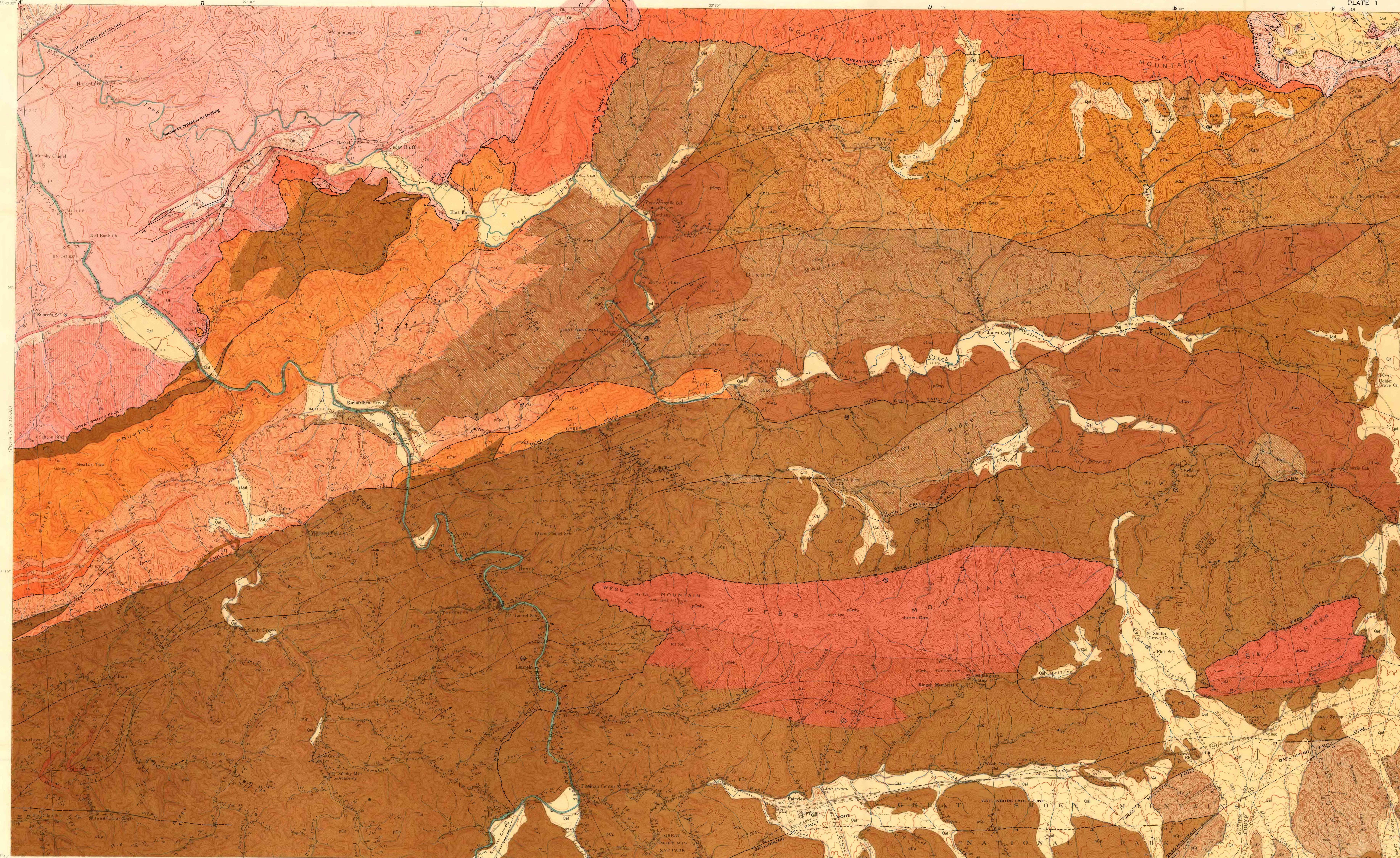
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PROFESSIONAL PAPER 349-A
PLATE 1



Control by U.S. Coast and Geodetic Survey, U.S. Geological Survey and Tennessee Valley Authority. Topography by Geological Survey from aerial photography by stereophotogrammetric methods. Field examination by Tennessee Valley Authority, 1940.

Geology by Warren Hamilton, R. B. Neuman, and J. B. Hadley, 1948-55

EXPLANATION

QUATERNARY

Pleistocene and Recent

Qal — **Alluvium**
Includes some residuum in northwest corner of Jones Cove quadrangle. Not shown over Jonesboro limestone of Richardson Cove quadrangle

UNCONFORMITY

ORDOVICIAN

Ordovician

Ot — **Tellico formation**
Calcareous shale, fine-grained sandstone, and impure limestone

Ob, Obt — **Blockhouse shale**
Dark fissile calcareous shale; Toqua(?) sandstone member, Obt

Ol — **Lenoir limestone**

Lower Ordovician — Knox group (in part)

Oj — **Jonesboro limestone**
Gray limestone with subordinate dolomite

Ou — **Ordovician rocks undivided**
Shown in section only

SEQUENCE BROKEN

CAMBRIAN

Ꞓrs — **Rome formation and Shady dolomite**
Shown in section only

CAMBRIAN(?)

Ꞓch — **Chilhowee group, undivided**
Shown in section only

Lower Cambrian(?) — Chilhowee group (in part)

Ꞓc — **Cochran formation**
Coarse-grained sandstone and white quartzite

PRECAMBRIAN

Ocoee series (Upper Precambrian) — Walden Creek group

pꞒsu, pꞒsm, pꞒsl — **Sandsuck formation**
Upper member of siltstone and fine- and coarse-grained sandstone, pꞒsu; middle member of coarse-grained sandstone and quartz conglomerate, pꞒsm; lower member like upper member, pꞒsl

Wilhite formation

pꞒwy₂, pꞒwy₁ — **Yellow Breeches member**
Upper unit dominated by limestone, pꞒwy₂; lower unit of varied clastic and carbonate rocks, pꞒwy₁

pꞒwd — **Dixon Mountain member**
Siltstone and other clastic rocks

Shields formation

pꞒss (cs, ls) — **Slate of Richardson Cove**
Slate and shale, with coarse-grained sandstone, cs, and limestone, ls

pꞒsc — **Conglomerate of Shields Mountain**
Quartz conglomerate and coarse-grained sandstone

pꞒl — **Licklog formation**
Siltstone and sandstone

SEQUENCE UNKNOWN

pꞒwb₂, pꞒwb₁ — **Rocks of Webb Mountain and Big Ridge**
Upper unit of coarse-grained sandstone and slate, pꞒwb₂; lower unit of thin-bedded clastic rocks, pꞒwb₁

pꞒrb — **Rich Butt sandstone**
Shown in section only

Snowbird group

pꞒp (cg) — **Pigeon metasiltstone**
Feldspathic metasiltstones; conglomerate, cg

pꞒr — **Roaring Fork sandstone**
Fine-grained feldspathic sandstone

Contact
Dashed where approximately located, gradational, or inferred; dotted where concealed

FAULT SYMBOLS ARE DASHED WHERE APPROXIMATELY LOCATED OR INFERRED; DOTTED WHERE CONCEALED

Overthrust fault
Barbs on upper plate. Probably of late Paleozoic age

Overthrust fault
Barbs on upper plate. Probably of early Paleozoic age

Reverse fault
Upthrown on south side. Includes faults of both early(?) and late Paleozoic ages. T, upper plate

Normal fault
U, upthrown side; D, downthrown side

FOLD SYMBOLS SHOWING BEARING AND DIRECTION OF PLUNGE OF FOLD AXIS

Anticline
Dashed where approximately located

Overturned anticline
Dashed where approximately located

Syncline
Dashed where approximately located

Overturned syncline
Dashed where approximately located

Minor anticline

Minor syncline

Horizontal — Inclined
Minor folds

Strike and dip of beds

Strike and dip of overturned beds

Strike and dip of beds
Top of beds not known

Strike of vertical beds
Where used, 90 indicates top of beds

Horizontal beds

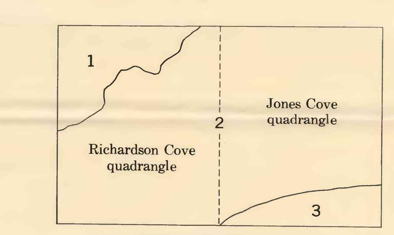
Strike and dip of slaty cleavage

Strike of vertical slaty cleavage

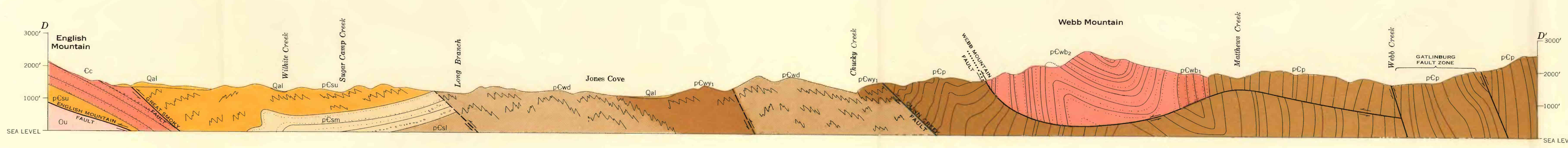
Axes of folds of slaty cleavage

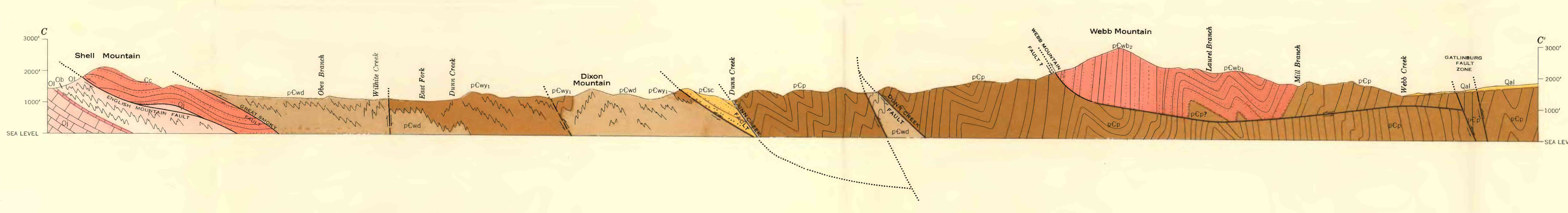
Location of specimens analyzed chemically
Prefix JC indicates Jones Cove quadrangle and RC indicates Richardson Cove quadrangle. Short bar points to exact location

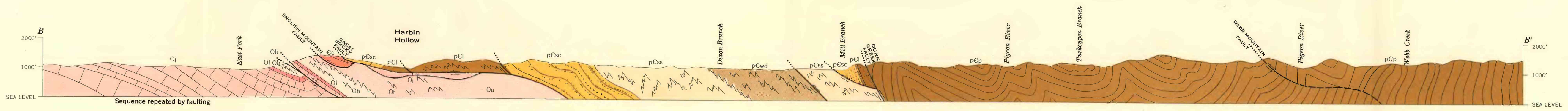
TRUE NORTH — MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 1961

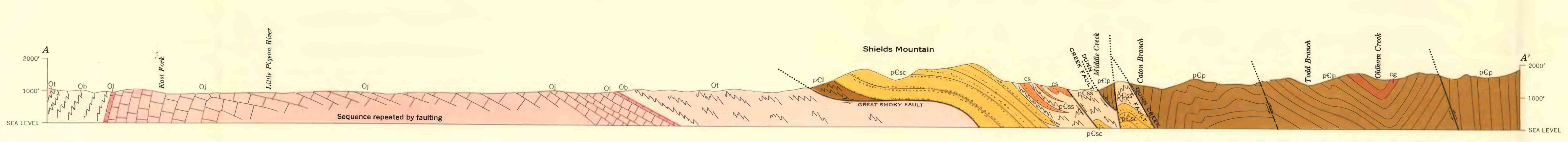


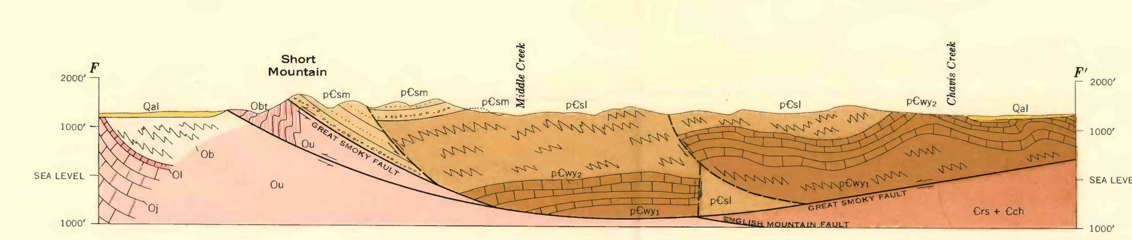
INDEX TO MAPPING
1. R. B. Neuman
2. W. B. Hamilton
3. J. B. Hadley

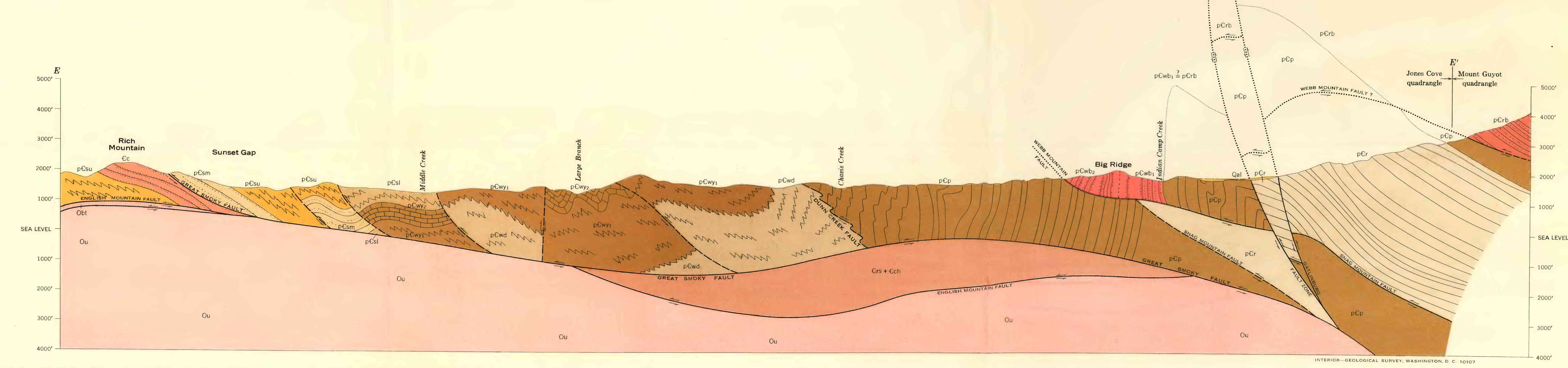












GEOLOGIC MAP AND STRUCTURE SECTIONS IN RICHARDSON COVE AND JONES COVE QUADRANGLES, TENNESSEE

SCALE 1:24 000
1 0 1 2 MILES
CONTOUR INTERVAL 20 AND 40 FEET
DATUM IS MEAN SEA LEVEL

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C. 10107