

KAFB BFFS  
ST-106/SS 711  
Geophysical Logs Limitations  
HWB assessment

**From:** [sbrandwe](#)  
**To:** [Address, Lane, NMENV](#)  
**Subject:** [EXT] RE: LNAPL feedback  
**Date:** Friday, February 19, 2021 4:03:44 PM  
**Attachments:** [This is a comparison of Jet West.docx](#)



Lane,

I hope you get a chance to talk with the DBS&A people to show them what the story is. Anyone would have trouble ferreting out anything with so much data to plow through (and what to believe and not to believe) and no one would pick up on the noncalibration of the geophysical logs (and what that means) and why the sequence stratigraphy is bogus, and why you shouldn't trust ARCH logged holes more than geophysical logs, without some help.

I just found another interesting tidbit in my old files. The USGS logged some holes at BFF after I made a stink about the noncalibration issue (see attached).

Sid

Yes I'm looking forward to a nice weekend

KAFB5172



This is a comparison of Jet West (long and short (green and red) and USGS (short (blue)) EM logs at KAFB-106078. {The USGS truck only came with the short tool.}

In the USGS trace one can easily see the difference between fine and coarse zones, or one can talk geology like fining upward sequence between say 180 to 150 ft. depth or coarsening upward sequence from say 440 to 390. One can easily see the 250 to 300 foot depth zone ARG sediments are distinctly different from the ARG sediments above and below and the upper and lower clay are easily seen. Also, one can see that the minor leftward excursions in the 300-400 foot depth zone should not be considered as fine grained zones as the sequence stratigraphy cross sections mistakenly show.

The obvious gravel zone from 215-225 on the USGS log is called 95% gravel in the geologist log, but is hardly differentiable on the Jet West logs.

So again, the Jet West logs are usable to spot the clay zones but fall far short of being useful for geologic discussion and locating coarser and more presumably soil vapor pathway zones.

# KAFB-106078

