



SOUTHWEST RESEARCH INSTITUTE®

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Institute Quality Systems
Institute Calibration Laboratory
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Calibration Laboratory
Certificate #0972-01

Certificate of Calibration

Submitted By: DIV20

Address: B57

Contact: DON BANNON

Manufacturer / Model: FLUKE / Type K

Description: THERMOCOUPLE

Serial No: 10638

Asset No: 010638

Procedure: TEMPERATURE PROBES - 5 JUN 06

Work Order: 303078038

Date Issued: Dec 19, 2007

Calibration Date: Dec 19, 2007

***Calibration Due:** Dec 19, 2008

Calibration Location: Bldg. 64

Environment: Temp. 73.0°F Hum. 45 %RH

****Data Type:** FOUND-LEFT

DivID/Location: N/A

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. **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: Ambient Only

Standards Used

Asset No.	Serial No.	Manufacturer	Model	Description	Cal Due
009917	604420	HART SCIENTIFIC	5612	RTD	Mar 18, 08
010329	7949003	FLUKE	525A	TEMPERATURE/PRESSURE CALIBRATOR	Oct 24, 08
012305	A51826	HART SCIENTIFIC	1502A	TEMPERATURE READOUT	Mar 18, 08

Reviewed by: () wgh () Mark () Jrg () blt () pwc
Metrology Technician

Measurements by: Mark Romer
Metrology Technician

Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order:	303078038	Mfr.	Fluke	Technician	Mark Romero
Asset No.	010638	Model	Type K	Cal Date.	19-Dec-07
Serial No.	10638	Type.	Thermocouple		
Remarks: Accuracy based on ASTM E230-02 (K TC= ±3.96°F) Ambient Only					

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Temperature	° F 72.012	° F 72.04	° F 0.03	° F 3.96	° F 0.11	Pass
END OF REPORT						