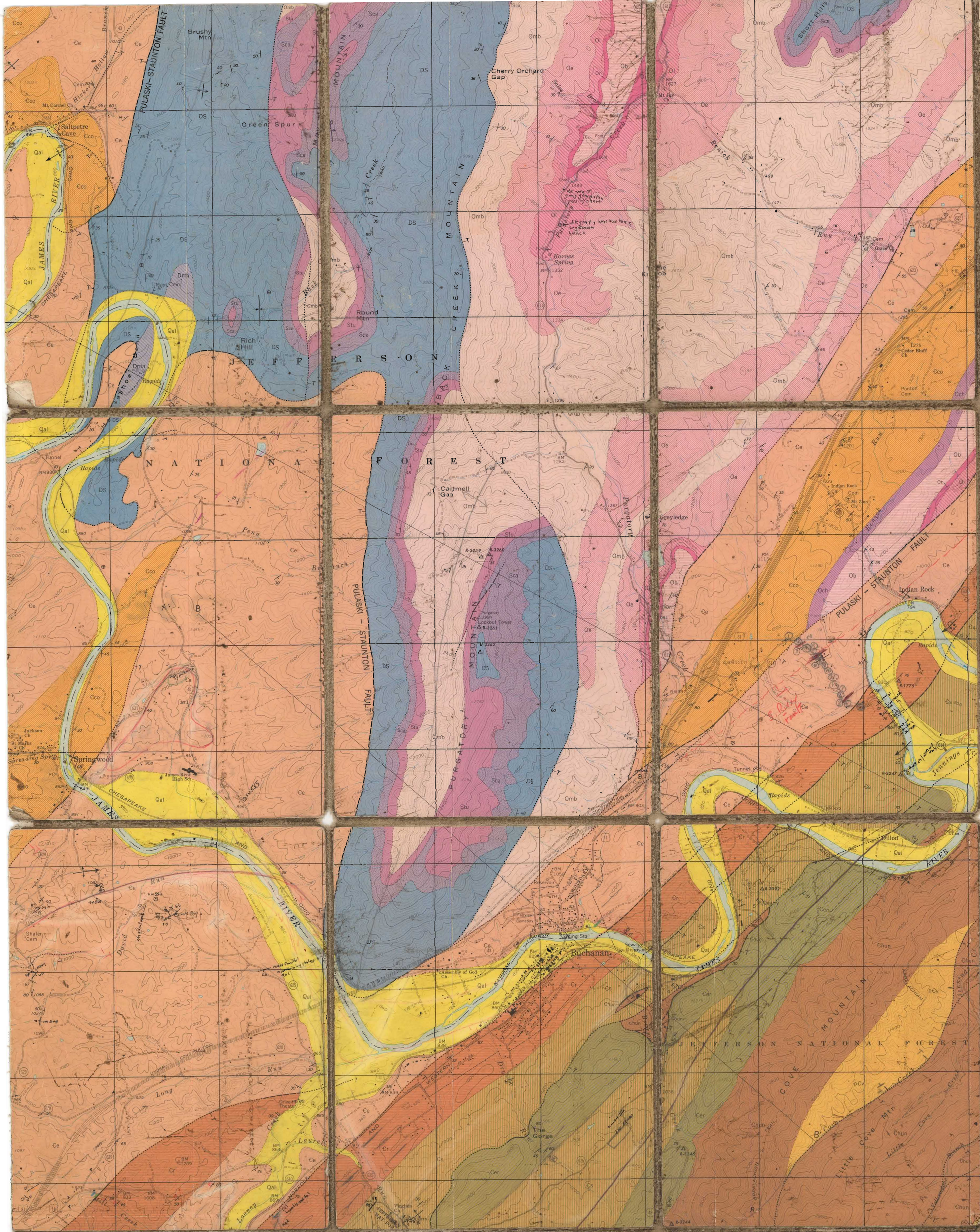

GEOLOGIC MAP OF THE BUCHANAN QUADRANGLE, VIRGINIA

Geology by Edgar W. Spencer

EXPLANATION

CENOZOIC — QUATERNARY

Qal — Alluvium
Recent stream deposits and some terrace gravel and colluvium.

PALEOZOIC — DEVONIAN

Dmn — Millboro Shale and Needmore Formation
Millboro: shale, black, fissile, thin-bedded; Needmore: shale, olive-gray.

DS — Lower Devonian—Upper Silurian rocks
Includes: sandstone, coarse-grained, calcareous and ferruginous, with a few conglomerate beds; Tonoloway Formation, limestone, dark-gray, thin-bedded; Keefer Sandstone, white, fine- to medium-grained.

SILURIAN — Sca — Cacapon Formation
Sandstone, maroon, hematitic; shale; a few white sandstone layers.

Stu — Tuscarora Formation
Sandstone, white to gray, massive, and pebble conglomerate. Map unit includes gray and reddish-gray, medium-grained, cross-bedded sandstone and mudstone (Juniata or Oswego formations?).

ORDOVICIAN

Omb — Martinsburg Formation
Shale, buff to greenish-brown and brown, fissile; gray fossiliferous limestone interbedded with shale at base; thin sandstone layers interbedded with shale near top.

Oe — Edinburg Formation
Includes: limestone, black, interbedded with shale (Liberty Hall); limestones, black, [illegible] Botetourt Member, limestone, blue-gray, coarse-grained, massive, reddish cast to weathered surfaces.

Ol — Lincolnshire Formation
Limestone, light-gray, coarse-grained, massive, fossiliferous (Murat); limestone, dark-gray, thin-bedded with stringers of black chert.

On — New Market Limestone
Limestone, dove-gray, fine-grained, massive.

Ob — Beekmantown Formation
Dolomite, light- to medium-gray, interbedded with dove-gray and dark-blue limestones, particularly near the base and top; some white chert beds, massive.

Och — Chepultepec Formation
Limestone, bluish-gray, thin- to massive-bedded, with layers of magnesian limestone and massive light-gray dolomite.

CAMBRIAN

Ꞓco — Conococheague Formation
Limestone, blue-gray, thin-bedded, with some sandstone and massive light-gray dolomite.

Ꞓe — Elbrook Formation
Dolomite, thin-bedded, platy, slabby weathered surfaces; limestone, dark-blue, thin-bedded; limestone, white, thin-bedded; shale.

Ꞓr — Rome Formation
Shale, maroon, buff, green; limestone, massive.

Ꞓs — Shady Formation
Dolomite, blue, massive; some massive limestone and thin sandy dolomite near the base.

Ꞓer — Erwin Formation
Sandstone, buff and blue-gray to white, quartzite with a few thin interbeds of shale.

Ꞓhun — Hampton and Unicoi Formations
Hampton: laminated shale, graywacke, and quartzite; [illegible] and pebble conglomerate with a few tuffaceous beds.

PRECAMBRIAN — pꞒv — Virginia Blue Ridge Complex
Includes: Pedlar Formation, granite, hypersthene granodiorite, diorite, and unakite; Marshall Formation, biotite granite.

CONTACTS

- exposed
- approximate
- covered or inferred

FAULTS

THRUST

- exposed
- approximate
- covered or inferred
- T overthrust side

ATTITUDE OF ROCKS

- 60 Strike and dip of beds
- 80 Strike and dip of overturned beds
- Strike of vertical beds
- Horizontal beds
- Anticlinal beds, arrow shows direction of plunge
- Synclinal beds, arrow shows direction of plunge
- Overturned anticlinal beds, arrow shows direction of plunge
- Overturned synclinal beds

QUARRIES

ACTIVE QUARRY

4. Liberty Limestone Corp. (Sherwood quarry)
5. James River Hydrate and Supply Co., Inc.

ABANDONED QUARRY

3. Limestone quarry

SAMPLE LOCATIONS

R-2092 — Representative samples of lithologies mapped and some raw materials that have potential use in ceramic industry.