

SOUTHWEST**RESEARCH****INSTITUTE**

6220 CULEBRA ROAD • POST OFFICE DRAWER 28510 • SAN ANTONIO, TEXAS, 78228-0510 • TEL (210) 522-5215 • FAX (210) 522-369

To: Don Bannon, Div 20, Ext 5118

From: Walt Hill, Metrology Group Leader
Institute Calibration Laboratory

Date: Mar. 03, 2006

Subject: Out-of-tolerance Notice

The purpose of this notice is to alert you of a condition, which may have caused erroneous measurements affecting safety or the quality of products or services your organization provides. The attached as-found readings are provided for your evaluation to determine if the instrument listed below had an impact and if further action is required.

When the as-found results are near the specification limit, +/- a margin less than the measurement uncertainty, it is not possible to state in-tolerance or out-of-tolerance with a 95% level of confidence. It is the Institute Calibration Laboratory policy that the client is made aware of this situation because the end-user is taking some of the risk that the instrument listed below may not meet the end-user measurement requirements.

Your review/evaluation should be conducted in accordance with your organizational quality policy and procedural requirements. If we can be of further assistance, please contact the Calibration Laboratory at 522-5215.

Manufacturer: Ertco

Model: ASTM 1C

Description: Thermometer

Serial Number: F98-393

Asset Number: 7304

User ID Number:

Last Calibration: Sep 09, 2005

Date Received for Service: Mar. 01, 2006 **Work Order Number:** 303068133

Service Requested: Scheduled calibration

Remarks: Not readable below 0.0 °C

OUT OF TOLERANCE

120

Q200604260004
Instrument calibration record for ERTCO
Thermometer, Model # ASTM 1C, Serial #
F98-393 (03/30/2006)

Bob Trollinger

From: Don Bannon [dbannon@cnwra.swri.edu]
Sent: Friday, March 03, 2006 1:43 PM
To: 'Bob Trollinger'
Subject: RE:

Bob--

Please categorize as Limited Calibration.
 We will continue to use it in the readable range.

Thank you,
 --Don

Don Bannon - Staff Technician
 Geology & Geophysics, CNWRA
 Southwest Research Institute
 6220 Culebra Road
 San Antonio, TX 78238
 210-522-5118
dbannon@swri.org

-----Original Message-----

From: Bob Trollinger [mailto:robert.trollinger@swri.org]
Sent: Friday, March 03, 2006 1:36 PM
To: don.bannon@swri.org
Subject:

Reply with instructions.
 Thanks

S O U T H W E S T R E S E A R C H I N S T I T U T E ®

To: Don Bannon, Div 20, Ext 5118
From: Institute Calibration Laboratory; Bob Trollinger
Date: March 3, 2006
Subject: Review of Work Request Number 303068133

The work you requested is held pending your review. Please review the information provided and respond with your approval or further instructions for work to proceed. Return a signed copy via mail to Cal Lab Bldg 64, FAX (522-4834) or reply to this email. If you have questions or require additional information please call 522-5215.

3/3/2006

Unit Received: mar 01, 2006

Work Requested: Cal

Manufacturer: Ertco

Model: ASTM 1C

Description: Thermometer

Serial Number: F98-393

Asset Number: 7304

User ID:

Cause of Review: Not readable below 0.0°C. Unit can be used with a limitation or removed from service.
How do you wish to proceed?

If no reply has been received by Mar 15, 2006 the unit will be returned without action.

Approved () Disapproved return unit as is ()

Date: _____


Instructions ()

Authorized by _____

Print or Type Name

Signature

Thank you for your timely response, t


Walt Hill, Metrology Group Leader
Institute calibration Laboratory

3/3/2006



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: ERTCO ASTM 1C

Description: THERMOMETER

Serial No: F98-393

Asset No: 007304

Procedure: TEMPERATURE, JAN/04

Work Order: 303068133

Date Issued: Mar 2, 2006

Calibration Date: Mar 2, 2006

***Calibration Due:** Sep 1, 2006

Calibration Location: Bldg. 64

Environment: Temp. 73.0°F Hum. 40 %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: Not Calibrated below 0.0°C

Standards Used

Asset No.	Serial No.	Manufacturer	Model	Description	Cal Due
009137	A21208	HART SCIENTIFIC	1575	THERMOMETER	Jun 19, 06
010281	0421	HART SCIENTIFIC	5628	SPRT	Jun 24, 08

Reviewed by: blt () jrg () pwc (x) wgh ()

Metrology Technician

m:\a2la1.rpt Rev date August 15, 2005

Measurements by: Bob Trollinger

Metrology Technician

Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order:	303068133	Mfr:	ETRCO	Technician:	blt
Asset No:	007304	Model:	ASTM 1C		
Serial No:	F98-393	Type:	THERMOMETER	Cal Date:	02-Mar-06
Remarks:	Accuracy Reference ANSI Z236.1-1983				
	Not Calibrated below 0.0 °C				

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Temperature	°C	°C	°C	°C	°C	Result
	-19.89	Unreadable	#VALUE!	0.5	0.29	#####
	0.04	0.5	0.5	0.5	0.29	Pass
	49.97	50.0	0.0	0.5	0.29	Pass
	99.89	100.0	0.1	0.5	0.29	Pass
	149.89	150.0	0.1	0.5	0.29	Pass
	END OF REPORT					