

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT  
YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION  
QUALITY ASSURANCE SURVEILLANCE REPORT OF  
UNITED STATES BUREAU OF RECLAMATION  
SURVEILLANCE YMP-SR-93-014  
CONDUCTED FEBRUARY 23, 1993

ACTIVITIES SURVEILLED:

GEOLOGIC MAPPING OF THE NORTH RAMP PORTAL OF THE  
EXPLORATORY STUDIES FACILITY

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## 1.0 EXECUTIVE SUMMARY

This report contains the results of the Office of Civilian Radioactive Waste Management (OCRWM) Quality Assurance (QA) Surveillance YMP-SR-93-014 of the United States Bureau of Reclamation (USBR) geologic mapping activities. This surveillance was conducted at the North Ramp Portal of the Exploratory Studies Facility (ESF) at the Nevada Test Site (NTS) on February 23, 1993 with follow-up through February 26, 1993. The surveillance was conducted to determine the effectiveness of implementation of technical procedures for completion of geological mapping activities. The implementation of the technical procedures listed in Section 2.0 of this report was considered satisfactory. No Corrective Action Requests were issued as a result of this surveillance.

## 2.0 SCOPE

This surveillance evaluated the effectiveness of implementation by the USBR of United States Geological Survey (USGS) technical procedures being utilized to conduct geological mapping of rock exposures and associated discontinuities at the North Ramp Portal, No. 1 (NRP-1) of the ESF. The following USGS technical procedures and YMPO procedure were being implemented:

NWM-USGS-GP-01, Revision 2, "Geologic Mapping"

NWM-USGS-GP-12, Revision 1, "Mapping Fractures on Pavements, Outcrops and Along Traverses"

Administrative Procedure (AP)-6.26Q, Revision 0, "Submission and Documentation of Non-Borehole Samples to the Sample Management Facility"

## 3.0 SURVEILLANCE TEAM

Richard L. Weeks, Surveillance Team Leader, Yucca Mountain Quality Assurance Division (YMQAD), Las Vegas, Nevada

## 4.0 PERSONNEL CONTACTED DURING THE SURVEILLANCE

Steve Beason, Principle Investigator (PI), USBR

Paul Burger, Civil Engineer, USBR

Michael F. Fahy, Principle Investigator, USBR

Thomas H. Chaney, Quality Assurance Manager, USGS

Christopher Lewis, Curator, Sample Management Facility (SMF), Science Applications International Corporation/Technical and Management Support Services

## 5.0 SURVEILLANCE RESULTS

Marked-up copies of the appropriate revisions of the USGS technical procedures were utilized for conduct of this surveillance.

The activities surveilled support study plan activities 8.3.1.4.2.2.2 and 8.3.1.4.2.2.4. Test Planning Package TPP 92-01 provides the process for control for planning and implementation of these scientific investigation activities.

The PIs identified above were observed mapping geological features of NRP-1 in accordance with copies of current revisions of technical procedures GP-01 and GP-12. Field notebooks were examined to ensure that required information was recorded. The following specific requirements were evaluated for procedural compliance:

### Compliance to GP-01:

Field notebook contained required, minimum information as stated in Paragraph 4.2.6. The initial entry was signed and dated by the PI, S. Beason.

Since this activity is in the early stages of implementation final results and a summary of the outcome of the mapping is not available. Additionally, a technical review of the field notebook has not yet been completed.

Four samples were gathered while mapping and are documented on pages 4 and 5 of S. Beason's field notebook. The samples were obtained by a Sample Management Facility employee, under the direct supervision of S. Beason. The samples were processed in accordance with AP-6.26Q, Revision 0. It was verified that a Sample Collection Report, which is required by AP-6.26Q, was completed for these samples. The samples were labeled as follows:

|       |             |
|-------|-------------|
| NRP-1 | SPC00009714 |
| NRP-1 | SPC00009715 |
| NRP-1 | SPC00009716 |
| NRP-1 | SPC00009717 |

### Compliance to GP-12:

Information required for processing of data gathered, as stated in Paragraph 7.0, was recorded in the field notebook.

Evaluation of Section 4.2.1.6 indicated that discontinuities be uniquely identified; however, the (J) or (F) designation has not been applied because this distinction will not be made until additional data is collected and analyzed. The designations were not applicable at this time.

Evaluation of Section 4.2.1.7 indicated that all appropriate attributes were addressed.

As described in Paragraph 4.6, data was entered in tabular form on the appropriate form identified in GP-12 as Attachment 2 (Recording Fracture Characteristics on Pavements or Outcrops).

## 6.0 RECOMMENDATIONS

- 6.1 It is recommended that field notebooks be uniquely identified so as to better facilitate traceability.