

Construction, Stratigraphic, and Hydrologic Information for Hydrogeologic Workplan Characterization Well R-8/8a Rev. 1 (05/22/02).

Location: TA-53, Los Alamos Canyon, below confluence with DP canyon.
 Survey coordinates (brass marker in NW corner of R-8a cement pad):
 x: 1,641,139.0 E y: 1,772,554.6 N (NAD 83)
 z: 6,544.7 ft asl (NGVD 29)
 R-8 is 62 ft due east from R-8a at survey coordinates (center of cement plug):
 x: 1,641,195.5 E y: 1,772,533.4 N (NAD 83)
 z: 6,542.9 ft asl (NGVD 29)

Drilling: air rotary core w/ wireline retrieval and fluid-assist air rotary reverse circulation with casing advance.
 R-8 Start date: 09/27/01.
 R-8 End date: 12/10/01.
 R-8a Start date: 01/09/02.
 R-8a End date: 01/27/02.

Borehole R-8 drilled to 1022 ft. bgs. (T.D.).
 Borehole R-8a drilled to 880 ft. bgs. (T.D.).

Data collection:
 Hydrologic properties:
 Field Hydraulic Testing: Falling head test on R-8a screen #2.

Cores/cuttings submitted for geochemical and contaminant characterization: (0)
 Groundwater samples submitted for geochem and contaminant characterization: (1, R-8)

Geologic properties:
 Mineralogy, petrography, and chemistry 11
 Borehole logs from R-8:
 Lithologic: (0-1022 ft).
 Video (LANL tool): 30-261 ft.
 Natural gamma (LANL tool): 0-261 ft. and 0-768 ft. bgs.
 Induction (LANL tool): 30-261 ft.
 Schlumberger Logs (0-761 ft cased, 761-764 ft open hole): Litho-Density, Spectral Gamma, Elemental Capture, Thermal/Epithermal Neutron, Natural Gamma.

Contaminants Detected in R-8 Water Sample:
 Tritium at 15 pCi/l.

Well construction:
 Drilling Completed (R-8a): 01/27/02.
 Contract Geophysics (R-8): 11/13/01.
 Well Constructed (R-8a): 01/27/02 through 02/01/02.
 Well Developed (R-8a): 02/04/02 through 02/14/02.
 Westbay Installed (R-8a): 02/21/02 through 02/24/02.

Casing: 5-in OD/4.5-in ID stainless steel with external couplings

Number of Screens in R-8a: 2
 5.56-in OD/4.5-in ID pipe based, s.s. wire-wrapped; 0.010-in slotted.

Screens in R-8a (perforated pipe interval):
 Screen #1 - 705.3-755.7 ft. bgs.
 Screen #2 - 821.3-828.0 ft. bgs.

Well development consisted of wire brushing, bailing, surging, swabbing, and pumping.

Groundwater occurrence was determined in R-8 by recognition of first water produced while drilling, by borehole geophysics, and by borehole video. Static water levels were determined after the R-8a borehole was rested.

Geologic contacts are from R-8 and were determined by examination of cuttings and interpretation of geophysical logs. Contacts may be refined by analysis of geologic samples by petrography and rock chemistry. No samples collected from R-8a borehole.

