600156

BD-7400-172-1 (07/91)

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

RELEASE AUTHORIZATION

Document Number: WHC-SD-WM-ATR-130, Rev. 0

Document Title: VISCOMETER SOFTWARE, VERSION 1.1, ACCEPTANCE TEST REPORT

Release Date: 5/8/95

**This document was reviewed following the
procedures described in WHC-CM-3-4 and is:**

APPROVED FOR PUBLIC RELEASE

WHC Information Release Administration Specialist:

Chris Willingham

C. Willingham

5/8/95

TRADEMARK DISCLAIMER. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors.

This report has been reproduced from the best available copy. Available in paper copy and microfiche. Printed in the United States of America. Available to the U.S. Department of Energy and its contractors from:

U.S. Department of Energy
Office of Scientific and Technical Information (OSTI)
P.O. Box 62
Oak Ridge, TN 37831
Telephone: (615) 576-8401

Available to the public from:

U.S. Department of Commerce
National Technical Information Service (NTIS)
5285 Port Royal Road
Springfield, VA 22161
Telephone: (703) 487-4650

MASTER

SUPPORTING DOCUMENT		1. Total Pages 6
2. Title Viscometer Software, Version 1.1, Acceptance Test Report	3. Number WHC-SD-WM-ATR-130	4. Rev No. 0
5. Key Words Viscometer 101-SY Viscosity Instrumentation	6. Author Name: M. Gimera Signature <i>Michael Gimera</i> Organization/Charge Code 71140 / N2B12	
7. Abstract Provides the report for the viscometer acceptance test, software Version 1.1. The viscometer is an instrument that will collect ball rheometry data for Tank 101-SY.		
8. RELEASE STAMP <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> OFFICIAL RELEASE BY WHC DATE MAY 09 1995 35 Station 21 </div>		

VISCOMETER SOFTWARE VERSION 1.1 ACCEPTANCE TEST REPORT

IMPACT LEVEL Q

Issued by

Characterization Monitoring Systems

April 1995

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

Westinghouse Hartford Company

TABLE OF CONTENTS

SECTION	PAGE
1. INTRODUCTION	3
1.1. Purpose	3
1.2. Scope	3
1.3. Definitions And Abbreviations	3
2. DESCRIPTION OF TEST	3
3. TEST RESULTS	4
4. CONCLUSIONS	4
5. TEST DATA SHEETS.....	4

VISCOMETER SOFTWARE VERSION 1.1 ACCEPTANCE TEST REPORT

1. INTRODUCTION

1.1. PURPOSE

This document presents the results of the acceptance test for the software that was developed to operate the viscometer. Together with the ATP, this document satisfies the requirements in EP 4.1, "Design Verification Requirements." The selected method of design verification is qualification testing.

1.2. SCOPE

The testing described in this document covers modifications to the software that controls and acquires data for the viscometer. The testing is limited to the modifications that result in version 1.1 of the software. Other aspects of the software were covered in a previous ATP. This approach is valid because the software is modular and the affect of changes have a limited scope.

1.3. DEFINITIONS AND ABBREVIATIONS

ATP Acceptance Test Procedure

ATR Acceptance Test Report

EP Standard Engineering Practice (WHC-CM-6-1)

2. DESCRIPTION OF TEST

The modifications that result in version 1.1 of the software are minor. The software modifications only affect the dynamic density mode.

The dynamic density mode oscillates the ball five times over a total distance of four centimeters. During ball motion position, velocity and load data are recorded to file. Version 1.1 of the software modifies this mode to record data at a rate of 15 times per second instead of 60 times per second. The second aspect of the change is that data recording no longer stops when ball motion stops, but continues for one minute after the ball comes to rest.

The test was performed April 5, 1995 at Tank SY-101 during field testing. The test performer was M. Gimera. The test was witnessed by other members of the field testing team (Jason Gunter, Chester Shepard and Ruben Mendoza). A representative from Quality Assurance was not present.

3. TEST RESULTS

The results of the testing are presented below. Actual test data sheets are included in Section 5.

The ball is controlled the same as before the modification. Five oscillations occur in just under one minute. The sampling rate of 15 samples per second was achieved, and continues for one minute (900 lines of data at 15 lines per second) after the ball stops motion.

4. CONCLUSIONS

This acceptance test is considered successful. The software modification performed as intended.

5. TEST DATA SHEETS

The test data sheets are included on the following pages.

SOFTWARE ACCEPTANCE TEST DATA SHEETS
FOR
VISCOMETER

Test Performer: Michael Gimera
Date of Test April 5, 1995

Step	Description	Data	Expected
2	Number of oscillations	<u>5</u>	5
2	Maximum position	<u>829.125</u>	
2	Minimum position	<u>824.870</u>	4 less than max
2	Number of lines in file	<u>1687</u>	
2	Number of lines after ball stops	<u>900</u>	900

filename: 04-05-95.D01

Michael Gimera
Test Performer

N/A
QA Witness