14
						Au-198	31.0 ± 8.7
						Co-56	78.7 ± 8.2
						Co-57	138 ± 18
						Co-58	707 ± 107
						Co-60	22.6 ± 3.5
						Cr-51	131 ± 51

<u>SampleID#</u>	<u>Location</u>	<u>Container</u>	<u>Count Info</u>	<u>Mass/Vol.</u>	<u>Count Date</u>	<u>Radionuclide</u>	<u>Activity (pCi/g)</u>
cont. 110722BB03	MI Coll C-307[Cu#-1617]	None	7200sec @ 10cm	10.797 g	7/25/11 @ 14:26	Cu-64	665,000 ± 119,000
						Fe-59	70.0 ± 9.4
						Mn-52	43.9 ± 5.2
						Mn-54	49.3 ± 8.4
						Se-75	16.4 ± 3.4
						V-48	39.1 ± 5.0
110722BB04	MI Coll C-307[Al#5955]	None	7200sec @ 10cm	3.048	7/28/11 @ 13:47	Be-7	127,000 ± 19,000
						Co-56	738 ± 105
						Co-57	420 ± 73
						Co-58	2,110 ± 340
						Cr-51	38,900 ± 6,000
						Mn-52	9,680 ± 790
						Mn-54	16,400 ± 2,500
						Na-22	60,800 ± 9,200
						Na-24	1,760,000 ± 200,000
						Sc-44m	2,660 ± 580
						Sc-46	3,480 ± 390
						Sc-47	3,920 ± 630
						Ti-44/Sc-44*	351 ± 96
						V-48	13,200 ± 1,200