

**YUCCA MOUNTAIN PROJECT OFFICE  
DOCUMENT APPROVAL SHEET**

Y-AD-002  
1/22/91

Title: BRANCH TECHNICAL PROCEDURE: EXAMINATION OF SAMPLES BY PARTICIPANTS AT THE SAMPLE MANAGEMENT FACILITY

NO. BTP-SMF-005  
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 Non Q

APPROVAL

PROJECT MANAGER: John E. Shaler (T&MSS APM) 6/28/89  
Signature Date

DIRECTOR OF QUALITY ASSURANCE: Edwin L. Wilmot 6/28/89  
Signature Date

YMP Branch Chief : D. E. Livingston for M. B. Blanchard 6/28/89  
(OTHER, AS REQUIRED) Signature Date

REVISION 0 EFFECTIVE DATE: 7/7/89

REVISIONS

	INITIAL AND DATE			
	REVISION 1	REVISION 2	REVISION 3	REVISION 4
PROJECT MANAGER: <u>E. Wilmot for C.P.G.</u> 10/26/90		<u>[Signature]</u> 5/31/91		
DIRECTOR, QA: <u>D. G. Horton</u> 10/26/90		<u>[Signature]</u> 5/30/91		
YMP SIB Chief : <u>U. S. Clanton</u> 10/26/90 (OTHER, AS REQUIRED) <u>M. B. Blanchard</u> 10/26/90		<u>[Signature]</u> 5/31/91		
EFFECTIVE DATE: <u>10/26/90</u>		<u>6/18/91</u>		

This document is a complete revision.



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TRAINING REQUIRED  YES  N/A

NUMBER OF DAYS REQUIRED FOR TRAINING 10

COMMENTS: SELF-STUDY  
FOR PERSONNEL  
BASELINED FOR THIS  
PROCEDURE

[Signature] 6/4/91  
TRAINING OFFICER/TRAINING MANAGER DATE

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## 1.0 PURPOSE AND SCOPE

### 1.1 PURPOSE

The purpose of this procedure is to facilitate the tracking and use of geologic samples collected from Yucca Mountain Site Characterization Project (YMP) boreholes and curated at the Sample Management Facility (SMF). Its goals are to maintain the traceability and identity of all samples examined at the SMF by YMP Participants and other individuals and organizations.

### 1.2 SCOPE

The scope of this procedure includes (1) instructions for coordinating requests for examinations of samples by YMP Participants, (2) responsibilities of SMF Staff during sample examination activities, and (3) the documentation related to the examination and the disposition of those documents.

## 2.0 APPLICABILITY

This procedure applies to all SMF personnel involved with the preparation, documentation, or examination of borehole samples collected under YMP procedures and curated at the SMF. It also applies to any borehole samples collected under YMP procedures and curated at the SMF.

## 3.0 DEFINITIONS

NOTE: Terms in this procedure are used as defined in the Project Glossary. The following additional definitions are adopted for the purposes of this procedure.

### 3.1 CORE

Core consists of a cylindrical section of rock, or fragment thereof, taken as a sample of the interval penetrated by a core bit and brought to the surface for examination and/or analysis.

### 3.2 CUTTINGS

Cuttings are chips of rock produced during drilling that are removed from the borehole by circulation of drilling fluids (gas, foam, or liquid).

### 3.3 SAMPLE

A sample is part of a population whose properties are studied to gain information about the whole or the group.

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## 3.4 SAMPLE MANAGEMENT FACILITY

The SMF is the facility used for the documentation, storage, and control of samples and sample remnants collected and dispersed for analysis and evaluation by users. The SMF consists of a physical facility and equipment designed to effectively process and preserve collected samples.

## 3.5 UNQUALIFIED SAMPLE

An unqualified sample is a sample not collected under the provisions of a YMP approved Quality Assurance Plan, and applicable approved implementing procedures. These samples are considered unqualified until they have been qualified under approved procedures.

## 3.6 REQUESTOR

The Requestor is an individual from a YMP Participant or outside interest who requests to visually examine a YMP sample.

## 3.7 EXAMINER

An Examiner is an individual from a YMP Participant or outside interest who is authorized to visually examine samples at the SMF.

## 4.0 RESPONSIBLE PARTIES

The following YMP individuals are responsible for activities identified in Section 5.0 of this procedure:

1. SMF Curator
2. SMF Staff
3. Technical Staff Assistant
4. SMF Geotechnician
5. Administrative Assistant

## 5.0 PROCEDURE

NOTE: A flowchart of the following processes described in this procedure is attached as Figure 1.

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<u>RESPONSIBLE PARTY</u>	<u>STEPS</u>	<u>PROCEDURE</u>
SMF Curator	1.	Receive a completed Sample Examination Request from a requestor in accordance with AP-6.3Q.
SMF Curator	2.	Schedule the sample examination according to the needs of the requestor and the projected availability of SMF facilities and staff. Submit approved Sample Examination Request to the Technical Staff Assistant.
Technical Staff Assistant	3.	Verify that the Sample Examination Request is completely and correctly filled out. Sign and date it in the spaces provided. Submit the completed record to the Administrative Assistant.
Technical Staff Assistant	4.	Prior to the arrival of the examiner at the SMF, direct the SMF staff to retrieve and lay out requested sample containers in an examination room.
SMF Staff	5.	Prepare a Sample Examination Record containing, as a minimum, the following information: <ol style="list-style-type: none"> <li>a. The name, organization, phone, and address of the requestor</li> <li>b. The scheduled date of the examination</li> <li>c. A list of each sample container to be examined, including the borehole, depth interval, and container unique identifier</li> <li>d. For each sample container, spaces for the notation of the date of transfer to the examination room, the weight of the container prior to the examination, the date returned to the shelf, and the weight of the container after the examination</li> </ol>

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<u>RESPONSIBLE PARTY</u>	<u>STEPS</u>	<u>PROCEDURE</u>
SMF Staff	e.	Signature and date spaces for the SMF staff and the Technical Staff Assistant
	6.	Remove designated sample containers from storage and transport them to the examination room. If directed by the curator, weigh selected containers. Unless directed otherwise by the curator, lay container sequentially on examination tables.
	7.	Record the date of the container transfer and, if applicable, the weight of the container in the spaces provided on the Sample Examination Record.
Administrative Assistant	8.	Using the Sample Examination Request, determine if the samples to be examined consist of unqualified core. <ul style="list-style-type: none"> <li>a. If yes, go to Step 9.</li> <li>b. If no, go to Step 11.</li> </ul>
	9.	Determine whether an Unqualified Sample Examination Agreement, completed in accordance with AP-6.3Q, is on file for the examiner. <ul style="list-style-type: none"> <li>a. If yes, go to Step 11.</li> <li>b. If no, go to Step 10.</li> </ul>
	10.	Have the examiner sign an Unqualified Sample Examination Agreement, and retain a copy in the examiner's file.
SMF Curator	11.	Supply the examiner with the access code for the exam room cipherlock.
SMF Staff	12.	Upon the completion of the sample examination, inspect sample containers to ensure that samples are undisturbed. Weigh any containers that were weighed

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<u>RESPONSIBLE PARTY</u>	<u>STEPS</u>	<u>PROCEDURE</u>
SMF Staff		prior to the examination. Return sample containers to their assigned shelf locations.
	13.	Record the date of the container return and, if applicable, the weight of the container in the spaces provided on the Sample Examination Record.
	14.	Determine that the information on the Sample Examination Record is complete and accurate. Sign and date on the spaces provided. Submit completed Sample Examination Record to the Technical Staff Assistant.
Technical Staff Assistant	15.	Verify that the Sample Examination Record is completely and correctly filled out. Sign and date it in the spaces provided. Submit the completed record to the Administrative Assistant.
Administrative Assistant	16.	Receive completed Sample Examination Request, Unqualified Samples Examination Agreement, if applicable, and Sample Examination Record. Photocopy, compile, and submit the records in accordance with QMP-17-01.

## IDENTIFICATION AND RESOLUTION OF DISCREPANCIES

SMF Staff	17.	Identify and resolve any discrepancy upon discovery by crossing through the error, correcting it in the original document, and initialing and dating the correction.  If the correction is not self-explanatory, then:  a. Assign a number to the correction.  b. Attach a sheet to the original record that fully describes the problem and the correction performed.
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<u>RESPONSIBLE PARTY</u>	<u>STEPS</u>	<u>PROCEDURE</u>
SMF Staff		c. If the discrepancy is discovered after an activity or form has been completed, then handle according to the procedure outlined in Section 5.7 of BTP-SMF-001, Sample Management for the YMPO.

NOTE: Discrepancies covered by this procedure are only those that result from the actions of staff members using the procedure. A discrepancy exists when there is incorrect information that significantly affects documentation of notation and that is beyond the scope of the immediate activity of the form being completed.

18. If there are any nonconformances to this procedure noted during or after associated activities, proceed according to QMP-15-01, Control of Nonconformances.

NOTE: A nonconformance exists when there is a deficiency in characteristics, documentation, or procedures that renders the quality of an activity or an item unacceptable or indeterminant. The intent of nonconformance reporting is to ensure the resolution of the conditions not meeting the requirements or to ensure that undefined conditions are defined.

## 6.0 REFERENCES

NOTE: Refer to the latest revision of the documents listed below unless otherwise stated.

### 6.1 REQUIREMENTS DOCUMENTS

None

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## 6.2 INTERFACE DOCUMENTS

Project Glossary, YMP/89-15

AP-6.3Q, Interaction of Participants and Outside Interests with Yucca Mountain Project Sample Management

QMP-15-01, Control of Nonconformances

QMP-17-01, Records Management: Record Source Implementation

BTP-SMF-001, Sample Management for the Yucca Mountain Site Characterization Project Office

## 7.0 FIGURES AND ATTACHMENTS

Figure 1, BTP-SMF-005 Flowchart

## 8.0 RECORDS

The following Quality Assurance documents are generated by this procedure:

1. Sample Examination Request
2. Unqualified Samples Examination Agreement
3. Sample Examination Record

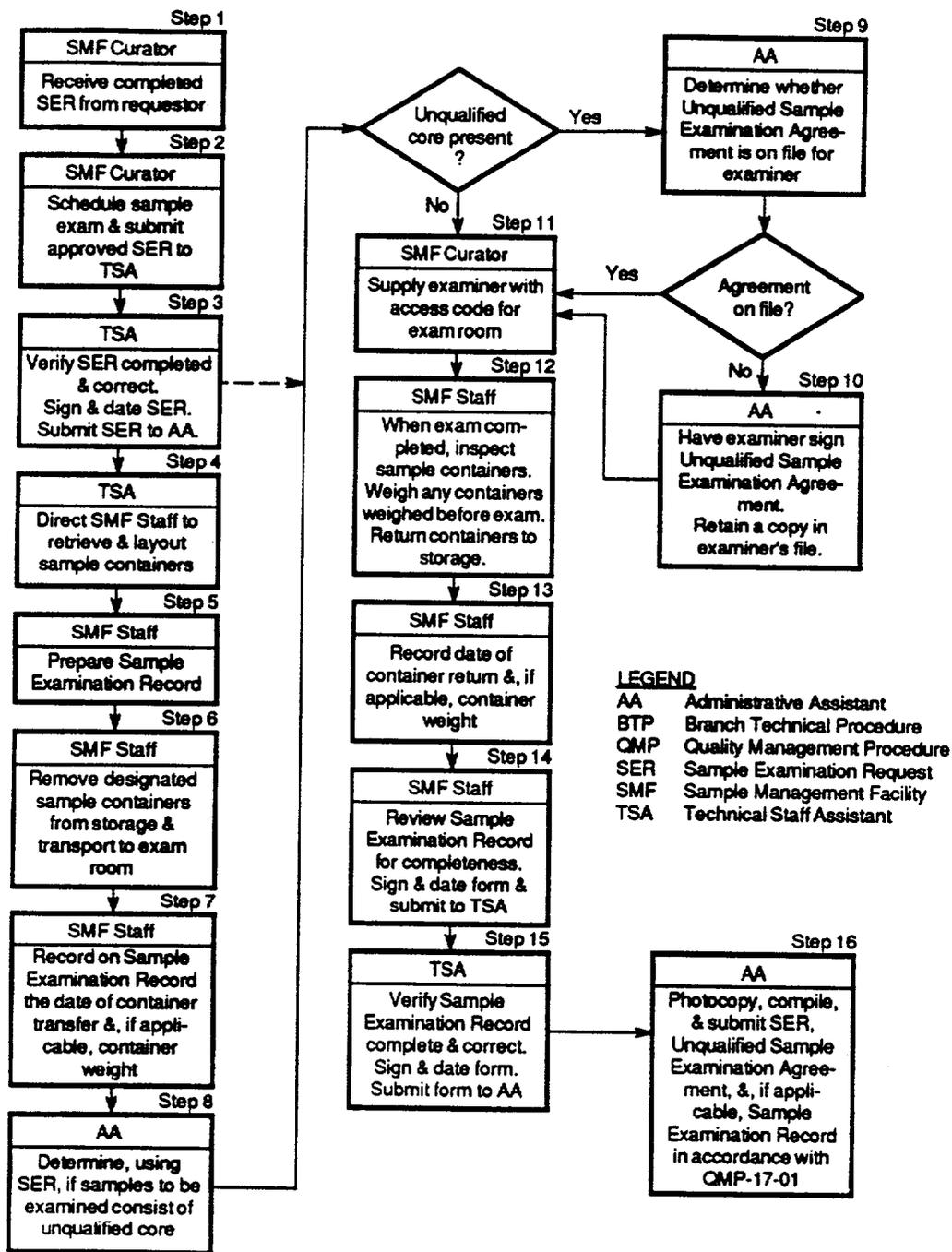
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**LEGEND**  
 AA Administrative Assistant  
 BTP Branch Technical Procedure  
 CMP Quality Management Procedure  
 SER Sample Examination Request  
 SMF Sample Management Facility  
 TSA Technical Staff Assistant

Figure 1 - BTP-SMF-005 Flowchart

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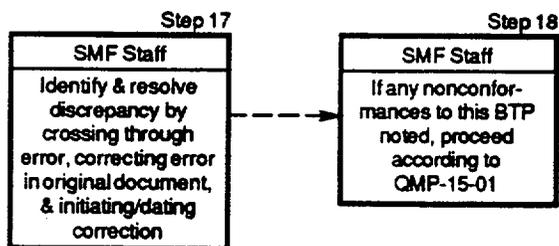
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## IDENTIFICATION AND RESOLUTION OF DISCREPANCIES



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Figure 1 - BTP-SMF-005 Flowchart (continued)