



K&S Associates, Inc.

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CALIBRATION REPORT

Submitted by: Ludlum Measurements, Inc.
501 Oak St.
Sweetwater TX 79556

Instrument: Ludlum 9-4 #259053

Test#: M090330

Report Date: 4/2/2009

Test Date(s): 2/17/09- 3/31/09

The Calibration Factors in contained in this report were obtained by comparison with instruments calibrated by, or directly traceable to, the National Institute of Standards and Technology (NIST). K&S Associates, Inc. is licensed by the State of Tennessee to perform calibrations.

The Calibration Factors stated herein are valid under the conditions specified and at the time of testing. K&S makes no statement regarding long-term stability of the instruments.

Although K&S Associates holds accreditation for many activities, accredited status is NOT claimed for the testing in this report.

The estimated expanded uncertainty at a coverage level of $k=2$ (95% confidence) of the calibration coefficients is 6%.

#259053 bottom of instrument toward source, distance to outer indentions in case
WINDOW CLOSED

beam	keV eff.	exp. Rate mR/hr	rdg mR/hr	CF
Cs-137	662	1.0	1.2	0.83
Cs-137	662	2.5	2.8	0.89
Cs-137	662	4.0	4.5	0.89
Cs-137	662	10	10	1.00
Cs-137	662	40	42	0.95
Cs-137	662	100	100	1.00
Cs-137	662	400	420	0.95
Co-60	1225	4283	4200	1.02
NS250	220	326	385	0.85
NS150	119	1615	1980	0.82
NS100	84	295	385	0.77
M60	47	61459	38500	1.60
M50	24	64119	38500	1.67
M40	23	54059	33800	1.60
M30	16	6959	3130	2.22

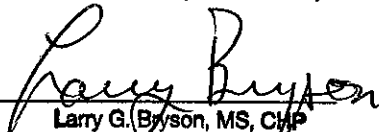
#259053 bottom of instrument toward source, distance to outer indentions in case
WINDOW OPEN

beam	keV eff.	exp. Rate mR/hr	rdg mR/hr	CF
Cs-137	662	400	400	1.00
Co-60	1225	4283	3400	1.26
NS250	220	328	420	0.78
NS150	119	1619	2150	0.75
NS100	84	297	430	0.69
M60	47	3038	3350	0.91
M50	24	3285	3400	0.97
M40	23	2620	2500	1.05
M30	16	46045	38300	1.20

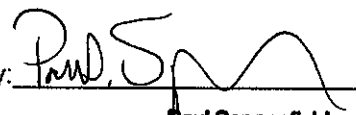
Logs/pages: M-30 p.244, N-16 p.17, Pa-5 p.230,231, C-57 p.286

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