KAFB ST-10C /SS-111
Bulk Fuels Facility Spill
well development
well 106157

ENTERED

Cobrain, Dave, NMENV

From: Cobrain, Dave, NMENV
Sent: Monday, January 06, 2014 9:28 AM
To: Reuter, Stephen, NMENV; Kieling, John, NMENV; Blaine, Tom, NMENV
Subject: RE: KAFB well completion report

Steve,

We commented on the use of calculations for confined aquifers vs unconfined aquifers in our initial review of the aquifer test work plan. CB&I did not change their approach based on our comments. It sounds like CB&I's predictions of Δs are geared toward making a case for a larger radius of influence from well 106157 than is supported by the subsequent results of the step- and constant discharge tests. In addition, because the well logging methods are questionable and no water quality data was collected to monitor changes in water chemistry during well development and the step test and only very limited data was collected during the constant discharge test, we'll never know whether the higher than expected drawdowns were related to problems that were created by 22 months +/- of delay prior to development or whether the drawdowns are representative of actual subsurface conditions.

Dave

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From: Reuter, Stephen, NMENV
Sent: Monday, January 06, 2014 8:26 AM
To: Kieling, John, NMENV; Cobrain, Dave, NMENV; Blaine, Tom, NMENV
Subject: RE: KAFB well completion report

Here are some observations on the well completion report I inadvertantly left out of my last e-mail. In Appendix B, where the data analysis is presented, CBI calculates delta S for pumping rates of 150 gpm and 200 gpm to be 3.41 and 4.55 repectively. When they plot the data to predict drawdown away from the well (Figures 2-1 and 2-2)they plot delta at twice those values. It is unclear whether this was an attempt at being conservative in their predictions or a mistake.

CBI also uses a formula for calculating drawdown from specific capacity that is typically used for confined aquifers. The formula for unconfined is slightly different. I have not seen any cogent argument that suggests the aquifer at KAFB is confined.

The entire appendix may be moot since the predictions are from actual pumping rates that topped out at 27gpm. Projecting to 200 gpm from that data may be a stretch, as evidenced by the results of the step test.

Stephen G. Reuter
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From: Kieling, John, NMENV
Sent: Thursday, January 02, 2014 11:30 AM
To: Reuter, Stephen, NMENV
Subject: Automatic reply: KAFB well completion report

KAFB4847

I will be out of the office on leave from December 30 through January 3. I will be returning to the office on Monday, January 6.

During my absence please contact the following:

On Monday (Dec 30) and Friday (Jan 3) please contact Steve Pullen. Steve can be reached via e-mail at steve.pullen@state.nm.us or by phone at 505-476-6044.

On Tuesday (Dec 31) please contact Brian Holton. Brian can be reached via e-mail at brian.holton@state.nm.us or by phone at 476-6017

On Thursday (Jan 2) please contact Dave Cobrain. Dave can be reached via e-mail at dave.cobrain@state.nm.us or by phone at 505-476-6055.

Thank you and have a safe New Years holiday.

John E. Kieling
Chief
Hazardous Waste Bureau