



# 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: ORION 720A  
Description: PH/ION METER  
Serial No: 005885  
Asset No: 001869  
Procedure: ORION 720A - 22 SEP, 2006

Work Order: 303071047  
Date Issued: Sep 28, 2006  
Calibration Date: Sep 28, 2006  
\*Calibration Due: Sep 28, 2007  
Calibration Location: Bldg. 64  
Environment: Temp. 74.0°F Hum. 43 %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: mVOLT Cal'd Only

### Standards Used

Asset No.	Serial No.	Manufacturer	Model	Description	Cal Due
006413	7085202	FLUKE	5520A/SC1100	MULTI-PRODUCT CALIBRATOR	Mar 16, 07

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

Metrology Technician

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

Measurements by: Paul Depmore

Metrology Technician

Southwest Research Institute  
Calibration Laboratory  
Measurement Report

Work Order:	303071047	Mfr.	Orion	Technician	PRD
Asset No.	001869	Model	720A		
Serial No.	005885	Type.	pH Meter	Cal Date.	28-Sep-06
Remarks:					
LIMITED CAL: Millivolts Only					

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
mVolts	mVolts	mVolts	mVolts	mVolts	mVolts	Result
Input 1	0.0	0.1	0.1	0.5	0.12	Pass
	1000.0	999.8	-0.2	1.0	0.12	Pass
	-1000.0	-999.5	0.5	1.0	0.12	Pass
mVolts	mVolts	mVolts	mVolts	mVolts	mVolts	
Input 2	0.0	-0.1	-0.1	0.5	0.12	Pass
	1000.0	999.5	-0.5	1.0	0.12	Pass
	-1000.0	-999.8	0.2	1.0	0.12	Pass

END OF REPORT