



Department of Energy

Washington, DC 20585

QA: L

MAY 28 1997

R. W. Craig, Technical Project Officer  
for Yucca Mountain Site  
Characterization Project  
U.S. Geological Survey  
1261 Town Center Drive  
Building 12, Room 1249, M/S 423  
Las Vegas, NV 89134

VERIFICATION OF CORRECTIVE ACTION AND CLOSURE OF DEFICIENCY REPORT  
(DR) YM-96-D-051 RESULTING FROM OFFICE OF QUALITY ASSURANCE (OQA)  
AUDIT YM-ARC-96-10 OF THE U.S. GEOLOGICAL SURVEY

The OQA staff has verified the corrective action to DR YM-96-D-051 and determined the results to be satisfactory. As a result, the DR is considered closed.

If you have any questions, please contact either James Blaylock at (702) 794-1420 or John S. Martin at (702) 794-5591.

Donald G. Horton, Director  
Office of Quality Assurance

OQA:JB-1621

Enclosure:  
DR YM-96-D-051

- cc w/encl:
- J. O. Thoma, NRC, Washington, DC
- S. W. Zimmerman, NWPO, Carson City, NV
- T. H. Chaney, USGS, Denver, CO
- D. J. Sinks, OQA/USGS, Denver, CO
- A. M. Whiteside, OQA/USGS, Denver, CO

- cc w/o encl:
- W. L. Belke, NRC, Las Vegas, NV
- J. S. Martin, OQA/QATSS, Las Vegas, NV
- D. G. Sult, OQA/QATSS, Las Vegas, NV
- James Blaylock, DOE/OQA, Las Vegas, NV
- R. W. Clark, DOE/OQA, Las Vegas, NV

NH331,  
102.7  
wm-11

9706040002 97052B  
PDR WASTE  
WM-11 PDR



Printed with soy ink on recycled paper

cc ip! DW07/HLUR

ORIGINAL  
THIS IS A RED STAMP

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

8  
 Performance Report  
 Deficiency Report  
YM-96-D-051  
NO. YMQAD-96-D051  
PAGE 1 OF 2  
QA: L

PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document:  
QARD, DOE/RW-0333P, Revision 5

2 Related Report No.  
YM-ARC-96-10

3 Responsible Organization:  
U.S. Geological Survey (USGS)

4 Discussed With:  
T. Chaney/ R. Craig

5 Requirement/Measurement Criteria:  
QARD, 17.2.2.C, states in part: "Individuals handling QA records shall protect them from damage or loss until the records are submitted to the records management system."

6 Description of Condition:  
Contrary to the above; USGS has lost and/or misplaced the following records:

Supplier Evaluation, 95-044, of Intertyme Metrology  
Supplier Verification, 95-045, of Lengheim/Mathis  
Supplier Evaluation, 95-046, of DRI/Dr. Haas  
Supplier Verification, 95-039, of CBS

7 Initiator  
John S. Martin *Smalley for*  
Date 03/29/96

9 QA Review  
QAR *Smalley*  
Date 4/8/96

10 Response Due Date  
20 Working Days From Issuance

11 QA Issuance Approval  
*W. B. Combs*  
QAR (PR)/AOQAM (DR)  
Date 4/10/96

12 Remedial Actions:

13 Remedial Action Response By:  
*SEE ATTACHED RESPONSE*  
Date

14 Remedial Action Due Date  
*SEE ATTACHED RESPONSE*  
Date

15 Remedial Action Response Acceptance  
QAR *N/A* Date

16 PR Verification/Closure  
QAR *N/A* Date

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

8  
DR NO. *YM-96-D-051*  
PAGE 2 OF 2  
QA: L

**DEFICIENCY REPORT**

**17 Recommended Actions:**

Describe those actions necessary to correct those deficiencies identified within the DR.

Investigate to determine the extent of like deficiencies and those actions necessary to correct those identified.

Determine root cause of the deficient condition.

Determine those actions necessary to preclude recurrence

**18 Investigative Actions:**

**19 Root Cause Determination:**

**20 Action to Preclude Recurrence:**

**21 Response by:**

*SEE ATTACHED RESPONSE*  
Date

**22 Corrective Action Completion Due Date:**

*SEE ATTACHED RESPONSE*

**23 Response Accepted**

QAR

*[Signature]*

Date *5/16/97*

**24 Response Accepted**

AOQAM

*[Signature]*

Date *5/24/97*

**25 Amended Response Accepted**

QAR

*N/A*

Date

**26 Amended Response Accepted**

AOQAM

*N/A*

Date

**27 Corrective Actions Verified**

QAR

*James Blaylock*

Date *5/21/97*

**28 Closure Approved by:**

AOQAM

*[Signature]*

Date *5/28/97*

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

8  Performance Report  
 Deficiency Report

NO. YMGAD-96 D051  
PAGE OF  
QA: L

PR/DR CONTINUATION PAGE

**Block 12: Remedial Actions:**

For those reports/results which have been found and were already completed, the report/results will be submitted to the records system, if not already submitted.

For those records which were not completed prior to the evaluator leaving the project AND for those records which had been completed but cannot be located when all possible sources have been investigated, the QA Manager will make a determination, based on current status of the vendor and other documentation available, whether the evaluation needs to be repeated at this time. Either a new evaluation will replace the unfinished one or a justification statement will be put to file to explain why it was not completed and the impact.

**Block 13: Remedial Action Response by:**

See block 21.

**Block 14: Remedial Action Due Date:**

See block 22.

**Block 18: Investigative Actions:**

The status for each specific cited case is as follows:

- o In process records of the supplier evaluation for Intertyme Metrology, USGS-95044-SE have been located. It appears that the report was not yet written at the time the evaluator left the project.
- o The results of the supplier verification for Langham/Mathis, USGS-95045-SV have been located. The results were distributed under a cover letter. Investigation will continue to determine whether the results had been submitted to the records system.
- o The evaluation of DRI/Dr. Haas, USGS-95046-SE, was performed 8/10/95 and the evaluator's notes have been located but the results of the evaluation were not finalized into a report other than the Supplier Evaluation Report out from AP-7.4Q.
- o The results of the supplier verification of Certified Balance Service, Inc., USGS-95039, have not been located to date, however a Quality Deficiency Report initiated during the source verification has been issued, responded to, verified, and closed. Investigative actions continue to check other possible sources of documentation of the source verification results.

5/10/96 CRAIG TO SPENCE

P. 3 of 13

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

8  Performance Report  
 Deficiency Report

NO. YMQAD-96-D051

PAGE OF  
QA: L

PR/DR CONTINUATION PAGE

The USGS is in the process of contacting the former QA support contractor to see if their corporate records might be retrievable. Also, a search of the records system has not yet been completed.

The investigative actions taken to date indicate a need to update the oversight activity log. If in updating the log, additional records are noted as missing, remedial actions for those records will also be performed under this deficiency report.

Block 19: Root Cause:

The root cause for the missing records identified in this deficiency can be attributed to the abrupt termination of the USGS's QA support contractor due to the FY '96 budget cuts. The USGS QA Office had approximately two weeks to downsize its staff by approximately 70%. The USGS QA Manager anticipated that in process work would be left as electronic files. But, for the cited reports, those files were not retained.

Block 20: Actions to Preclude Recurrence:

The lessons learned from this experience will allow future transitions of this type to be better planned and managed.

Block 21: Response by:

*for* Martha H. Missfeld  
Thomas H. Chaney, YMP-USGS Quality Assurance Manager

Date: 5-10-96

Block 22: Corrective Action Completion Due Date:

Actions under this DR are of secondary priority to Corrective Action Requests YMQAD-96-C004 and -C005. Because of limited resources it is not anticipated that investigative actions, the updating of the oversight log, and associated impact analysis will be completed prior to October 15, 1996.

# ORIGINAL

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

Performance Report

Deficiency Report

NO. YMQAD-96-D051

PAGE \_\_\_\_\_ OF \_\_\_\_\_  
QA:L

## PR/DR CONTINUATION PAGE

### SUPPLEMENTAL RESPONSE FOR DEFICIENCY YMQAD-96-D051

The following information is provided as an update and supplemental response for Blocks 12, 14, 18 and 22:

#### Block 12: Remedial Actions:

The following actions have been taken on the cited cases since the initial response:

- 1) The oversight log has been updated to reflect the results to date of the investigative actions.
- 2) A limited scope supplier evaluation was performed of Desert Research Institute, Dr. Haas Radiocarbon Laboratory, USGS-96001-SE, August 15, 1996, as a follow up to USGS-95046-SE (draft report and three draft performance reports found in DRI vendor file)
- 3) It has been determined that reports were not completed for both USGS-95044-SE, Intertyme Metrology and USGS-95039-SV, Certified Balance Service, Inc. A justification statement will be put to file to explain why they were not completed, and the impacts.
- 4) It has been determined that USGS-95045-SV, Langham Mathis, was not submitted to the records system.

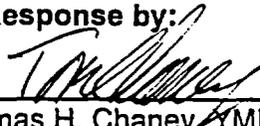
#### Block 14: Remedial Action Due Date:

Due to the large volume of record packages requiring submittal to the records system, the amended schedule for the submittal of records to the records systems is January 15, 1997.

#### Block 18: Investigative Actions:

Investigative actions were completed on October 22, 1996. Status is provided on the attached list.

#### Block 21: Response by:

  
Thomas H. Chaney, YMP-USGS Quality Assurance Manager

Date: 10/25/96

#### Block 22: Corrective Action Completion Due Date:

Remedial actions will be completed prior to January 15, 1997.

10/25/96 CRAIG TO SPENCE

SUPPLEMENTAL RESPONSE FOR YM-96-D051  
ATTACHMENT

Page 1 of 4

Records Identifier	Activity/Vendor	Status	Comments
USGS-94002-IA	Readiness Review	Backlog Record Pkg	Report never issued. Explanatory Memo prepared 9/29/95
USGS-94005-IA	Training	Backlog Record Pkg	Report never issued. Explanatory Memo prepared 9/29/95
USGS-94019-SE	Beta Analytic, Inc.	Backlog Record	Desk Top Evaluation
USGS-94020-SE	NOSAMS	Report not issued	Justification/impact to be prepared.
USGS-94024-SA	CSU	Evaluation not performed.	Memo in file to remove from ASL. Lack of activity.
USGS-94033-SA	USGS Branch of Geochemistry	Report not issued	Justification/impact to be prepared.
USGS-94034-SA	USGS Nat'l Mapping Division	Report not issued	Justification/impact to be prepared.
USGS-94039-SA	USGS Nat'l Water Quality Laboratory	Report not issued	Justification/impact to be prepared
USGS-94044-SA	Geochron Lab/Kruger	Report not issued	Justification/impact to be prepared.
USGS-94054-SE	Deban Ent.	Evaluation not performed	See memo to remove from ASL. Lack of activity.
USGS-94055-SE	PBT, Inc.	Evaluation not performed	See memo to remove from ASL. Lack of activity.
USGS-94056-SE	Activation Labs	Backlog Record	Memo to file to add to ASL.

USGS-94057-IA	Ghost Dance Fault	Backlog Record Pkg	Report issued 9/27/95.
USGS-94059-SE	University of Houston	Backlog Record Pkg.	See memo to retain on ASL - (BQA report)
USGS-94060-SE	Wilcoxon	Evaluation not performed.	Lack of activity; Need justification memo from QA Manager.
USGS-94064-SE	Intertyme Metrology	Backlog Record Pkg.	Report issued 7/21/94.
USGS-94065-SE	NM Bureau of Mines	Backlog Record Pkg.	Report issued 6/6/94.
USGS-94067-IA	HRF Calibration Lab	Backlog Record	Report issued 9/26/95.
USGS-94068-SE	U of C/INSTARR	Backlog record	Report issued 6/21/94.
USGS-94070-SA	SATEC Systems	Audit not performed as originally scheduled.	Need justification/impact memo to file..
USGS-94073-SA	Mountain States Micrographics	Draft Audit Report in files.	Need justification/impact memo to file.
USGS-94074-SS	SATEC	Backlog Record Pkg.	Report issued 10/11/94.
USGS-95001-SV	BASKI	Backlog Record Pkg	Report issued 10/27/94.
USGS-95002-SV	Geometrics	Backlog Record Pkg.	Report issued 11/11/94.
USGS-95003-SE	Druck, Inc.	Not performed.	Lack of activity. Memo removes from ASL.
USGS-95006-SE	Fluke Customer Support Services	Draft report not issued.	Need justification/impact memo to file.

USGS-95007-SE	USGS, Branch of QA	Draft report not issued.	Need justification/impact memo to file.
USGS-95009-SE	Environmental Resources	Backlog Record Pkg.	Report issued 8/8/95.
USGS-95010-SS	REBS	Audit not performed.	See QDR 94-83-3 for justification.
USGS-95012-IS	Calibration Program	Audit report not issued.	Need justification/impact memo to file.
USGS-95015-SV	North West Welding	Backlog Record Pkg.	Source Verification completed on 2/16/95.
USGS-95017-IS	Technical Review of old measured sections.	Backlog Record Pkg.	Report issued 9/26/95.
USGS-95024-IS	Texseis	Backlog Record Pkg.	Report issued 9/28/95
USGS-95027-SV	Geometrics	Backlog Record Pkg.	Source Verification issued 3/22/95.
USGS-95032-IA	Programmatic audit	Backlog Record Pkg.	Pkg previously submitted to LRC on 8/29/95.
USGS-95034-SE	Scott Speciality Gases	Source Evaluation Report not issued.	Need justification/impact memo to file.
USGS-95035-SV	McCrometer/PCI Sales	Backlog Record Pkg.	Report issued 4/28/95.
USGS-95038-IS	Infiltration Properties, Solitario Canyon	Backlog Record Pkg.	Report issued 8/31/95.
USGS-95039-SV	CBS	No report issued.	Need justification/impact memo to file.

USGS-95041-IA	Personnel qualifications and QMPs	Report not issued	Need justification/impact memo to file.
USGS-95043-IS	USGS Publication Adequacy evaluation	Surveillance not completed.	Need justification/impact memo to file.
USGS-95044-SE	Intertyme Metrology	Report not issued	Need justification/impact memo to file.
USGS-95045-SV	Langham Mathis	Backlog Record Pkg.	Report issued 8/8/95.
USGS-95046-SE	DRI, Dr. Haas, Radiocarbon Laboratory	Report not issued.	Need justification/impact memo to file.
USGS-95047-SE	UNLV, Harry Reid	Report not issued.	Need Justification/impact memo to file.
USGS-95048-SV	McCrometer/PCI Sales	Source Verification Report not issued.	Report pending receipt of supporting information. Need justification/impact memo to file.
USGS-95049-SV	Baker Oil	Source Verification not performed.	No actions necessary.
USGS-96001-SE	DRI	Backlog Record Pkg.	Report issued 10/1/96
USGS-96002-IS	Geologic Mapping of ESF	Backlog Record Pkg.	Report issued 9/30/96.
USGS-96003-IS	LBL	Backlog Record Pkg.	Report issued on 4/3/96.
USGS-96004-IS	HRF Cal Lab	Report in-process.	Report in- process.

ORIGINAL

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

- Performance Report
- Deficiency Report

NO. YMOAD-96-0051

PAGE 6 OF \_\_\_\_\_

QA:L

PR/DR CONTINUATION PAGE

SUPPLEMENTAL RESPONSE AND REQUEST FOR EXTENSION

The following information is provided as an update, supplemental response, and request for extension for Blocks 12, 14, 18, and 22 of the DR:

**Block 12 - Remedial Actions:**

The following actions have been taken on the 51 cited cases (see attachment to 10/25/96 supplemental response):

1. Twenty nine (29) records packages (see Attachment A of this response) were submitted to the Records Processing Center (RPC) on 1/13/97 as USGS Transmittal Number 97.012. These records packages consist of reports (as applicable), memoranda, and additional information pertinent to each surveillance, audit, evaluation, or source verification.
2. Twenty two (22) remaining reports (see Attachment B to this response) need additional actions in order to prepare adequate records packages (see "Action Needed" column in Attachment B):
  - 6 need further investigation ("investigate") as noted
  - 14 need memoranda prepared ("memo") providing historical summaries for non-issuance of reports
  - 1 record package (a memorandum) was submitted to the USGS Records Coordinator 1/19/97 ("memo subm") and will be submitted to the RPC
  - 1 report will be issued ("report") and submitted to the RPC

**Block 14 - Remedial Action Due Date:**

It is anticipated that the 15 memoranda and one report will be submitted to the RPC by January 31, 1997. The investigative actions and submittal to the RPC of the remaining reports will be completed by April 1, 1997. Therefore, all final remedial actions will be completed by April 1, 1997.

**Block 18 - Investigative Actions:**

Investigative actions for the 6 reports referenced in Block 12. #2, will be completed and records packages prepared and submitted to the RPC

**Block 21 - Response by:**

*Martha H. Mustard*

Date: 1-14-97

for Thomas H. Chaney, YMP-USGS Quality Assurance Manager

**Block 22 - Corrective Action Completion Due Date:**

Final remedial actions will be completed by April 1, 1997.

dr\ym96D051.115

Report	Topic	Submitted
USGS-94056-SE/BQA	Activation Labs.	1/13/97 (RPC)
USGS-95001-SV	Baski	1/13/97 (RPC)
USGS-94019-SE/BQA	Beta Analytic	1/13/97 (RPC)
USGS-94024-SA	Colorado State University	1/13/97 (RPC)
USGS-94054-SE	Deban Enterprises	1/13/97 (RPC)
USGS-96001-SE	Desert Research Institute - Radiocarbon Lab.	1/13/97 (RPC)
USGS-95027-SV	EG&G Geometrics	1/13/97 (RPC)
USGS-95002-SV	EG&G Geometrics	1/13/97 (RPC)
USGS-95009-SE	Environmental Resources Associates	1/13/97 (RPC)
USGS-96002-IS	Geologic mapping of the ESF	1/13/97 (RPC)
USGS-94057-IA	Ghost Dance Fault	1/13/97 (RPC)
USGS-95038-IS	Infiltration properties, Solitario Canyon	1/13/97 (RPC)
USGS-94064-SE	Intertyme Metrology	1/13/97 (RPC)
USGS-95045-SV	Langham Mathis	1/13/97 (RPC)
USGS-96003-IS	Lawrence Berkeley Laboratory	1/13/97 (RPC)
USGS-94020-SE	National Ocean Sciences (NOSAMS)	1/13/97 (RPC)
USGS-94065-SE/BQA	New Mexico Bureau of Mines	1/13/97 (RPC)
USGS-95015-SV	North West Welding	1/13/97 (RPC)
USGS-94055-SE	PBT, Inc.	1/13/97 (RPC)
USGS-95035-SV	PCI Sales/ McCrometer	1/13/97 (RPC)
USGS-95032-IA	QA Program Sections 5 and 12	1/13/97
USGS-94002-IA	Readiness review	1/13/97 (RPC)
USGS-94074-SS	SATEC	1/13/97 (RPC)
USGS-95024-IS	Seismic data processing - TexSeis	1/13/97 (RPC)
USGS-95017-IS	Technical review of old measured sections	1/13/97 (RPC)
USGS-94005-IA	Training	1/13/97 (RPC)
USGS-94068-SE/BQA	University of Colorado - INSTARR	1/13/97 (RPC)
USGS-94059-SE	University of Houston	1/13/97 (RPC)
USGS-94067-IA	USGS Calibration Lab at HRF	1/13/97 (RPC)

Report	Topic	Action Needed
USGS-94033-SA/BQA	USGS Branch of Geochemistry	memo: ref. impact anal.; discuss dif. of opinions of auditors; work tech. sound; doc. problems
USGS-94034-SA	USGS National Mapping Division	memo: checklists, explanation, meeting attendance, recommend doing closing calcs. (Vucovich)
USGS-94039-SA/BQA	USGS NWQL	investigate: T. Chaney to investigate
USGS-94044-SA	Geochron/Krueger	investigate: E. Reiter investigating
USGS-94060-SE	Wilcoxon	memo: submit L. McInroy memo of 5/13/94; ask J. Golos re: if PO
USGS-94070-SA	SATEC Systems	memo: ref. USGS-94072-SE and 074-SE; use D052 history chron.
USGS-94073-SA	Mountain States Micrographics	memo: ref. impact analysis and acceptance for intended use; ref. 96-P015
USGS-95003-SE	Druck	memo: to file that not QA (won't use calcs.); see impact statement
USGS-95006-SE	Fluke (Irvine, CA)	memo: draft to file; not issued in timely manner; no need to put on QSL because Everett on QSL
USGS-95007-SE/BQA	USGS Branch of Quality Assurance	memo: include draft report; 11/28/95 memo & checklist; 8/9/95 memo
USGS-95010-SS	REBS	memo: summary of 2 QDRs, removal from ASL, impact statement, draft report
USGS-95012-IS	Calibration Program	memo: to file from T. Chaney: ref. USGS-95032-IA and resultant deficiencies
USGS-95034-SE	Scott Speciality gases	investigate: E. Reiter investigating
USGS-95039-SV	CBS	investigate: work 7-95-9/95?; see Whiteside; SER relate to specific PO?; look @ impact statement
USGS-95041-IA	Personnel quals. and QMPs	memo: submit draft D. Valega report and memo that T. Chaney disagreed
USGS-95043-IS	USGS publication adequacy	memo: ref. YMQAD-95-C45, YMQAD-95-C46, YM-96-C002
USGS-95044-SE	Intertyme Metrology	memo: submit 5/22/95 letter and supplier QAM checklist; add history summary
USGS-95046-SE	Desert Research Institute - Radiocarbon Lab	memo: to file ref. 96001-SE - E. Reiter did USGS-96001-SE
USGS-95047-SE	University of Nevada, Las Vegas - Harry Reid Center	memo subm: to RC 1/2/97
USGS-95048-SV	PCI Sales/ McCrometer	investigate: E. Reiter investigating
USGS-95049-SV	Baker Oil Tools	investigate: get with J. Golos: any PO?
USGS-96005-IS (listed as 96004 on DR)	USGS Calibration Laboratory at HRF	report: to be issued

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

8  Performance Report  
 Deficiency Report

NO. YM-96-D-051

PAGE \_\_\_\_ OF \_\_\_\_

QA: L

PR/DR CONTINUATION PAGE

VERIFICATION OF CORRECTIVE ACTION FOR DEFICIENCY REPORT (DR) YM-96-D-051

During Audit USGS-ARC-97-15, the corrective actions taken to close Deficiency Report (DR) YM-96-D-051 were verified. The DR was written because records were not adequately maintained, resulting in lost or misplaced records. In determining the extent of deficiency, USGS identified fifty-one (51) records packages that needed to be assembled and transmitted to the Records Processing Center (RPC). A total of twelve (12) of the records packages were verified for transmittal to the RPC; all had been sent as described. One package containing closing calibrations from the USGS National Mapping Divisions was examined in detail. All packages appeared in order.

As a result of this verification, DR YM-96-D-051 is considered closed.

James Blaylock

James Blaylock

5/21/97

Date