

LITHOLOGIES

EL-1: Independence Mountains Locality
Schroeder Formation of Fagan (1962): (Divided into 10 named subunits.)
Fross Creek Member (7th subunit above basal contact): Thinly bedded to fissile claystone that grades upward into interlayered chert beds and clay-rich beds, plus beds of siltstone; thickness less than 198 m (650 ft), but appears thicker because of folding (Fagan, 1962).
Dorsey Creek Member (2d subunit above basal contact): Thinly bedded claystone interbedded with scattered thin beds of chert, sparse beds of quartzite silt, and a few thin lava flows grade laterally into lava flows interbedded locally with volcanic agglomerate; thickness 198 m (650 ft) (Fagan, 1962).

EL-2: Wild Horse Locality
Purman Peak Formation of Coash (1967): (Divided into 13 subunits designated by number from the base upward.)
Subunit No. 6: Black shale; about 344 m (1,128 ft) thick (Coash, 1967).
Subunit No. 1: Alternating beds of shale and chert; about 305 m (1,000 ft) thick (Coash, 1967).

EL-3: HD Range Locality
Chaiman Shale: Generally black, brittle shale, with some siltstone and a few thin interbeds of sandstone (Riva, 1970), and of chert, plus a sandy limestone bed (Oversby, 1972); thickness inferred by Riva (1970) to be "hundreds of feet".
In the Windemere Hills, is black, fissile argillite with sporadic beds of sandstone; thickness about 609 m (2,000 ft) (Oversby, 1972).

EL-4: Pilot Range Locality
McGow Creek Group of Nisch and Hazzard (1962) (Divided into subunits named, or locally designated by letters, from the basal contact upward.)
Subunit G: Greenish-gray slate and metasilstone, and green to gray argillite, with a little marble; thickness about 348 m (1,140 ft) (O'Hell, 1968).

EL-5: Spruce Mountain and Pequoop Range Locality
Chaiman Shale: Black, fissile to mafissile, thinly to thickly bedded shale interbedded with siltstone, and, locally, interlayers of sandstone and pebble conglomerate; thickness 905 m (2,970 ft) in northern part of Pequoop Range (Thorman, 1970, p. 2), 366-457 m (1,200-1,500 ft) in central part (Robinson, 1961), and 762 m (2,500 ft) in Spruce Mountain (Hopp, 1972).

EL-6: Pinon Range Locality
Chaiman Shale: Gray, soft, locally micaceous and nonfissile, very carbonaceous shale, mudstone, and siltstone, locally metamorphosed to siliceous argillite; interbedded with thinly layered quartzite or quartzitic sandstone that constitutes 15 percent of the unit, and thinly layered locally bituminous, sandy limestone to calcareous sandstone that constitutes 1 percent of the unit; thickness reported only for the combined Chaiman Shale and overlying Diamond Peak Formation: 1,904 m (6,245 ft) (Smith and Ketter, 1975).

Webb Formation: Gray to black, laminated to shaly, locally thinly bedded mudstone and claystone, interbedded with porous to dense, weak to strong, thinly bedded to platy limestone, locally marl, as much as 61 m (200 ft) thick, and sandstone with chert cement; thickness 224 m (735 ft) to more than 244 m (800 ft) (Smith and Ketter, 1975).

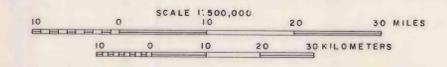
Woodruff Formation: Gray to black, carbonaceous shale with "pencil" cleavage in southern part of locality; thickness 152-183 m (500-600 ft). Northern part is thinly interbedded shale and chert, with total thickness of 914 m (3,000 ft) (Smith and Ketter, 1975).

Argillite unit of Lee Canyon of Smith and Ketter (1975): Black, fine-grained, very carbonaceous, thinly bedded argillite, mainly composed of quartzose silt and about 10 percent clay; includes interbeds of conglomerate a "few feet" thick, and of quartzite; thickness about 1,524 m (5,000 ft) (Smith and Ketter, 1975).

EXPLANATION

--- Localty boundary, approximate
..... Localty extends into adjacent county; adjacent part shown on map of adjacent county
--- Contact of exposed bedrock unit composed predominantly of clay-rich rock, with a dissimilar unit adjacent
--- Fault; can constitute the contact of an exposed bedrock unit composed predominantly of clay-rich rock, with a dissimilar unit adjacent
■ Location of reported thickness
★ County seat
● Town or village
⊕ U.S. Interstate Highway, with designation
⊞ U.S. Highway, with designation
⊙ State Route, with designation
→ General direction of ground-water flow
..... Boundary of discharge areas

PLATE 2. -- LOCALITIES OF EXPOSED CLAY-RICH BEDROCK IN ELKO COUNTY, NEVADA, SUITABLE FOR FURTHER INVESTIGATION



Hydrology adapted from Rush, 1974, and Scott, Smiles, Rush, and Vandenberg, 1971