

FACSIMILE TRANSMISSION

United States Department of Energy - Carlsbad Area Office

ENTERED

Date: 13 Aug 97

This Fax consists of 2 pages

To: **Mr. Steve Zappe** Fax: 505/827-1544
From: Craig Snider Fax: 505/234-7430

Comments:

Steve: This fax is responding to your fax to Linda Frank-Supka in July regarding information on the SWMUs in the H-3 Drillpad. Your presumptions, as we discussed recently, are correct in that the material found in DOE/WIPP 97-2220a is the correct information concerning the H-3 drillpad wells. For you information, I am providing the following:

You requested clarification regarding the correct names of the individual borings that have been drilled on the H-3 drillpad at the WIPP. Your facsimile transmission also identified a potential conflict between information presented in the *Final Solid Waste Management Unit Assessment Report* (DOE/WIPP 97-2220), submitted to NMED on January 10, 1997, and information presented in a subsequent document entitled *Supplemental Information Requested by the New Mexico Environment Department for Solid Waste Management Units at the Waste Isolation Pilot Plant* (DOE/WIPP 97-2220a), submitted to NMED on May 1, 1997. At the H-3 drillpad, DOE/WIPP 97-2220 identified the four borings H-3a, H-3b, H-3c, and H-3d, whereas DOE/WIPP 97-2220a identified the four borings H-3b1, H-3b2, H-3b3, and H-3d. The discussion below clarifies the identity of these borings.

The documentation provided in DOE/WIPP 97-2220a is complete and correct in identifying H-3b1, H-3b2, H-3b3, and H-3d as the four borings completed at the H-3 drill pad. We note that the well naming system was informal and has varied somewhat in the 30-year period over which the H-series wells have been drilled. This variability in naming appears to have produced uncertainty concerning the most current names of the "H-3" wells during the preparation of DOE/WIPP 97-2220.

The ERDA Hydro wells (i.e., the "H-series" wells) were installed between 1970 and 1990 to characterize the geology and hydrogeology in the vicinity of the WIPP site. For many H-series drillpads, the formation in which each individual well was screened was informally denoted by a lower-case letter appended to the well name. The standard letters used and their meanings are as follows:

"a" - Magenta Member of the Rustler Formation

"b" - Culebra Member of the Rustler Formation

"c" - The lower Rustler Formation, or the contact between the Rustler Formation and the underlying Salado Formation

"d" - Upper Forty-Niner Member and/or the Dewey Lake Formation



The first well completed at the H-3 drillpad was originally drilled in 1976 to study all three of the above geologic members. Hence, this well was originally called "H-3" without an additional letter designation. The drilling of H-3 is summarized in the *Interim Data Report on the Geohydrology of the Proposed Waste Isolation Pilot Plant Site, Southeast New Mexico* (USGS WRI 79-98). The applicable sections of this document were included in DOE/WIPP 97-2220a.

The original H-3 borehole was later converted to an observation well for the Culebra Member, as well as the Magenta Member, of the Rustler Formation, and was renamed H-3b1. This conversion is described in the *WIPP Hydrology Program, Hydrologic Data Report #8* (SAND89-7056), which was also included in DOE/WIPP 97-2220a.

The H-3b2 and H-3b3 wells were drilled in 1983 for additional hydrologic testing of the Culebra Member. The drilling of H-3b2 and H-3b3 is summarized in *WIPP Hydrology Program, Hydrologic Data Report #1* (SAND85-7206). Applicable sections of this report that discuss the drilling processes and materials were also included in DOE/WIPP 97-2220a.

The fourth borehole at the H-3 complex, H-3d, was completed in 1987 to monitor and test transmissivity in the upper Forty-niner Member of the Rustler Formation and the Dewey Lake Formation. Additionally, H-3b1 was recompleted at this time as a Magenta Member well for water-level monitoring and water quality sampling. The drilling and conversion of these wells are documented in the sections of SAND89-7056 that were included in DOE/WIPP 97-2220a. Review of this documentation shows that H-3b1 was not renamed H-3a at this time, despite the fact that it was now Magenta Member well.

In conclusion, the H-3 drillpad documentation presented in DOE/WIPP 97-2220a is accurate and should be used in lieu of the information presented earlier in DOE/WIPP 97-2220. Specifically, we know that the H-3 drillpad encompasses the following four borings: H-3b1, H-3b2, H-3b3, and H-3d. These are the same four borings identified at the H-3 drillpad by the WIPP RCRA Facility Assessment (RFA) (NMED/DOE/AIP 94/1).

Craig 