SOUTHWEST RESEARCH INSTITUTE®
6220 Culebra Road, P.O. Drawer 28510
Institute Quality Systems
Institute Calibration Laboratory
Phone: 210-522-5215 Fax 210-522-4834

Certificate of Calibration

ACCREDITED
Calibration Laboratory
Certificate #0972-01

Cost Center: DIV20
Mail Stop: B51
Customer: DON BANNON
Manufacturer/Model: SARTORIUS / 3808-MP8
Description: BALANCE
Serial Number: 39030006
Asset Number: 001444
Procedure: BALANCES & SCALES - 1 DEC 06

Work Order: 303087714
Date Issued: 12-May-2009
Date Calibrated: 12-May-2009
*** Date Due :** 12-Nov-2009
**** Results:** FOUND-LEFT
Temperature: 79°F
Humidity: 42 %

This certificate documents traceability to the National Institute of Standards and Technology (NIST) and the International System of Units (SI). The Laboratory quality system conforms to ISO/IEC 17025, 2005, ANSI/NCSL Z540-1-1994 and relevant requirements of the ISO 9000-2000 standard. This certificate shall not be reproduced, except in full, without the written approval of the Southwest Research Institute Calibration Laboratory. This certificate shall not be used to claim product endorsement by Southwest Research Institute, American Association for Laboratory Accreditation (A2LA) or any agency of the U. S. Government. Results of this calibration relate only to the instrument described above at the time of calibration and does not imply any long term stability of the instrument.

*Determined by the customer, does not imply the instrument will remain within tolerance as any number of factors may cause an out-of-tolerance condition before this date. **Data type found in this certificate or attached measurement report must be interpreted as: Found-left - adjustment and/or repair was not performed, As-found - data is before unit is adjusted and/or repaired, As-left - data is after adjusted and/or repaired was performed. The customer has sole responsibility for determination of in-/out-of-tolerance or compliance/noncompliance.

Measurement uncertainty calculated in accordance with the method described in the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM), for a confidence level of approximately 95 percent using a coverage factor of $k=2$.

Remarks:

Standards Used

Asset #	Manufacturer	Model	Description	Cal Date	Due Date
001716	RICE LAKE	1KG	WEIGHT, CLASS 1	11-Jun-2008	11-Jun-2009
001717	RICE LAKE	2KG	WEIGHT, CLASS 1	11-Jun-2008	11-Jun-2009
001718	RICE LAKE	2KG	WEIGHT, CLASS 1	11-Jun-2008	11-Jun-2009
001719	RICE LAKE	5KG	WEIGHT, CLASS 1	11-Jun-2008	11-Jun-2009
002060	RICE LAKE	5KG	WEIGHT, CLASS 1	11-Jun-2008	11-Jun-2009
002061	RICE LAKE	5KG	WEIGHT, CLASS 1	11-Jun-2008	11-Jun-2009
002062	RICE LAKE	10KG	WEIGHT, CLASS 1	11-Jun-2008	11-Jun-2009

Walt Hill
Laboratory Manager

Carlos Mendoza
Metrology Technician

Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order:	303087714	Mfr:	Sartorius	Technician:	com
Asset No:	001444	Model:	3808-MP8		
Serial No:	39030006	Type:	Balance	Cal Date:	12-May-09
Remarks:					
Ambient Conditions	79 °F		42 % RH	14.24	PSIA

Function/Range	Applied	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Corner Load	grams	grams	grams	grams	grams	Result
Reference	10000.0					
Front	0.0	0.2	0.2	0.8		Pass
Rear	0.0	0.1	0.1	0.8		Pass
Left	0.0	-0.2	-0.2	0.8		Pass
Right	0.0	-0.2	-0.2	0.8		Pass
Repeatability						
1	10000.0	9999.9				
2	10000.0	10000.0				
3	10000.0	9999.9				
4	10000.0	10000.0				
5	10000.0	10000.1				
6	10000.0	10000.1				
7	10000.0	10000.0				
8	10000.0	9999.9				
9	10000.0	9999.8				
10	10000.0	9999.9				
Std Deviation		0.10		0.20		Pass
Linearity	0.0	0.0	0.0	0.4	0.14	Pass
	3000.0	3000.3	0.3	0.4	0.14	Pass
	6000.0	6000.1	0.1	0.4	0.14	Pass
	9000.0	8999.9	-0.1	0.4	0.14	Pass
	12000.0	12000.1	0.1	0.4	0.14	Pass
	15000.0	14999.8	-0.2	0.4	0.14	Pass
	18000.0	17999.8	-0.2	0.4	0.14	Pass
	21000.0	20999.7	-0.3	0.4	0.14	Pass
	24000.0	23999.8	-0.2	0.4	0.14	Pass
	27000.0	26999.7	-0.3	0.4	0.14	Pass
	30000.0	29999.7	-0.3	0.4	0.14	Pass

End of Report