



**Department of Energy**  
Office of Civilian Radioactive Waste Management  
Yucca Mountain Site Characterization Office  
P.O. Box 98608  
Las Vegas, NV 89193-8608

QA: L

**AUG 16 1994**

Larry R. Hayes  
Technical Project Officer  
for Yucca Mountain  
Site Characterization Project  
U.S. Geological Survey  
101 Convention Center Drive  
Suite 860  
Las Vegas, NV 89109

VERIFICATION OF CORRECTIVE ACTION AND CLOSURE OF CORRECTIVE  
ACTION REQUEST (CAR) YM-94-044 RESULTING FROM YUCCA MOUNTAIN  
QUALITY ASSURANCE DIVISION (YMQAD) AUDIT YMP-94-06 OF  
U.S. GEOLOGICAL SURVEY (SCPB: N/A)

The YMQAD staff has verified the corrective action to CAR  
YM-94-044 and determined the results to be satisfactory. As  
a result, the CAR is considered closed.

If you have any questions, please contact either Robert B.  
Constable at 794-7945 or Stephen R. Maslar at 794-7762.

*R.E. Spence*

YMQAD:RBC-4680

Richard E. Spence, Director  
Yucca Mountain Quality Assurance Division

Enclosure:  
CAR YM-94-044

cc w/encl:

~~R. L. Johnson~~, NRC, Washington, DC  
S. W. Zimmerman, NWPO, Carson City, NV  
T. H. Chaney, USGS, Denver, CO  
R. W. Craig, USGS, Las Vegas, NV  
D. D. Porter, SAIC, Golden, CO

cc w/o encl:

W. L. Belke, NRC, Las Vegas, NV  
D. G. Sult, YMQAD/QATSS, Las Vegas, NV

250000

YMP-5

9408300244 940816  
PDR WASTE  
WM-11 PDR

102.7  
WM-11  
NH03

**ORIGINAL**  
THIS IS A RED STAMP

OFFICE OF CIVILIAN  
RADIOACTIVE WASTE MANAGEMENT  
U.S. DEPARTMENT OF ENERGY  
WASHINGTON, D.C.

8 CAR NO.: YM-94-044  
PAGE: 1 OF 1  
QA

**CORRECTIVE ACTION REQUEST**

|  |  |   |
|--|--|---|
| 1 Controlling Document<br>YMP-USGS-QMP-18.02, Revision 3   |  | 2 Related Report No.<br>YMP-94-06                     |
| 3 Responsible Organization<br>USGS   | 4 Discussed With<br>T. Chaney/L. McInroy   |   |
| 5 Requirement:<br>Attachment I provides the surveillance report format. It requires a statement in the report summary on acceptability and effectiveness of the activity under surveillance.   |  |   |
| 6 Adverse Condition:<br>Contrary to the above, surveillance reports issued during FY 1994 do not contain a statement in the report summary on acceptability and effectiveness of the activity. The acceptability and effectiveness statement is contained in the surveillance report transmittal letter. |  |   |
| 9 Does a Significant Condition Adverse to Quality exist? Yes <u>  </u> No <u>x</u><br>If Yes, Circle One: A B C D E  | 10 Does a stop work condition exist?<br>Yes <u>  </u> No <u>x</u> ; If Yes - Attach copy of SWO<br>If Yes, Circle One: A B C | 3 Response Due Date:<br>20 Working Days From Issuance |
| 11 Required Actions: <input checked="" type="checkbox"/> Remedial <input checked="" type="checkbox"/> Extent of Deficiency <input checked="" type="checkbox"/> Preclude Recurrence <input type="checkbox"/> Root Cause Determination   |  |   |
| 12 Recommended Actions:<br>Comply with procedure requirements.   |  |   |
| 7 Initiator<br>S. Maslar<br><i>C.C. Latham for</i><br>6-30-94  | 14 Issuance Approved by:<br>QADD <i>RC Latham</i> <i>for</i> Date 7-4-94   |   |
| 15 Response Accepted<br>QAR <i>S. R. Maslar</i> Date 8/8/94  | 16 Response Accepted<br>QADD <i>RC Latham</i> Date 8/16/94   |   |
| 17 Amended Response Accepted<br>QAR Date   | 18 Amended Response Accepted<br>QADD Date  |   |
| 19 Corrective Actions Verified<br>QAR <i>S. R. Maslar</i> Date 8/12/94   | 20 Closure Approved by:<br>QADD <i>RC Latham</i> Date 8/16/94  |   |

ENCLOSURE

REV. 2/14/94

OFFICE OF CIVILIAN  
RADIOACTIVE WASTE MANAGEMENT  
U.S. DEPARTMENT OF ENERGY  
WASHINGTON, D.C.

CAR NO. 94-044

PAGE: 1 OF 1  
QA

CORRECTIVE ACTION REQUEST (Continuation Page)

1. CORRECTIVE ACTION RESPONSE FOR CAR No.

- A. **REMEDIAL ACTION:** The identified condition represents a relatively minor procedural violation and is not considered an important Condition Adverse to Quality. Therefore, no remedial action, in the form of revisions to existing Surveillance Reports, will be initiated.
- B. **EXTENT OF THE DEFICIENCY:** The identified condition occurred in approximately 75% (10 of 13) of the Surveillance Reports issued during the last 12 months.
- C. **ROOT CAUSE DETERMINATION:** Not required.
- D. **CORRECTIVE ACTION TO PRECLUDE RECURRENCE:** The Verification Supervisor, and the Verification staff, are now fully aware of the requirements. All subsequent Surveillance Reports will contain the statement as required by the QMP.

2. For each action above, identify the name of the individual assigned responsibility for completion of the action and the anticipated (or actual, if complete) completion date.

L.L. McInroy, Verification Supervisor

06/28/94

3. RESPONSE APPROVED:

  
Thomas H. Chaney  
YMP-USGS Quality Assurance Manager

8/1/94  
Date

  
Larry R. Hayes  
Chief, Yucca Mountain Project Branch

8/1/94  
Date

OFFICE OF CIVILIAN  
RADIOACTIVE WASTE MANAGEMENT  
U.S. DEPARTMENT OF ENERGY  
WASHINGTON, D.C.

8.  
CAR NO. YM-94-044  
PAGE 1 OF 1  
QA

CORRECTIVE ACTION REQUEST (CONTINUATION PAGE)

1. Verification of CAR YM-94-044

Have evaluated the one surveillance report issued since the audit (Report USGS-94-063-1S) for compliance with the procedure. It does comply with the procedure. Based on the minor nature of this CAR, this is acceptable to close it out.

2.

S. R. Maslar  
STEPHEN R. MASLAR

DATE

8/12/94



14082 Denver West Parkway Suite 200 Golden Colorado 80401

TO:

STEVE MASLER

LOCATION:

FAX NUMBER:

702-794-7125

CONF. NUMBER:

702-794-7762

FROM:

LARRY MC INROY

DATE:

8/10/94

PHONE NUMBER:

303/236-4170

FAX NUMBER:

303/236-5046

COMMENTS:

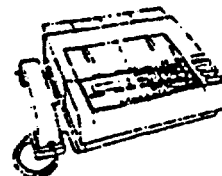
Steve - This is the

last only) surveillance performed

since your audit.

Larry

NUMBER OFS: 4 INCLUDING THIS PAGE





IN REPLY REFER TO:

## United States Department of the Interior

## GEOLOGICAL SURVEY

Box 25046 M.S. 425

Denver Federal Center

Denver, Colorado 80225

WBS#: 1.2.11.3.2

QA: QA

June 28, 1994

**TO:** Chief, Yucca Mountain Project Branch

**FROM:** Thomas H. Chaney *THC*  
YMP-USGS Quality Assurance Manager

**SUBJECT:** YMP-USGS Quality Assurance Surveillance Report USGS-94063-IS

Enclosed is a report of the surveillance conducted the Quality Assurance Office June 16-17, 1994. As a result of that surveillance, it was determined that the activities being observed generally are adequately and effectively conforming with the specified and applicable elements of the YMP-USGS QA Program. No Quality Deficiency Reports will be issued as a result of this surveillance.

If you have any questions, require further information, or need assistance, please contact me at 236-1418 or Donna Sinks at 273-1251.

THC:djs

Attachment

Copy to:

R.E. Spence, DOE/YMP  
Hydrologic Investigations Program Chief  
Geologic Studies Program Chief  
M.S. Boucher, USGS  
W.G. Brown, SAIC  
T.L. Campbell, FEC  
A.L. Flint, USGS  
L.L. Hofmann, FEC  
J.A. Lindberg, SAIC  
T.M. Mendez-Vigo, SAIC

M.H. Mustard, USGS  
M.H. Nash, FEC  
W. Rodman, USGS  
J.P. Rousseau, USGS  
P.G. Sheaffer, SAIC  
P. Tucci, USGS  
J.M. Watson, FEC  
A.M. Whiteside, SAIC  
J.B. Woolverton, USGS  
YMP-USGS LRC File: 3.18.02 (USGS-94063-IS)

## SURVEILLANCE REPORT

SURVEILLANCE NO. USGS-94063-IS

8.3.1.2.2.1.1: SIEVING OF GEOTECHNICAL SAMPLES  
8.3.1.2.2.1.3: CONSTANT-HEAD RING INFILTRMETER  
8.3.1.2.3.1.2: USW UZ-14 WATER LEVEL MEASUREMENTS

June 16-17, 1994

UNITED STATES GEOLOGICAL SURVEY  
YUCCA MOUNTAIN PROJECT  
QUALITY ASSURANCE OFFICE

PREPARED BY:



D.J. Sinks, SAIC QA, Golden, QA Verification

Date:

6/28/94

APPROVED BY:



T.H. Chaney, YMP USGS QA Manager

Date:

6/28/94

**SURVEILLANCE REPORT  
SURVEILLANCE NO. USGS-94063-IS**

**SUMMARY:**

A field surveillance of the following three SCP activities was conducted June 16-17, 1994, at the USGS facilities and borehole USW UZ-14, Area 25, Nevada Test Site (NTS):

- |               |  |
|---------------|--|
| 8.3.1.2.2.1.1 | Characterization of hydrologic properties of surficial materials |
| 8.3.1.2.2.1.3 | Evaluation of artificial infiltration                            |
| 8.3.1.2.3.1.2 | Site potentiometric level evaluation                             |

Three areas were the subject of the surveillance: 1) sieving of dried bulk geotechnical samples, 2) preparation for operation of the constant-head ring infiltrometer, and 3) water level measurements at USW UZ-14. Both USGS and subcontractor personnel were responsible for implementing portions of these SCP activities during the surveillance. The field staff was generally knowledgeable of procedural requirements and was properly implementing the requirements. Based on the surveillance, it was determined that these portions of the three activities are generally acceptable and effectively conforming with the specified and applicable elements of the YMP-USGS QA Program. No Quality Deficiency Reports (QDRs) are issued as a result of this surveillance.

**SURVEILLANCE ACTIVITY:**

The applicable study plans include:

- |                           |  |
|---------------------------|--|
| 8.3.1.2.2.1, R2 (3/23/93) | Characterization of the unsaturated zone infiltration                |
| 8.3.1.2.3.1, R0 (2/26/91) | Characterization of the site saturated-zone ground-water flow system |

Other applicable documentation include:

- Quality Assurance Grading Reports (QAGRs) -
  - G1233121, R0 (8.3.1.2.2.1)
  - G1233131, R0 (8.3.1.2.3.1)
- YMP-USGS Activity Controls Specifications Reports (ACSRs) -
  - YMP-USGS-ACS-G1233121-1, R0 (8.3.1.2.2.1.1)
  - YMP-USGS-ACS-G1233121-3, R0 (8.3.1.2.2.1.3)
  - YMP-USGS-ACS-G1233131-1, R0 (8.3.1.2.3.1.2; software only)

**SURVEILLANCE DATES:** June 16-17, 1994

**SURVEILLANCE LOCATIONS:**

- Borehole USW UZ-14, Drillhole Wash
- USGS Hydrologic Research Facility (HRF)
- Bldg. 4838, Soils Laboratory
- Follow-up telephone discussions with technical personnel and Administration and Training staff

**SURVEILLANCE PERSONNEL:** Donna J. Sinks - SAIC, Golden, CO