



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

DEC 16 1994

Les E. Shephard
Technical Project Officer
for Yucca Mountain
Site Characterization Project
Sandia National Laboratories
P.O. Box 5800, Mail Stop 1333
Albuquerque, NM 87185

ISSUANCE OF CORRECTIVE ACTION REQUESTS (CAR) YM-95-014 THROUGH YM-95-019 RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION'S (YMQAD) AUDIT YM-ARP-95-03 OF SANDIA NATIONAL LABORATORIES (SCPB: N/A)

Enclosed are CARs YM-95-014 through YM-95-019 generated as a result of YMQAD Audit YM-ARP-95-03.

Please identify the corrective actions to be taken and implemented to correct the deficiencies. CAR Continuation Sheets and instructions for completion have been provided. Send the originals of your responses to Deborah Sult, YMQAD/QATSS, 101 Convention Center Drive, Suite 640, Las Vegas, Nevada 89109. Responses to the CARs are due 20 working days from the date of this letter. Extensions to due dates must be requested in writing, with appropriate justification, prior to the due dates.

If you have any questions, please contact either Robert B. Constable at (702) 794-7945 or William R. Sublette at (702) 794-7782.

Richard E. Spence, Director
Yucca Mountain Quality Assurance Division

YMQAD:RBC-1342

Enclosures:

1. CARs YM-95-014
Through YM-95-019
2. CAR Continuation Sheets
and Instructions

YMP-5

9412300225 941216
PDR WASTE PDR
WM-11

102.7
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Les E. Shephard

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cc w/encls:

J. H. Hines, OQD, AL

~~J. G. Sprank~~, NRC, Washington, DC

T. L. Badredine, M&O/TRW, Las Vegas, NV

S. W. Zimmerman, NWPO, Carson City, NV

R. R. Richards, SNL, Albuquerque, NM, M/S 1333

M. C. Brady, SNL, Las Vegas, NV

cc w/o encls:

W. L. Belke, NRC, Las Vegas, NV

D. G. Sult, YMQAD/QATSS, Las Vegas, NV

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8 CAR NO.: YM-95-014
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CORRECTIVE ACTION REQUEST

1 Controlling Document QAIP 1-5, Revision 07	2 Related Report No. YM-ARP-95-03
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3 Responsible Organization SNL	4 Discussed With M. Riggins/D. Kessel
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5 Requirement:

Section 4.1, Step 1 states, "Prepare a draft WA that includes or references, by number the following element. Enter "NA" for any element that is not applicable. Obtain the document identifier for the document control staff."

Section 4.1, Step 1, 9) states, "Scope of work, objectives, and primary tasks."

Section 4.3, Step 2 states, "Prepare and issue revisions, initiated by either the customer or Supplier when necessary, in the same manner as the original WA (Section 4.1 and 4.2)."

Section 4.1, Step 3, and Note states in part, "Review the draft WA.
"Note: Technical review criteria include technical adequacy;..."

6 Adverse Condition:
Contrary to the above requirements, Work Agreement (WA)-0071, did not adequately define the scope of work to meet the stated objectives.

Examples:

1) Tests to determine the bearing capacity and stand-up time were not identified or performed under saturated conditions. Saturated conditions represent the worst case ground conditions that could be encountered.

Discussion:

The objectives of this study were to provide geoengineering characterization of nonlithified tuffs that will be encountered by the North Ramp in the area of the Bow Ridge Fault. The purpose of the characterization is the following:

9 Does a Significant Condition Adverse to Quality exist? Yes ___ No <u>X</u> If Yes, Check One: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E	10 Does a stop work condition exist? Yes ___ No <u>X</u> ; If Yes - Attach copy of SWO If Yes, Check One: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	13 Response Due Date: 20 Working Days From Issuance
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11 Required Actions: Remedial Extent of Deficiency Preclude Recurrence Root Cause Determination

12 Recommended Actions:
Perform the referenced tests under saturated conditions and in a timely manner so the results can be used to help assess the bearing capacity and stand-up time of the nonlithified tuff in the area of the Bow Ridge Fault. Another option would be to contact the design group and constructors to determine whether the designers and constructors consider a saturated cohesionless soil condition a problem for the effective operation and advancement of the TBM. If they do

7 Initiator William Sublette <i>W.P. Sublette</i> 12/15/94	14 Issuance Approved by: <i>[Signature]</i> QADD <i>[Signature]</i> Date 12-15-94
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15 Response Accepted QAR _____ Date _____	16 Response Accepted QADD _____ Date _____
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17 Amended Response Accepted QAR _____ Date _____	18 Amended Response Accepted QADD _____ Date _____
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19 Corrective Actions Verified QAR _____ Date _____	20 Closure Approved by: QADD _____ Date _____
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6 Adverse Condition (continued)

Determine if the nonlithified tuffs have sufficient bearing capacity to allow the TBM to maintain tunnel grade and alignment.

Determine if the nonlithified tuffs have sufficient stand-up time and cohesion to prevent material from running through gaps in the TBM shield.

It is apparent from Tabes 5-1 and 5-2 that portions of some stratigraphic units appear to be saturated. The in-situ unsaturated Bearing Capacity and Stand-up Time tests showed that the cohesionless soil exhibited some form of cohesion, however, it is not known if the cohesion is due to slight cementation or due to apparent cohesion (capillary suction in a partially saturated soil). This question could have been answered if both of these tests had been performed under saturated conditions. This is a key test and the results would have contributed to the decision process regarding how to proceed through the nonlithified tuffs in the area of the Bow Ridge Fault.

Additionally, Memorandum TWS-EES-13-LV-10-93-16, Kalia to Simecka, dated 10/29/94 (Page 3) identified an action item to characterize "cohesionless materials" was not completed for saturated conditions.

- 2) Grouting tests were not identified or performed.

Discussion:

The October 25, 1993 Technical Criteria letter from Shephard to Dyer stated that "Grouting tests will be conducted by a grouting subcontractor to be identified (Procurement by SNL). Grouting injection tests will be conducted during a single mobilization of the subcontractor and will include tests in up to two of the NRG-2 holes. Site support requirements are described in the description of the drilling program." No in-situ grout testing was noted or discussed in SLTR94-0001.

Furthermore, WA-0071 was not revised to incorporate specific study objectives as identified in Technical Criteria letter, Shephard to Dyer, dated 10/25/93.

13 Recommended Action(s) (continued)

consider it a problem then the next question to ask them is whether they need to know the degree of apparent cohesion versus inherent cohesion within this partially saturated cohesionless silty sand that was studied in the NRT-1 trench. It must be clearly explained to them that if most of the cohesion in this soil is due to apparent cohesion, then the bearing capacity and stand-up time will be greatly reduced under saturated condition. If the designers and constructors do not think they need this information for saturated conditions, then it is suggested that this be clearly documented. It is also recommended that the review process be evaluated for adequacy and that the impacts that this adverse conditions has on design or other studies be evaluated.

Evaluate the impacts that will result due to the fact that no in-situ grout testing was performed.

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GUIDELINES FOR ROOT CAUSE DETERMINATION

When it is established that an investigation to determine root cause is required, the following guidelines may assist in the determination:

- 1) Clarify the specific condition. Pertinent clarifying questions must be asked and answered as accurately as possible.
 - a) What happened?
 - b) Where did the condition occur?
 - c) When did the condition occur?
 - d) What was the extent of the condition?
 - e) Who was involved?
 - f) In what manner did it happen?
 - g) What reasons are given by knowledgeable personnel for why it happened?

- 2) Obtain information related to the identified condition.
 - a) Investigate, in detail, the specific condition adverse to quality.
 - b) Interview personnel.
 - c) Review pertinent documents.
 - d) Use quality tools (cause & effect diagrams, flowcharting, Pareto analysis, comparative analysis, etc.).
 - e) Identify and collect data needed to get to the root cause.

- 3) Most root causes fall into one or more of the following generic categories. Specific review of these areas may be useful in arriving at cause determination:
 - a) Procedures
 - b) Personnel
 - c) Management systems
 - d) Supervision
 - e) Training
 - f) Communications
 - g) Scientific investigation/design methods
 - h) Human factors
 - i) Reliability considerations
 - j) Miscellaneous or multiple areas

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In order to develop the CAR response, perform investigative action (if required in block 11 of the CAR) to determine the extent of the deficiency and to identify root cause. Next, determine the actions required to correct the adverse condition. These actions include remedial action, and in the case of CARs that identify significant conditions adverse to quality, corrective action to preclude recurrence. A review of the recommended actions (if any) provided in block 12 of the CAR may assist in this determination. The response must include the following information:

1. Corrective Action Response for CAR # _____
 - A. Remedial Action - Describe actions required to correct the specific conditions noted. (Required for all CARs)
 - B. Extent of the Deficiency - Describe the investigative actions performed to determine the extent of the condition and the results of the determination. (Required for all Significant Conditions Adverse to Quality or for any Condition Adverse to Quality if requested by OQA)
 - C. Root Cause Determination - Identify the root cause of the condition as determined through investigative action. (Required for all Significant Conditions Adverse to Quality or for any Condition Adverse to Quality if requested by OQA)
 - D. Corrective Action to Preclude Recurrence - Identify the actions required to address the root cause of the condition in order to preclude recurrence. (Required for all Significant Conditions Adverse to Quality or for any Condition Adverse to Quality if requested by OQA)
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.

If it becomes apparent that any of the corrective action due dates cannot be met, a written request for extension must be provided to the identified CAR Coordinator. This request must include justification for the delay and must be provided to the CAR Coordinator prior to the due date.

3. The response must include the dated signature of the Responsible Individual.

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8 CAR NO.: YM-95-015
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CORRECTIVE ACTION REQUEST

1 Controlling Document QAIP 6-3, Revision 02, QAIP 20-2, Revision 00	2 Related Report No. YM-ARP-95-03
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3 Responsible Organization SNL	4 Discussed With M. Riggins/ D. Kessel
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5 Requirement:

QAIP 6-3, Section 5.2, Step 1 states, (Reviewers) "Shall conduct the review in accordance with specified criteria and shall document comments on the DRC form."

Section 3.1, states in part, "Technical Review:", "Technical reviews are in-depth critical reviews, analyses, and evaluations of documents, material, or data that require technical verification and/or validation for applicability, correctness, adequacy, and completeness."

QAIP 20-2, Section 4.1, third bullet, 4. states, "A description of the work performed and results obtained, names of individuals performing the work, and dated initials or signature, as appropriate, of individuals making the entries."

6 Adverse Condition:

Contrary to the above requirement, a technical review of SLTR94-0001 did not identify the following deficient conditions:

- The values for displacement (P), pressure (q), and modulus (E) for Test #1239 on page 5-22 of SLTR94-0001 are not consistent with these same values on page #4267 of the Scientific Notebook. It was determined that the values "P", "q", and "E" in the SLTR document are in error for Test #1239. The correct values on page #4267 of the Scientific Notebook are recalculated checking analysis values, whereas, the erroneous values in the SLTR are from the original calculations which are not provided in the Scientific Notebook.
- SLTR94-001, Page 5-3, Figure 5.1, and Page 5-4, Section 5.2.1: The Standard Penetration Test (SPT) blow count data presented in Figure 5.1, was not corrected for overburden pressures and there is no documentation of that fact on this figure. The SLTR does state on Page 5-4 that "the SPT values are not corrected for overburden pressure", however, this same statement needs to be made on Figure 5.1 where the SPT blow count data is presented. This

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11 Required Actions: Remedial Extent of Deficiency Preclude Recurrence Root Cause Determination

12 Recommended Actions:

- Correct all deficiencies identified in the SLTR94-0001.
- Evaluate the adequacy of the review process for SLTR's.
- Evaluate the impact that these deficient conditions will have on the designs or studies supported by this work.

7 Initiator William Sublette <i>WR Sublette</i> 12/13/94	14 Issuance Approved by <i>[Signature]</i> QADD <i>[Signature]</i> Date 12-15-94
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6 Adverse Condition (continued)

requirement is necessary so that a user will not unwittingly use this data without realizing that it has not been corrected for overburden pressure. In many instances end users will not read the entire document to determine if there are any qualifying factors associated with the data they wish to use, instead they will only look at the figure or table that the data is presented on.

The PI stated that the SPT blow count data was not corrected for overburden pressure since this was not used to estimate soil properties, however, it was used to help identify stratigraphic continuity. If this data is used for establishing stratigraphic continuity, then it is important that this data is adjusted to account for variations in overburden pressures. Generally the SPT blow count data is used as a preliminary exploration method for identifying areas that may require further exploration and characterization. With this in mind, the question should be asked why the SPT blow count data shown on Figure 5.1 for Unit 4 from boreholes NRG-2D and NRG-2C is noticeably less than most other units penetrated. The next step is to look at the moisture contents in Table 5-2 for these same boreholes in Unit 4. It becomes apparent that the moisture contents are high and a further calculation will show that some of these areas in Unit 4 will probably be 100% saturated and stand-up time and bearing capacity could be adversely impacted.

This demonstrates the exploration and collaboration capabilities of the SPT and why this type of data should not be taken lightly and every effort made to provide the most representative SPT blow count data. Correcting for overburden pressure will provide more representative SPT blow count data.

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In order to develop the CAR response, perform investigative action (if required in block 11 of the CAR) to determine the extent of the deficiency and to identify root cause. Next, determine the actions required to correct the adverse condition. These actions include remedial action, and in the case of CARs that identify significant conditions adverse to quality, corrective action to preclude recurrence. A review of the recommended actions (if any) provided in block 12 of the CAR may assist in this determination. The response must include the following information:

1. Corrective Action Response for CAR # _____
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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.

If it becomes apparent that any of the corrective action due dates cannot be met, a written request for extension must be provided to the identified CAR Coordinator. This request must include justification for the delay and must be provided to the CAR Coordinator prior to the due date.

3. The response must include the dated signature of the Responsible Individual.

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CORRECTIVE ACTION REQUEST

1 Controlling Document QAIP 20-2, Revision 00, QAIP 6-3, Revision 02	2 Related Report No. YM-ARP-95-03
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3 Responsible Organization SNL	4 Discussed With M. Riggins/D. Kessel
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5 Requirement:

QAIP 20-2, Section 4.1, 4. states, "A description of the work performed and results obtained, names of individuals performing the work, and dated initials or signature, as appropriate, of individuals making the entries."

QAIP 6-3, Section 5.2, Step 1, states, (Reviewers) "Shall conduct the review in accordance with specified criteria and shall document comments on the DRC form."

Section 3.1, states in part, "Technical Review:", "Technical reviews are in-depth critical analyses, and evaluation of documents, material, or data that require technical verification and/or validation for applicability, correctness, adequacy, and completeness."

6 Adverse Condition:

Contrary to the above requirement, a technical review of the Scientific Notebook "Characterization of Nonlithified Tuffs, Rainier Mesa and Pre-Rainier Mesa on the West Side of Exile Hill", did not identify the following deficient conditions:

1. Scientific Notebook, Pages 4266-4269: The original calculations for deformation modulus are missing from the Scientific Notebook. However, the results from the original calculations were reported in the SLTR94-0001, Revision 7, Page 5-22, Table 5-8
2. Scientific Notebook, Section 4.4 and the SLTR94-0001, Revision 7, Pages 5-18 and 5-19, Table 5-7: The calculations for cohesion " C_{ug} " as represented in Table 5-7 in the SLTR are not presented in Section 4.4 of the Scientific Notebook.

9 Does a Significant Condition Adverse to Quality exist? Yes ___ No <u>X</u> If Yes, Check One: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E	10 Does a stop work condition exist? Yes ___ No <u>X</u> ; If Yes - Attach copy of SWO If Yes, Check One: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	13 Response Due Date: 20 Working Days From Issuance
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11 Required Actions: Remedial Extent of Deficiency Preclude Recurrence Root Cause Determination

12 Recommended Actions:

1. Correct all deficiencies identified and evaluate the extent of documentation problems in the Scientific Notebook.
2. Determine if similar deficiencies exist in other Scientific Notebooks.
3. Evaluate the adequacy of the review process for Scientific Notebooks.

7 Initiator William Sublette <i>W Sublette</i>	14 Issuance Approved by QADD <i>Robert N. ...</i> Date <i>12-15-94</i>
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17 Amended Response Accepted QAR _____ Date _____	18 Amended Response Accepted QADD _____ Date _____
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13 Recommended Action(s) (continued)

4. Evaluate the impact that these deficient conditions have on the designs or studies supported by this work.

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 - C. Root Cause Determination - Identify the root cause of the condition as determined through investigative action. (Required for all Significant Conditions Adverse to Quality or for any Condition Adverse to Quality if requested by OQA)
 - D. Corrective Action to Preclude Recurrence - Identify the actions required to address the root cause of the condition in order to preclude recurrence. (Required for all Significant Conditions Adverse to Quality or for any Condition Adverse to Quality if requested by OQA)
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3. The response must include the dated signature of the Responsible Individual.

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CORRECTIVE ACTION REQUEST

1 Controlling Document QARD, Revision 0, QAIP 1-5, Revision 07, QAIP 6-3, Revision 02		2 Related Report No. YM-ARP-95-03	
3 Responsible Organization SNL		4 Discussed With M. Riggins/D. Kessel	
5 Requirement: QARD, Sections 2.2.9, A., states, "Review criteria shall be established before performing the review. These criteria shall consider applicability, correctness, technical adequacy, completeness, accuracy, and compliance with established requirements." QAIP 6-3, Section 5.2, Step 1, states, (Reviewers) "Shall conduct the review in accordance with specified criteria and shall document comments on the DRC form." Section 3.1, states in part, "Technical Review:", "Technical reviews are in-depth critical reviews, analyses, and evaluations of documents, material, or data that require technical verification and/or validation for applicability, correctness, adequacy, and completeness."			
6 Adverse Condition: Contrary to the above requirements, a technical review of the Scientific Notebook utilized for this study did not identify the following deficient conditions: 1) The procedure used to perform the in-situ plate load bearing capacity test was not consistent with the referenced ASTM procedure; 2) The ASTM procedure used for performing the in-situ plate load bearing capacity test was not the most appropriate ASTM procedure for application in this study. Discussion: Documentation in the Scientific Notebook "Characterization of Nonlithified Tuffs, Rainier Mesa and Pre-Rainier Mesa on the West Side of Exile Hill", Pages 4277-4290, does not show that the testing procedure followed the referenced procedure, "Standard Test Method for Nonrepetitive Static Plate Load Tests of Soils and Flexible Pavement Components, for Use in Evaluation and			
9 Does a Significant Condition Adverse to Quality exist? Yes ___ No <u>X</u> If Yes, Check One: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E		10 Does a stop work condition exist? Yes ___ No <u>X</u> ; If Yes - Attach copy of SWO If Yes, Check One: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	
13 Response Due Date: 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: 1. Correct all deficiencies identified and evaluate the impacts that this adverse condition will have on the designs or studies that this work supports. 2. Evaluate the adequacy of the review process.			
7 Initiator William Sublette <i>W Sublette</i>		14 Issuance Approved by: <i>W Sublette</i> Date <u>12-15-94</u>	
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5 Requirements (continued)

QAIP 1-5, Section 4.1, Step 1, 2., b., states, "If a Scientific Notebook (SN) is to be used without a governing TP, then the elements listed below shall be addressed, as applicable to the situation, in the WA, and the SN shall be prepared in accordance with Procedure 20-2:

- b. Identification of applicable standards and criteria.

6 Adverse Condition (continued)

Design of Airport and Highway Pavements" (ASTM D-1196-87). This procedure is identified as a nonrepetitive test procedure, however, as noted on pages 4286-4290 the test was performed in a cyclic loading and unloading repetitive process. Contributing further to the problem is that the most appropriate ASTM test procedure, for the loading condition being addressed, was not used. ASTM D 1194-72, "Standard Test Method for Bearing Capacity of Soil for Static Load and Spread Footings", would have been a more appropriate test procedure for use in meeting the objectives of the study. It should also be noted that ASTM D 1194-72 states that if saturated conditions are expected, then it is recommended that prior to testing the soil be saturated to a depth not less than twice the diameter of the largest bearing plate. Another problem noted on pages 4277-4290 was that there is inadequate documentation showing that plates were properly set as per the referenced procedure (Section 4.4 in ASTM D 1196-87).

13 Recommended Action(s) (continued)

3. Use the appropriate procedure in all further testing.

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INSTRUCTIONS FOR CORRECTIVE ACTION

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 - B. **Extent of the Deficiency - Describe the investigative actions performed to determine the extent of the condition and the results of the determination. (Required for all Significant Conditions Adverse to Quality or for any Condition Adverse to Quality if requested by OQA)**
 - C. **Root Cause Determination - Identify the root cause of the condition as determined through investigative action. (Required for all Significant Conditions Adverse to Quality or for any Condition Adverse to Quality if requested by OQA)**
 - D. **Corrective Action to Preclude Recurrence - Identify the actions required to address the root cause of the condition in order to preclude recurrence. (Required for all Significant Conditions Adverse to Quality or for any Condition Adverse to Quality if requested by OQA)**
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.**

If it becomes apparent that any of the corrective action due dates cannot be met, a written request for extension must be provided to the identified CAR Coordinator. This request must include justification for the delay and must be provided to the CAR Coordinator prior to the due date.

3. **The response must include the dated signature of the Responsible Individual.**

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

⁸ CAR NO. _____
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CORRECTIVE ACTION REQUEST (CONTINUATION PAGE)

**OFFICE OF CIVILIAN
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U.S. DEPARTMENT OF ENERGY
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8 CAR NO.: YM-95-018
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CORRECTIVE ACTION REQUEST

1 Controlling Document YAP-SIII.3Q, Revision 0	2 Related Report No. YM-ARP-95-03
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3 Responsible Organization SNL	4 Discussed With John Friend/Dave Kessel
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5 Requirement:
Section 5.1.1 b) " submits the DPS and a TDIF or the information required to create a TDIF, to the appropriate PDA in accordance with a YMPO approved schedule;"

6 Adverse Condition:
Contrary to the above requirement, acquired data sets in Appendix C for "Soils Laboratory and In Situ Test Data" (See letter NTS: Q&I:MLL:009-94 Patel to Kessel), were included in SLTR94-001 without having a YMPO approved schedule for submitting the DPS (Data Package Segment) and a TDIF (Technical Data Information Form) or the information required to create a TDIF.

Example:
The acquired data sets in Appendix C were transferred to Kessel on October 23, 1993. This data has not been submitted to the PDA (Participant Data Archive) and no schedule existed for submitting the data.

9 Does a Significant Condition Adverse to Quality exist? Yes ___ No <u>X</u> If Yes, Check One: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E	10 Does a stop work condition exist? Yes ___ No <u>X</u> ; If Yes - Attach copy of SWO If Yes, Check One: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	13 Response Due Date: 20 Working Days From Issuance
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11 Required Actions: Remedial Extent of Deficiency Preclude Recurrence Root Cause Determination

12 Recommended Actions:

7 Initiator John Matras <i>John R Matras 12/13/94</i>	14 Issuance Approved by: <i>[Signature]</i> QADD <i>[Signature]</i> Date <i>12-15-94</i>
--	---

15 Response Accepted QAR _____ Date _____	16 Response Accepted QADD _____ Date _____
--	---

17 Amended Response Accepted QAR _____ Date _____	18 Amended Response Accepted QADD _____ Date _____
--	---

19 Corrective Actions Verified QAR _____ Date _____	20 Closure Approved by: QADD _____ Date _____
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8 CAR NO.: YM-95-019
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CORRECTIVE ACTION REQUEST

1 Controlling Document YAP-SIII.3Q, Revision 0		2 Related Report No. YM-ARP-95-03	
3 Responsible Organization SNL		4 Discussed With John Friend/Dave Kessel	
5 Requirement: Exhibit YAP-SIII.3Q.1, Instructions for Preparation of Yucca Mountain Site Characterization Project Technical Data Information Form (TDIF), Part 1, "Is Data Qualified?" Note 2) Qualified and unqualified data shall not be mixed under the same TDIF.			
6 Adverse Condition: Contrary to Note 2, qualified and unqualified data were mixed under TDIF #303453, Data Tracking Number SNF29041993002.026, associated with SLTR94-001. The unqualified data addressed soil suction developed data.			
9 Does a Significant Condition Adverse to Quality exist? Yes ___ No <u>X</u> If Yes, Check One: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E		10 Does a stop work condition exist? Yes ___ No <u>X</u> ; If Yes - Attach copy of SWO If Yes, Check One: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	
13 Response Due Date: 20 Working Days From Issuance			
11 Required Actions: <input checked="" type="checkbox"/> Remedial <input type="checkbox"/> Extent of Deficiency <input checked="" type="checkbox"/> Preclude Recurrence <input type="checkbox"/> Root Cause Determination			
12 Recommended Actions:			
7 Initiator John Matras <i>John K Matras 12/6/94</i>		14 Issuance Approved By: <i>[Signature]</i> Date <u>12-15-94</u>	
15 Response Accepted QAR _____ Date _____		16 Response Accepted QADD _____ Date _____	
17 Amended Response Accepted QAR _____ Date _____		18 Amended Response Accepted QADD _____ Date _____	
19 Corrective Actions Verified QAR _____ Date _____		20 Closure Approved by: QADD _____ Date _____	

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