

Young, John, NMENV

General

From: Johansen, Mathew [mjohansen@doeal.gov]
Sent: Tuesday, August 02, 2005 11:04 AM
To: Johansen, Mathew; Young, John, NMENV; Cobrain, Dave, NMENV; Trevizo, Laurie, NMENV
Cc: 'Michael Dale (Michael Dale)'; 'katzman@lanl.gov'; 'dewart@lanl.gov'; Whitacre, Thomas; 'meverett@lanl.gov'; 'broxton@lanl.gov'
Subject: RE: Drilling update - Aug 2
Attachments: @

-w/attachment

-----Original Message-----

From: Johansen, Mathew
Sent: Tuesday, August 02, 2005 8:03 AM
To: Johansen, Mathew; 'john.young@state.nm.us'; 'dave.cobrain@state.nm.us'; 'laurie.trevizo@state.nm.us'
Cc: 'Michael Dale (Michael Dale)'; 'katzman@lanl.gov'; 'dewart@lanl.gov'; Whitacre, Thomas; 'meverett@lanl.gov'; 'broxton@lanl.gov'
Subject: RE: Drilling update - Aug 2

All,

Latest-

R-10(a)

Final well design should be complete this morning. Thanks John & Brox for working the design, particularly the time you spent over the weekend. Based on agreement on the screen length, we have the screen in the hole awaiting final filter pack design. Hole stability looks good. A borehole sample from the regional aquifer was gathered yesterday. I'll pass on results as we get them.

CDV-16-2(i)

Backfilling is complete. Development begins today.

R-24

The Core rig will move off of R-24 today.

Attached is our planned coring schedule. As you know, the core rig usually works ahead of the drill rig. The attachment serves as the 15 notice for field operations for the remaining core work.

Call with questions or concerns.

Mat
665-5046



13936

-----Original Message-----

From: Johansen, Mathew
Sent: Sunday, July 31, 2005 11:22 AM
To: Johansen, Mathew; 'john.young@state.nm.us'; 'dave.cobrain@state.nm.us'; 'laurie.trevizo@state.nm.us'
Cc: 'Michael Dale (Michael Dale)'; 'katzman@lanl.gov'; 'dewart@lanl.gov'; Whitacre, Thomas; 'meverett@lanl.gov'; 'broxton@lanl.gov'
Subject: RE: Drilling update - July 31

Dave, John, Laurie,

Here is the latest as of Sunday July 31. Some of this is verbal so could be wrong. Some of this is repeated as I doubt people are sitting at their desks this weekend reading every email.

1/13/2006

R-10(a)

The borehole water sample of the intermediate water has nitrate ~4.1 ppm, non-detect for perchlorate (IC method, MDL~ 4ppm), and non-detect for tritium (with detection level of about 16 pCi/L).

A 9-5/8" casing was installed & sealed to a depth of to approx 590' to isolate the intermediate water & stabilize the borehole that had bridged in one location, and sloughed in at the bottom.

After setting the casing, the borehole was continued to TD of ~765'. Some Totavi was encountered below the casing --which was not welcome. The Santa Fe group, particularly from ~730-765, was mushy unconsolidated sand and gravels with apparent relatively high water transmissivity.

The drill string pulled out cleanly on Friday eve.

The borehole sloughed in sometime after the string was removed and on Sat morning slough material was tagged near the expected regional water surface.

In other words, we have a problem borehole. The good news is that the loose Santa fe material is transmitting a lot of water, the bad news is that the formation is readily washing into the hole.

Saturday afternoon we redrilled the borehole and let it sit overnight. This morning it appeared stable enough to build a well. Very good news. However, borehole stability is not good. We did not run geophysics to avoid risk of disturbing the stability, and because the formation near the top of the regional aquifer looks very transmissive, so we are planning on the standard well design for a single completion well. Broxton is attempting to call John as I write this. Hopefully, Brox and John will connect and finalize the design. Well construction will begin today (Sunday) and continue tomorrow. The borehole wall is unstable, but we hope for successful construction without resorting to further cleanouts and mud rotary.

CDV-16-2(i)

Backfilling ops are completing today. It looks like a good well.

R-24

Coring is down to ~200' but proving difficult due to boulders & cobbles. Sample recovery has been poor because of the boulders & cobbles, but some retrieval has been made when a finer section is encountered. The risk of breaking off the bit in the hole increases. We will need to stop coring somewhere between 200-300 due to the risk & poor sample recovery. Drilling will be open hole down to near the regional in order to look for perched water. Near the regional, we will assess options of open hole vs.. casing advance. Because this well needs to be able to see Sr-90, we will not go to mud rotary.

Thanks. all.

Mat

-----Original Message-----

From: Johansen, Mathew

Sent: Wednesday, July 27, 2005 11:38 AM

To: 'John Young'; 'Cobrain Dave'; 'laurie.travizo@state.nm.us'

Cc: 'Michael Dale (Michael Dale)'; katzman@lanl.gov; 'dewart@lanl.gov'; Whitacre, Thomas; 'meverett@lanl.gov'; Johansen, Mathew

Subject: Drilling update - July 27

Dave, John, Laurie,

Here is the latest:

R-10(a)

Drill depth is currently ~590'. Expected regional water table ~660-670. The borehole is stopped in loose gravel. We are assessing borehole stability (there is a lot of sloughing at certain depths) to determine how best to stabilize the borehole, proceed to the regional aquifer, and to prevent cross contamination of the nitrate. Intermediate water is entering the hole at ~340' and was sampled when

the borehole was at ~390. The following screening results have been received so far. Note that these results are coming in verbally, and are screening results from borehole water samples and are therefore fairly unreliable. That said: nitrate as nitrogen ~4.1 ppm, perchlorate non-detect for IC method (<4ppb MDL). A tritium sample is at U of Miami, I should be able to send those tomorrow.

As you know, R-10(a) is on San I land and is being constructed under a special agreement with San I. San I environment staff is on site regularly, Neil is informed, etc. Please keep in mind that San I always appreciates discretion and thorough coordination when discussing their resources.

CDV-16-2(i)

Borehole TD at ~872. Water elevations stabilized indicating potential for a good well. 10' screen placed from ~850 - 860. Seal and backfill operations are proceeding.

R-24

Site prep is complete. Coring to begin today.

Tom W. is out this week and next. Please call me, or email, with any questions.

Mat

5-5046

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Remaining Core Schedule.xls (13.6KB)

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**Core Rig Antipcated Schedule
August 1-October 23, 2005**

	R-3	1-Aug	14-Aug	
	R-27	15-Aug	28-Aug	
	LaOi-7	29-Aug	11-Sep	
	LAOI-3.2a	12-Sep	25-Sep	
	LADP-5	26-Sep	9-Oct	
	R-17	10-Oct	23-Oct	