



CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES QUALITY ASSURANCE SURVEILLANCE REPORT

PROJECT NO.: 20.06002.01.031

REPORT NO.: 2004-01

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SURVEILLANCE SCOPE: Geochemistry activities: June 2003-January 2004

REFERENCE DOCUMENTS: QAP-001, Scientific Notebook Control and QAP-004, Surveillance Control, TOP-018 Development and Control of Scientific and Engineering Software, and QAP-002, Review of CNWRA Documents, Reports and Papers:.

STARTING DATE: 01/13/04

ENDING DATE: 01/21/04

QA REPRESENTATIVE: Mark R. Ehnstrom

PERSONS CONDUCTING TEST/EXAM/ACTIVITY: English Percy, Paul Bertetti, Bradley Werling, Scott Painter, Lauren Browning, and J Prikyr

SATISFACTORY FINDINGS: Activities associated with the geochemistry sub-element were observed to be in compliance with associated controlling procedures. Surveillance activities concentrated on field sample retrieval and storage, software control, laboratory testing activities, and deliverable reviews. These areas are discussed in the following paragraphs:

Field sample retrieval and storage:

Surveillance was performed on the the sample retrieval and control process and the laboratory work performed on alluvium and water samples. Scientific Notebooks (SN) 333 and 628 document the process of retrieving samples and performing preliminary testing on the alluvium samples. The alluvium samples were identified in the computer based CNWRA Sample Custody/Control Log. This computer based system, recently developed by the geochemistry group, easily presents information important to each sample. Attachment A shows a sample record generated from this system. Scientific Notebook 610 documents the retrieval and testing performed on the water samples. The water samples were also identified in the custody log.

Laboratory Testing:

Measuring and test equipment and standards were reviewed for both the alluvium and water samples. The test equipment and standards were found to be within calibration and expiration time intervals. During the review of SN 628 it was recommended that preliminary weight results recorded on December 13, 2003 identify the balance serial number used. Also in SN 628, an entry referenced the balance type and not its serial number. These were pointed out to the Principal Investigator and additional information was recorded in the SN. Standards used during testing of the water samples were also reviewed.

The review found two incorrect dates of analysis recorded on two Certificates of Analysis from the supplier Hach Company. Laboratory personnel notified the supplier (Attachment B) to correct the dates. Additionally, one Certificate of Analysis was not recorded in the log book. Laboratory personnel accessed the suppliers web site and was able to download the missing Certificate of Analysis.

Software Control:

During the surveillance the QA software package for Multiflo Version 2.0 was reviewed. This code will be a milestone delivery to the NRC in March 2004. The QA software package contains the documents developed for compliance to TOP-018, Development and Control of Scientific and Engineering Software.

The Software Development Plan (SDP) for Multiflo Version 2.0 was written in January 2000. Since that time a number of changes have occurred in both personnel and schedule, but none affecting the technical approach. Discussions were held with the Element Manager and the Principal Investigator, with the final decision by the Element Manager not to revise the SDP.

Document Review:

The following reports were reviewed and were compliant to requirements contained in procedure QAP-002, Review of CNWRA Documents, Reports and Papers:

- Mineralogy and Geochemistry of Well Cuttings from Selected Early Warning Drilling Project Wells in Fortymile Wash
- Assessment of the Potential Effects of Colloidal Radionuclide Transport on Nuclear Waste Repository Performance

- Mineralogy and Geochemistry of the Alluvium in the Fortymile Wash Region South of Yucca Mountain, Nevada
- NRC Performance Confirmation Oversight White Paper

During the surveillance Scientific Notebooks 037-2, 456, 517, 554, and 559 were identified as not being recently used and are in the process of being submitted to QA for retention.

UNSATISFACTORY FINDINGS: None

NONCONFORMANCE REPORT NO.: N/A

CORRECTIVE ACTION REQUEST NO.: N/A

ATTACHMENTS:

Attachment A shows a sample record generated by the Sample Custody/Control System.

Attachment B is a copy of the e-mail sent by laboratory personnel notifying the supplier to correct the dates on the Certificates of Analysis.

RECOMMENDATIONS/ACTIONS:

- A review of the Certificates of Analysis supplied by Hach should be performed to assure they identify correct dates of analysis.

APPROVED: 
CENTER DIRECTOR OF QUALITY ASSURANCE

DATE: 1/21/04

DISTRIBUTION:

ORIGINAL -

QA Records
CNWRA QA DIRECTOR
ORIGINATOR
PRINCIPAL INVESTIGATOR: P. Bertetti,
B. Werling, J. Prikryl
ELEMENT MANAGER: E. Percy

Center For Nuclear Waste Regulatory Analyses

Sample Custody/Control Record

Sample Identification (Mandatory): NC-EWDP-19PB-350.8-352.4

Description of Sample (Mandatory):

Unconsolidated alluvium collected during sonic coring of well 19PB. Sample disaggregated and dried before collection.

Date Of Collection (Mandatory): 12/2/2003

Amount of Sample Remaining: 725.3 g

Reference Top or Scientific Notebook Entry:

333/064 and 628/006

Sample Storage Location (Mandatory):

Collection Site (Reference Maps or Field Notes As Required):

Nye County, NV well 19PB

Person(s) Who Collected Sample(s):

Bertetti

Entry By: FPB

Date Of Initial Log Entry (Mandatory): 12/17/2003

Other:

SC notation on some samples refers to sonic coring. Sample saved by Nye County staff on Dec 2, 2003 and split by Bertetti on Dec 4, 2003

Status: On Hand

Status Date: 12/17/2003

*attachment B***Mark Ehnstrom**

From: Bradley Werling [bwerling@cnwra.swri.edu]
Sent: Wednesday, January 14, 2004 5:04 PM
To: COASupport@hach.com
Cc: Mark R. Ehnstrom
Subject: Inaccurate date of analysis on COA

COA Support,

I would like to inform you that during an internal QA audit, we discovered that the DATE OF ANALYSIS on the Certificate of Analysis for two products was listed as 1/1/1900. We did not know if you were aware of this error. We would be interested in obtaining corrected COAs for these two products:
Singlet pH Buffer Solution catalog # 27701-51 lot # 3207 and
Singlet pH Buffer Solution catalog # 27702-51 lot # 2298.

Please contact me if you have any questions.

Thank you,

Bradley Werling
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(210) 522-5184 (fax)

1/15/2004