



# 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 #

0972-01

## Certificate of Calibration

Submitted By: DIV20

Address: B57

Contact: DON BANNON

Manufacturer Model: FISHER SCIENTIFIC 15-166A

Description: THERMOMETER

Serial No: C96-637

Asset No: 004991

Procedure: TEMPERATURE, JAN/04

Work Order: 303070648

Date Issued: Sep 1, 2006

Calibration Date: Aug 19, 2006

\*Calibration Due: Feb 19, 2007

Calibration Location: Bldg. 64

Environment: Temp. 74.0°F Hum. 45 %RH

\*\*Data Type: FOUND-LEFT

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, 1999, 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. \*\*Found/Left = adjustment and/or repair was not required, As Left = adjusted and/or repaired was required. The client has sole responsibility for determination of in-/out-of-tolerance or compliance/noncompliance. See Remarks or attached Measurement Report with the same Work Order number for data.

Reported uncertainty calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM) and represents an expanded uncertainty with a coverage factor of k=2 to approximate a 95% confidence level.

Remarks: None

### Standards Used

Asset No.	Serial No.	Manufacturer	Model	Description	Cal Due
009137	A21208	HART SCIENTIFIC	1575	THERMOMETER	Dec 22, 06
010281	0421	HART SCIENTIFIC	5628	SPRT	Jun 24, 08

Measurements by: Paul Depmore  
Metrology Technician

Reviewed by: blt ( ) jrg ( ) pwc ( ) wgh ( )  
Metrology Technician

Southwest Research Institute  
Calibration Laboratory  
Measurement Report

Work Order:	303070648	Mfr:	Fisher-Scientific	Technician:	PRD
Asset No:	004991	Model:	15-166A (ASTM 1C)		
Serial No:	C96-637	Type:	THERMOMETER	Cal Date:	19-Aug-06
Remarks:	Accuracy Reference ANSI Z236.1-1983				

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Temperature	°C	°C	°C	°C	°C	Result
	-19.87	-19.9	0.0	0.5	0.29	Pass
	0.09	0.3	0.2	0.5	0.29	Pass
	49.99	50.1	0.1	0.5	0.29	Pass
	99.97	100.0	0.0	0.5	0.29	Pass
	148.98	149.0	0.0	0.5	0.29	Pass

END OF REPORT