Department of Energy
Yucca Mountain Site Characterization
Project Office
P. O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.9.3

AUG 21 1992

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-92-028 RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION (YMQAD) AUDIT YMP-92-13 OF THE U.S. GEOLOGICAL SURVEY

The YMQAD staff has verified the corrective action to CAR YM-92-028 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 Cynthia H. Prater at 794-7742.

R. E. Spence

Richard E. Spence, Director
Yucca Mountain Quality Assurance Division

YMQAD:RBC-5152

Enclosure:
CAR YM-92-028

cc w/encl:
K. R. Hooks, NRC, Washington, DC
S. W. Zimmerman, NWPO, Carson City, NV
T. H. Chaney, USGS, Denver, CO
J. H. Rusk, MACTEC, Las Vegas, NV
N. J. Brogan, SAIC, Las Vegas, NV, 517/T-12
W. B. Simecka, YMP, NV

cc w/o encl:
J. W. Gilray, NRC, Las Vegas, NV
D. D. Porter, SAIC, Golden, CO

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Add: K. Hooks Hr Encl 1 1

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

8 CAR NO.: YM-92-028
DATE: 4/14/92
SHEET: 1 OF 1
QA

CORRECTIVE ACTION REQUEST

1 Controlling Document
USGS QAPP, Revision 5

2 Related Report No.
Audit YMP-92-13

3 Responsible Organization
USGS

4 Discussed With
E. Gutentag, USGS

5 Requirement:
USGS QAPP, Revision 5, Paragraph 12.2.1 states in part: "...each device shall have a unique identification. This identification shall be recorded on the data sheet, log, etc., with the measurement taken, to insure traceability to the measurement of the device that was used to take the measurement.

6 Adverse Condition:
Measurements taken in the implementation of NWM-USGS-HP-23, Revision 2, related to temperature (air and water) and conductivity, do not relate the data to the specific instrument used to acquire the data.

9 Does a significant condition adverse to quality exist? Yes___ No X
If Yes, Circle One: A B C

10 Does a stop work condition exist?
Yes___ No X; if Yes - Attach copy of SWO
If Yes, Circle One: A B C D

11 Response Due Date:
20 Days From Issuance

12 Required Actions: ☐ Remedial ☒ Extent of Deficiency ☒ Preclude Recurrence ☐ Root Cause Determination

13 Recommended Actions:
1. Identify whether the above mentioned adverse condition had an affect on quality-related activities.
2. Identify these activities and provide the measures required to correct them.
3. Investigate the program process and identify the steps necessary to prevent recurrence.

7 Initiator: J Blaylock — Date 4/14/92	14 Issuance Approved by: QADD R.C. Spence — Date 4/20/92
15 Response Accepted: QAR J Blaylock — Date 6/5/92	16 Response Accepted: QADD R.C. Spence — Date 6/9/92
17 Amended Response Accepted: QAR — Date	18 Amended Response Accepted: QADD — Date
19 Corrective Actions Verified: QAR [illegible] — Date 8/19/92	20 Closure Approved by: QADD R.C. Spence — Date 8/20/92

REV. 08/91

ENCLOSURE

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

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CORRECTIVE ACTION REQUEST (Continuation Page)

1. YMP-USGS CORRECTIVE ACTION RESPONSE FOR CAR # YM-92-028

A. Remedial Action - Actions taken to correct specific deficiencies noted.

Not requested from Yucca Mountain Quality Assurance Division Office.

B. Investigative Action - Actions taken to determine the extent of the condition.

Inspection of SCP Activity # 8.3.1.5.2.1.3 sample collection data forms indicated that thermometer and conductivity meter equipment identification generally were not recorded with the data measurements.

The fact that temperature probe and conductivity meter identifications have not been recorded in a logbook or other organized document in the past has not negatively impacted the data collected with those instruments. The need for traceability between the measuring and test equipment (M&TE) and the measurements taken is to assure that the affected data can be identified if a piece of M&TE is found out of calibration. Recording the unique identification of each piece of M&TE with each recording of measurements taken provides a very direct link. Traceability can be established by other means, i.e., listing of active equipment for the Activity. Even though several different temperature probes could have been used to collect a measurement, if one of the probes fails, the investigator can always bracket the suspect data. In not specifically identifying which instrument is used in taking the measurement, the investigator runs the risk of having a larger block of data that may be suspect than if care was taken to specify the individual instrument.

Because of the lack of quality impact, no further investigative actions are warranted.

C. Root Cause Determination - Identification of the root cause of the condition.

Not requested from Yucca Mountain Quality Assurance Division Office.

D. Corrective Actions To Preclude Recurrence - Actions taken to address the root cause and preclude recurrence of the condition.

For the cited adverse condition, the sample collection data forms will be changed to specifically address the overlooked requirement. In the future, this will assure exact instrument identification will be recorded with the measurements taken.

YMP-USGS-QMP-5.01, Preparation of Technical Procedures, and YMP-USGS-QMP-5.05, Scientific Notebook System, will be changed to appropriately address the cited requirement.

Ltr dtd 5/18/92 - Hayes to Spence

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CORRECTIVE ACTION REQUEST (Continuation Page)

2. **Scheduled Corrective Actions and Responsibilities.**

6/01/92 Change sample collection data forms -- E. Gutentag

6/30/92 Change YMP-USGS QMPs 5.01 and 5.05 -- T. Chaney

3. **Response Approved:**

Larry R. Hayes, USGS Chief, Yucca Mountain Project Branch — Date 5/19/92

Thomas H. Chaney, YMP-USGS Quality Assurance Manager — Date 5/18/92

CAR NO. YM-92-028
DATE: 5/26/92
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WASHINGTON, D.C.

CORRECTIVE ACTION REQUEST (Continuation Page)

1. YMP-USGS SUPPLEMENTAL RESPONSE FOR CAR # YM-92-028

   A. Remedial Action - Actions taken to correct specific deficiencies noted.

   Temperature probes T18130, T18127, T15575, and T15593 used in support of HP-23 were recalibrated and found to be within acceptable limits.

   Conductivity meters 76014, 960265, and 960266 used in support of HP-23 are operator-to-calibrate each use. Remedial actions are not warranted for the conductivity meters.

3: Response Approved:

5/26/92
Larry R. Hayes, USGS Chief, Date
Yucca Mountain Project Branch

5/26/92
Thomas H. Chaney, Date
YMP-USGS Quality Assurance Manager

Ltr dtd 5/26/92 - Hayes to Spence

REV. 08/91

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CORRECTIVE ACTION REQUEST (Continuation Page)

VERIFICATION OF CAR NO. YM-92-028

Verification of CAR YM-92-028 was performed on July 28, 1992.

REMEDIAL:

No remedial action was required.

CORRECTIVE ACTION TO PRECLUDE RECURRENCE:

Completion of the following corrective action committments was verified:

1. Modification M2 was issued to QMP-05.01, Revision 4, "Preparation of Technical Procedures," on June 16, 1992. This modification was generated to appropriately address the the requirement contained in USGS QAPP, Revision 5, Paragraph 12.2.1.

2. Modification M2 was issued to QMP-05.05, Revision 2, "Scientific Notebook System," on June 16, 1992. This modification was generated to ensure that the unique identifier of equipment used was recorded.

3. The data collection form were modified to include the name and serial number of each piece of equipment used to obtain field measurements.

Cynthia H. Prater, QAR Date