Alluvium Core Logging Form Comments - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-10P** (Phase 3)

Date Logged	Sample Number	Depth Interval (feet bgs) From	Depth Interval (feet bgs) To	Comments
11/13/2002	DC-10P-1-4	58.35	58.85	Gravel component consists of 85% glassy densely to non-welded tuffs, 10% felsic flows and 5% vescicular basalt. 100% are hard unweathered clasts. Max size = 6". Moisture content recorded as dry for all samples - samples were dry at time of logging.
11/13/2002	DC-10P-2-4	168.22	168.72	Gravel component consists of predominantly glassy and densely-welded ashflow tuff; 95% are hard unweathered and 5% weakly weathered. Max size = 2". Moisture content recorded as dry for all samples - samples were dry at time of logging.
11/25/2002	DC-10P-4-4	666.47	666.97	Gravel component is 90% hard densely welded ashflow tuff clasts. 58% are < 2"; 42% are >= 2". Very hard crystalline clasts. Sand component is 50% densely-welded and 50% non-welded clasts. Only 10% non-welded clasts are present in gravel faction. 25% of gravel clasts have hard well-cemented grain coatings, but no indication that clasts are cemented together. Moisture content recorded as dry for all samples - samples were dry at time of logging.
12/2/2002	DC-10P-4-6	667.47	667.72	Gravel component is: 80% > 3/4"; 60% > 1.5". Clasts are 100% non-to weakly welded ashflow tuff. 50% of clasts are crystal rich, and display flow banding & spherulitic texture. Grain coatings on gravel clasts are absent. There is no indication of cementation. 5% of gravel clasts contain small (1/25" to 2/25") white, erodible pumice. One large clast (1") is oxidized red and contains 80% yellowish pumice. Sand component is 60-70% light colored, non-to weakly-welded clasts; 30-40% welded. Moisture content recorded as dry for all samples - samples were dry at time of logging.
12/2/2002	DC-10P-5-4	703.16	703.66	Gravel component is: 70% > 3/4"; 50% > 1.5". 75% of clasts are non-welded, crystal and pumice poor. 20% are weakly-welded, crystal rich; 5% are densely welded. The largest gravel clasts (>2") contain calcedonic quartz and display spherulitic texture. These clasts are very hard. Sand component is pumice-rich and 75% non- to weakly welded ashy ground mass. No densely welded clasts are present. Pumic is very soft: turns to mush with water. Moisture content recorded as dry for all samples - samples were dry at time of logging.
12/2/2002	DC-10P-5-6	704.16	704.41	Very hard and abrasive sandy grain coatings cover 5 to 10% of the gravel clasts and may represent relic cementation. Gravel component is: 50% > 3/4", 3% > 1.5". Gravel lithology is roughly equal proportions of densely, weakly, and non-welded ashflow tuffs. All appear to be hard to very hard. Sand component is 90% ashy, non- to weakly welded fragments of groundmass - crystal and lithic poor. Contains minor (<1%) soft white pumice that becomes mush with water. Moisture content recorded as dry for all samples - samples were dry at time of logging. Origin of clay is possibly in part the soft erodible pumice.
12/2/2002	DC-10P-6-4	743.11	743.61	Gravels are predominantly (>90%) non-welded ashflow tuff clasts. All clasts are very crystal rich and 25% have numerous cavities where crystals have been plucked out. Gravels are hard and pumice poor. 11% of gravel > 3/4", 22% > 1". Sand component is 100% crystal poor ashy groundmass, non-welded, and is very dissimilar from hard crystal rich gravel component. Moisture content recorded as dry for all samples - samples were dry at time of logging.
12/2/2002	DC-10P-6-6	744.11	744.36	Gravels are non- to weakly welded, hard, pumice poor, crystal rich; 50% of gravels are > 3/4", 35% > 1.5". 25% of gravel clasts have numerous cavities where grains have been plucked out. Sand component is predominantly (95%) non-welded fragments of ashy matrix, crystal poor (as opposed to gravel component). Moisture content recorded as dry for all samples - samples were dry at time of logging.