HLWYM HEmails

From: David Pickett
Sent: Monday, May 06, 2002 11:31 AM
To: Paul Bertetti
Cc: Roberto Pabalan; English Pearcy; David Turner
Subject: RE: DOE letter report - microspheres as analogs for colloids

Follow Up Flag: Follow up
Flag Status: Flagged

Paul,

I took a preliminary look at this letter report last week in Rockville, along with Bill Dam. Two potential problems:

1. Neglect of small colloid size range.

2. The alluvium lab tests suggest the microspheres are _not_ conservative with respect to 100 nm silica colloids. (They were relatively conservative in fractured tuff lab experiments.) They propose to handle this by adjusting transport parameters derived from alluvium tests. This may also have influenced them in adding Sm-152-doped natural colloids to the ATC plans (see the newly arrived test plan report).

We'll take a closer look and decide if it's worth pursuing. By the way, we hope to have a telecon with DOE this week on the status of colloid agreements. I believe this (RT.3.08) is the only one to be addressed this FY. I'll let you and Bobby know about the schedule for this telecon.

I'll pass on more on colloids from my staff exchange later.

David

-----Original Message-----
From: Paul Bertetti [mailto:pbertetti@cnwra.swri.edu]
Sent: Monday, April 29, 2002 2:04 PM
To: David Pickett; David Turner
Cc: Roberto Pabalan; James Winterle; English Pearcy; Bradley Werling
Subject: DOE letter report - microspheres as analogs for colloids

RT folks and other (potentially) interested parties,

I have attached a copy of a DOE letter report that is intended to address RT agreement 3.08. The letter report has been submitted in lieu of the C-wells AMR as stated in the original agreement text. Use of the letter report format by DOE to address RT 3.08 was agreed upon in recent KTI agreement discussions between DOE and NRC.

The cover letter for the report states (in part):

"This report presents recent results of laboratory experiments and analyses to address the suitability of using carboxylate-modified latex (CML) microspheres as analogs for naturally occurring inorganic colloids. The CML microspheres were used as colloid tracers in the field tests at the C-Wells complex, and are being used at the Alluvial Testing Complex. Laboratory experiments were conducted using CML microspheres and silica colloids in columns filed with both volcanic tuff and alluvium under saturated conditions. Results from the experiments indicate that CML microspheres would be conservative analogs for silica colloids in fractured tuff; and that for

saturated alluvium, colloid transport parameters derived from field tests need to be adjusted before being used in parameter validation of saturated zone colloid transport models."

I do not have a tasking or other schedule for review of the report. I would anticipate that once it is logged into Jim Anderson's system we would have 60-90 days to review the report and produce a response letter documenting acceptance or outlining any RAI. I will provide more information on the review schedule as soon as I hear more from John Bradbury. If you have any questions, please let me know of them.

Paul

Hearing Identifier: HLW_YuccaMountain_Hold_EX
Email Number: 665

Mail Envelope Properties (dpickett@cnwra.swri.edu20020506113100)

Subject: RE: DOE letter report - microspheres as analogs for colloids
Sent Date: 5/6/2002 11:31:05 AM
Received Date: 5/6/2002 11:31:00 AM
From: David Pickett

Created By: dpickett@cnwra.swri.edu

Recipients:
"Roberto Pabalan" <rpabalan@cnwra.swri.edu>
Tracking Status: None
"English Pearcy" <epearcy@cnwra.swri.edu>
Tracking Status: None
"David Turner" <dturner@cnwra.swri.edu>
Tracking Status: None
"Paul Bertetti" <pbertetti@cnwra.swri.edu>
Tracking Status: None

Post Office:

Files	**Size**	**Date & Time**
MESSAGE	2956	5/6/2002 11:31:00 AM

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received: Follow up