

3/58



CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

QUALITY ASSURANCE

SURVEILLANCE REPORT

PROJECT NO: 20- 1402-861

REPORT NO: 98-26

PAGE 1 OF 1

SURVEILLANCE SCOPE: Surveillance activities on Unsaturated and Saturated Flow Under Isothermal Conditions

REFERENCE DOCUMENTS: Quality Assurance Application Matrix; CNWRA HLW Operations Plans, Rev 10 Chg 2; QAP-004 Surveillance Control Procedure

STARTING DATE: November 3, 1998

ENDING DATE: November 5, 1998

QA REPRESENTATIVE: Mark R. Ehnstrom 

PERSONS CONDUCTING TEST/EXAM/ACTIVITY: James Winterle and Melissa Hill


SATISFACTORY FINDING:

Discussions were held with J. Winterle to discuss activities associated with Unsaturated and Saturated Flow Under Isothermal Conditions. Scientific notebooks (nos. 195, 197, 217) were reviewed and showed that current activities are being documented in them. Located in notebook no. 217 was a list of samples taken from the Yucca Mountain site and the identification numbers. Samples SC 5-98-1 through SC 5-98-7 are located at SwRI in Bldg. 57 and were easily retrievable and identifiable. One piece of test equipment a Pycnometer, SwRI Serial No. 029807, was used to determine the mass of samples. The instrument was identified with a "Calibrate Before Use" sticker. During review of the documentation for the calibration of this instrument it was noted that one of the "specification sheets" for the spherical calibration standards seemed to be incorrect. Closer review determined that Quantachrome Corporation, the supplier of the calibration spheres, had supplied an incorrect specification sheet. M. Hill contacted the company and was supplied the correct specifications document. Discussions with J. Winterle produced a list of consultants used for project activities. Professional Personnel Qualification files for D. Groenveld, D. Or, S. Sandburg, S. Stothoff, and D. Woolhiser were reviewed for compliance to procedure QAP-007 with no comment. Milestone Report 20-1402-861-810 titled, Matrix Diffusion Summary Report, was reviewed for compliance to QAP-002, Review of CNWRA Documents, Reports, Papers, and Presentation Materials. One minor comment was generated relating to verification of calculations. This comment was discussed between E. Percy and B. Mabrito and was satisfactorily resolved.

UNSATISFACTORY FINDINGS: The specification sheet documentation supplied by Quantachrome Corporation is not a certification type document normally supplied with test equipment. Additional review should be performed to determine the importance of "certifying" the spheres with respect to their diameter with certified measuring test equipment.

NONCONFORMANCE REPORT NO: NCR #98-12**ATTACHMENTS:** Specification sheet sent by Quantachrome Corporation for the large calibration sphere.**RECOMMENDATIONS/ACTIONS:** Discuss with Institute Calibration Laboratory personnel the potential to accurately measure the diameters of the calibration spheres.

APPROVED:


 CENTER DIRECTOR OF QUALITY ASSURANCE

DATE:

11/18/98

DISTRIBUTION:

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NONCONFORMANCE REPORT

Project No. 20-1402-861NCR No. 98-12**PART 1: DESCRIPTION OF NONCONFORMANCE**

Contrary to CQAM Section 12, Paragraph 12.4.1 (Equipment Subject To Periodic Recalibration), metallic spheres used for calibrating the CNWRA Pycnometer were not being maintained as required.

Initiated by: Mark R. Ehnstrom 

Date: 16 November 1998

PART 2: PROPOSED DISPOSITION AND CORRECTIVE ACTION

Disposition:

Basis of Disposition:

Action to correct nonconformance:

Target date for completion: _____

Proposed by:

Date:

PART 3: APPROVAL

Element Manager: _____

Date: _____

Director of QA: _____

Date: _____

Comments/Instructions:

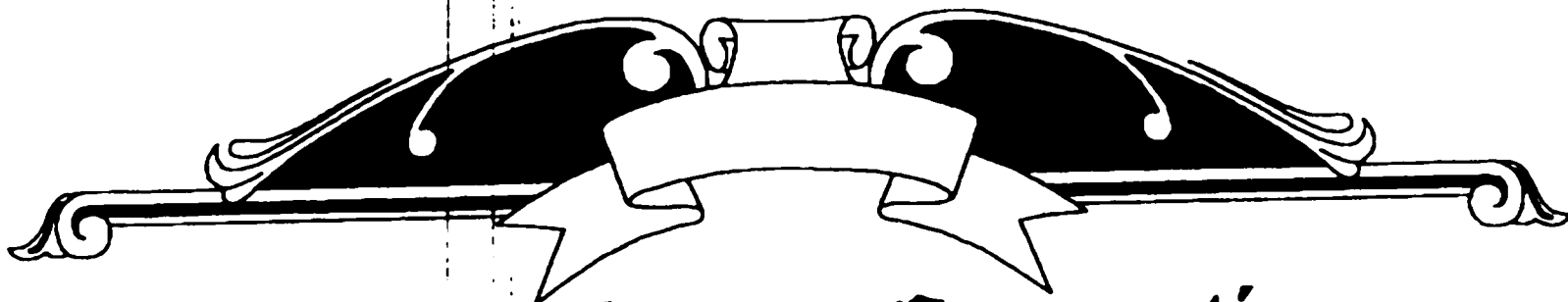
PART 4: CLOSE OUT

Comments:

Distribution:

Verified by:

Date:



Quantachrome Corporation
SPECIFICATION SHEET

Calibration Sphere - Large

Part Number 75212

Material: Type 440-C Stainless Steel
Nominal Diameter 4.7625 cm
Diameter Tolerance 0.000254 cm

Volume 56.5592 ± 0.0028 cubic centimeters

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