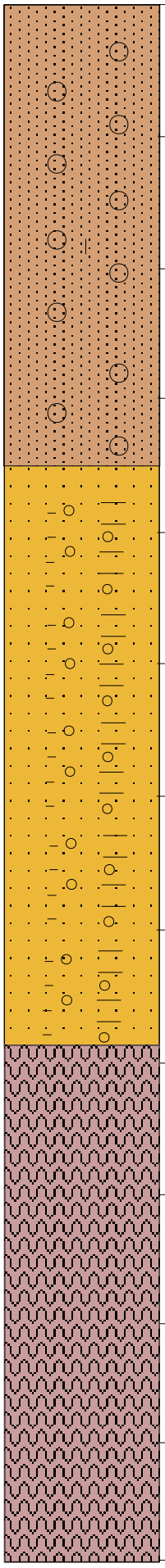


**0 to 350 ft WELL-GRADED SAND with silt and gravel (SW-SM)**

SW-SM layers generally less than 50 ft thick predominate. Silty sand with gravel layers (SM) up to 20 ft thick are present throughout the interval. Several thin layers less than 15 ft thick of well-graded gravel with silt and sand (GW-GM) are present between 100 and 300 ft. Fines in SM layers are predominantly non-plastic with some occurrences of low plasticity in the interval 310 to 345 ft. Gravel clasts are volcanic in origin and subangular to subrounded. Sediment color ranges from moderate yellowish brown (10YR 5/4) to moderate brown (5YR 5/4) and (5YR 4/4). Clasts exhibited weak cementation from 15 to 22.5 ft. A weak reaction to 10% HCl is displayed in sediments from 15 to 22.5 ft; otherwise, the sediments show no reaction. All samples were dry.

**350 to 790 ft SILTY SAND with gravel (SM)***

A thick sequence of SM with gravel is present to 790 ft. Several gravelly layers with silt (GM) are present from 460 to 655 ft. Unit also contains several layers of well-graded sand with silt and gravel (SW-SM) and silty gravel (GM) less than 5 ft thick from 598 to 665 ft. A 5 ft layer of sandy lean clay (CL) is present from 745 to 750 ft. The plasticity of fines in SM and GM layers range from non-plastic to moderately plastic. Gravel clasts are volcanic in origin and subrounded. Sediment color ranges from moderate yellowish brown (10YR 5/4) to dark yellowish orange (10YR 6/6) to moderate brown (5YR 5/4) to light brown (5YR 5/6). The interval exhibited no cementation and no reaction to 10% HCl was observed. All samples were moist below 570 ft and wet below 665 ft.

*USCS texture classification between 665 and 790 ft is based on drill cutting particle size distribution measurements from this borehole between 350 and 665 ft, and similar measurements on core samples from 4 core runs between 348 and 745 ft in NC-EWDP-10P.

**790 to 1200 ft (T.D.) VOLCANIC CONGLOMERATE**

Clasts range in color from grayish brown (5YR 5/1) to dark yellowish brown (10YR 4/2). Clasts are well sorted, rounded to subrounded, and composed of welded ashflow tuff lithologies. The matrix color is medium gray (N5) to light brown (5YR 6/4) and pale yellowish brown (10YR 6/2) and consists of clayey fine sand. Clasts are well sorted and well rounded. No reaction to HCl was observed.

Nye County, Nevada
Nuclear Waste Repository Project Office

Early Warning Drilling Program
Summary Lithology Log
NC-EWDP-10SA

| | |
|---|---|
| Date: 12/18/02 | Geologist: JSW |
| Scale: Not to scale | Drawn by: RFD |