

LBL/LBF

June 15, 1991

SNO-STR-91-045

The attached two pages list gamma-spectrometric analyses of materials related to construction of the detector system for the SNO Collaboration. These analyses were performed since February 1991 at the LBL Low Background Facilities, using any one of the three low-BKG Ge-semiconductor detector gamma-spectrometers presently available for this purpose.

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Aluminum: Reflector Materials

<u>Sample Description/Detector/Run#</u>	<u>Element/Isotope</u>	<u>Value</u>	<u>Std.Dev.</u>
Anodized (Germany) Ge 5765	U ppm U-238	.55	.03
	Ra-226	ND	.002
	Pb-210	ND	.16
	Th ppm Ra-228	ND	.02
	Th-228	.22	.02
	K pct K-40	ND	.0002
Kaiser, Type 5052 (SNO) Ge 5716	U ppm U-238	.26	.01
	Ra-226	ND	.0006
	Pb-210	.79	.10
	Th ppm Ra-228	.018	.008
	Th-228	.18	.008
	K pct K-40	ND	.0002
Kaiser, Type 6061 (SNO) Ge 5713	U ppm U-238	.30	.02
	Ra-226	ND	.0009
	Pb-210	.69	.14
	Th ppm Ra-228	ND	.011
	Th-228	.22	.01
	K pct K-40	ND	.0002
Type 1100 (LBL) Ge 5711	U ppm U-238	.93	.03
	Ra-226	ND	.0009
	Pb-210	.42	.14
	Th ppm Ra-228	ND	.012
	Th-228	.22	.01
	K pct K-40	ND	.0002
Kaiser, Type 6061 (LBL) Ge 5726	U ppm U-238	.46	.02
	Ra-226	ND	.0008
	Pb-210	.71	.13
	Th ppm Ra-228	ND	.009
	Th-228	.22	.01
	K pct K-40	ND	.0002

Sealants: Silicones

<u>Sample Description/Detector/Run#</u>	<u>Element/Isotope</u>	<u>Value</u>	<u>Std.Dev.</u>
RTV-11, Resin only	U ppm U-238	.85	.13
	Ra-226	.42	.01
	Pb-210	ND	.40
Ge 5711	Th ppm Ra-228	ND	.04
	Th-228	.05	.03
	K pct K-40	.004	.001
SYLGARD, cast piece	U ppm U-238	ND	.01
	Ra-226	.045	.008
	Pb-210	ND	.3
Ge 5704	Th ppm Ra-228	ND	.09
	Th-228	.21	.07
	K pct K-40	ND	.002
	U ppm U-238		
	Ra-226		
	Pb-210		
	Th ppm Ra-228		
	Th-228		
	K pct K-40		
	U ppm U-238		
	Ra-226		
	Pb-210		
	Th ppm Ra-228		
	Th-228		
	K pct K-40		
	U ppm U-238		
	Ra-226		
	Pb-210		
	Th ppm Ra-228		
	Th-228		
	K pct K-40		