



0 to 45 ft ALTERNATING WELL-GRADED SAND with silt and gravel (SW-SM) and WELL-GRADED GRAVEL with silt and sand (GW-GM)

Alternating layers SW-SM up to 10 ft of SW-SM thick and layers of GW-GM up to 5 ft thick predominate. Sediment color ranges from very pale orange (10YR 8/2) to grayish orange (10YR 7/4). Gravel clasts are moderate brown (5YR 4/4) to pale brown (5YR 5/2), derived from underlying welded ashflow tuff (possibly Topopah Spring Tuff) and are typical of colluvium. Weak cementation and strong reaction to 10% HCl was observed throughout the unit. All samples were dry.

45 to 230 ft ASHFLOW TUFF

Pale brown (5YR 5/2) to moderate brown (5YR 4/4), moderate to densely welded, devitrified; 5 to 10% pumice, pinkish gray (5YR 8/1); 2% lithic fragments, olive gray (5Y 4/1); 1 to 5% quartz phenocrysts, 1 to 3% mafic phenocrysts, rare feldspar phenocrysts. Contains zones of lithophysal mineralization. Vitrophyre occurs from 215 to 230 ft. Sharp contact with underlying non-welded tuff. Possibly Topopah Spring Tuff.

230 to 275 ft ASHFALL TUFF

Grayish orange pink (5YR 7/2) to light brown (5YR 6/4) and moderate brown (5YR 3/4), non-welded, devitrified; 10 to 15% pumice, very light gray (N8) to medium dark gray (N4); 5 to 10% lithic fragments, medium dark gray (N4 to grayish black N2); 5% quartz phenocrysts and rare mafics are present. Displays bedded tuff characteristics from 235 to 255 ft. Sharp contact with underlying welded tuff. Possibly Calico Hills Formation.

275 to 425 ft ASHFLOW TUFF

Pale brown (5YR 5/2) to moderate brown (5YR 5/4), moderately welded, vitric alteration; 5% pumice, medium gray (N3); 5% lithics, grayish orange (10YR 7/4); 10 to 15% quartz phenocrysts, 2% mafics, rare feldspar. Local occurrence of chalcedony and carbonate coatings of fracture surfaces. Possibly Prow Pass Tuff.

425 to 515 ft ASHFLOW TUFF

Light brown (5YR 5/6) to moderate brown (5YR 4/6) and pale red (10R 6/2), partially welded, vitric alteration; 2% pumice, white (N9); lithic poor; 5% quartz phenocrysts, rare feldspars and mafics. Local occurrences of chalcedony. Possibly Bullfrog Tuff.

515 to 810 ft VOLCANIC SANDSTONE with weakly welded tuff horizons

Moderate orange pink (5YR 8/4) to grayish orange pink (5YR 7/2) sandstone with medium light gray (N6) tuff horizons (5 to 15 ft thick). Unit is soft and samples were ground by the drill bit. Sandstone grains are well rounded and oxidized. Sharp contact with underlying welded tuff. Possibly pre-Bullfrog Tuff and sedimentary unit.

810 to 890 ft (T.D.) ASHFLOW TUFF*

Grayish orange (10YR 7/4) to moderate yellowish brown (10YR 5/4), partially welded, vitric alteration; 1 to 5% pumice, pale yellowish orange (10YR 8/6), moderate red (5R 4/6), very light gray (N8); 1 to 5% lithics, dusky red (5R 3/4), and pale yellowish orange (10YR 8/6); 1 to 4% quartz phenocrysts, absence of feldspars and mafics. Unit contains sandstone and siltstone horizons. Strongly oxidized with orange to red hematitic staining on tuffaceous clasts. Possibly Tram Tuff.

* Sample particle size is very small and difficult to describe due to drill bit grinding of the rock.

Nye County, Nevada Nuclear Waste Repository Project Office	
Early Warning Drilling Program Summary Lithology Log NC-EWDP-18P	
Date: 5/23/02	Geologist: JSW
Scale: Not to Scale	Drawn by: RFD