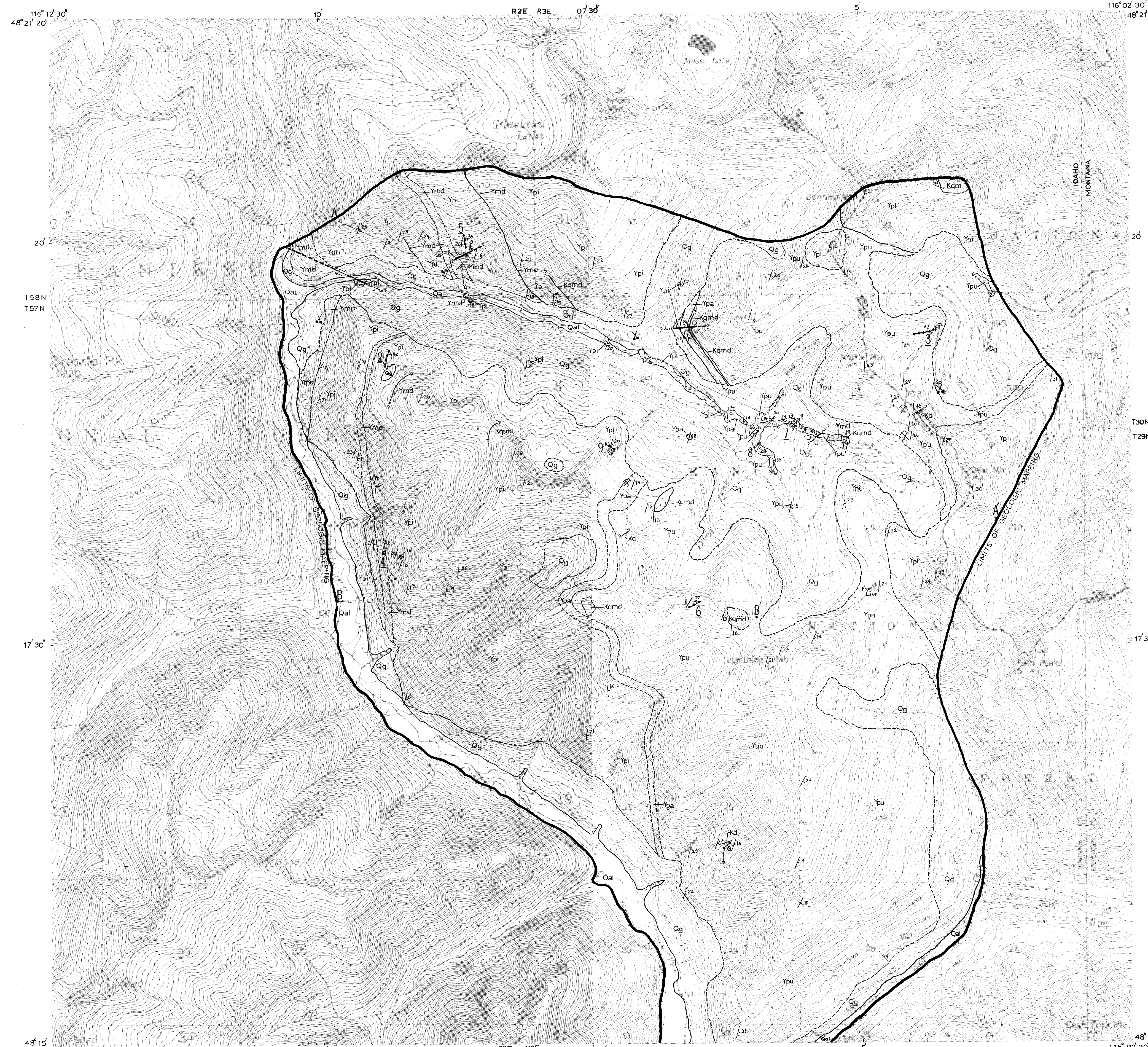


GEOLOGIC MAP AND SECTIONS OF THE LIGHTNING MOUNTAIN-RATTLE CREEK AREA, EASTERN BONNER COUNTY, IDAHO

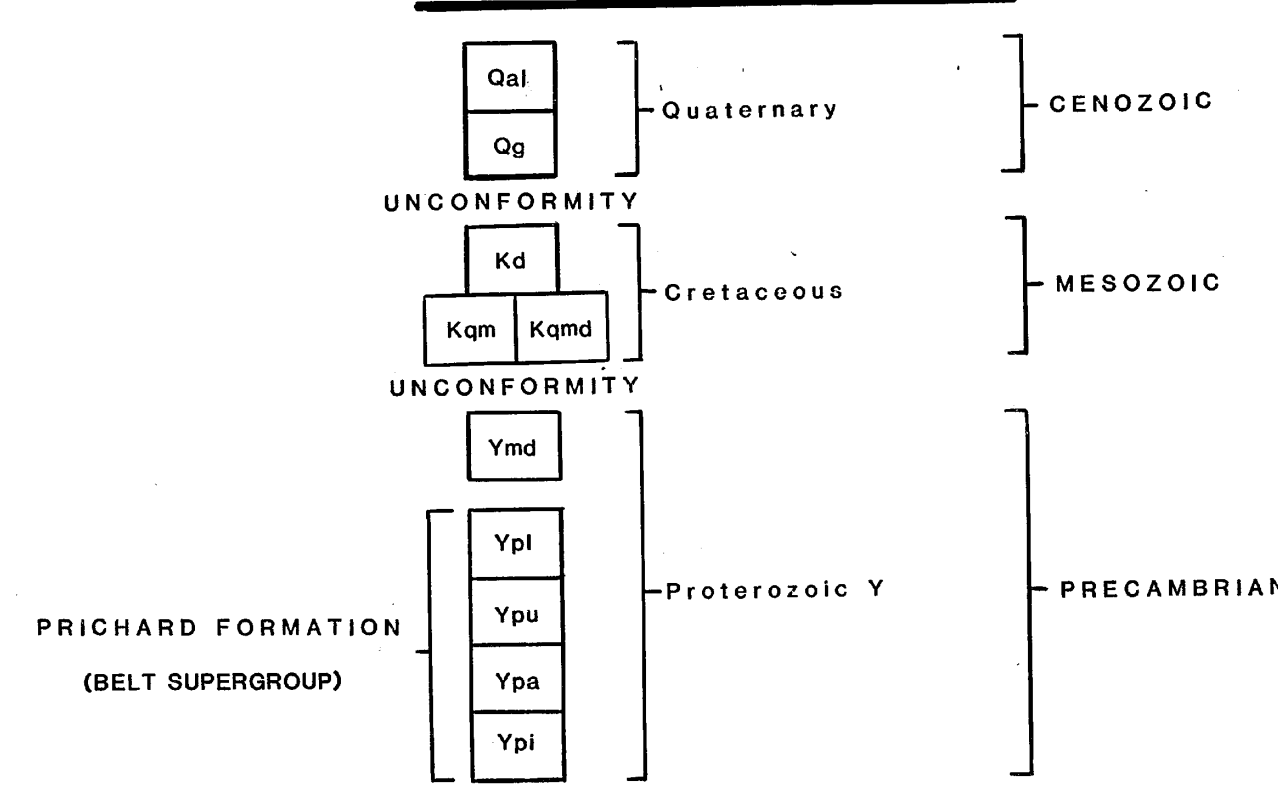
BY
JOHN E. ETIENNE
 1987

Idaho Geological Survey
 University of Idaho
 Moscow, Idaho 83843
 Technical Report 88-1
 January 1988

Geologic Map and Sections of the Lightning Mountain-Rattle Creek Area, Eastern Bonner County, Idaho, by John E. Etienne.
 Plate 1 in J.E. Etienne, *Geology and Mineral Resources of Lightning Mountain-Rattle Creek Area, Eastern Bonner County, Idaho*: Eastern Washington University M.S. thesis, 116 p.
 ISBN 1-55765-505-7



CORRELATION OF MAP UNITS



MAP SYMBOLS

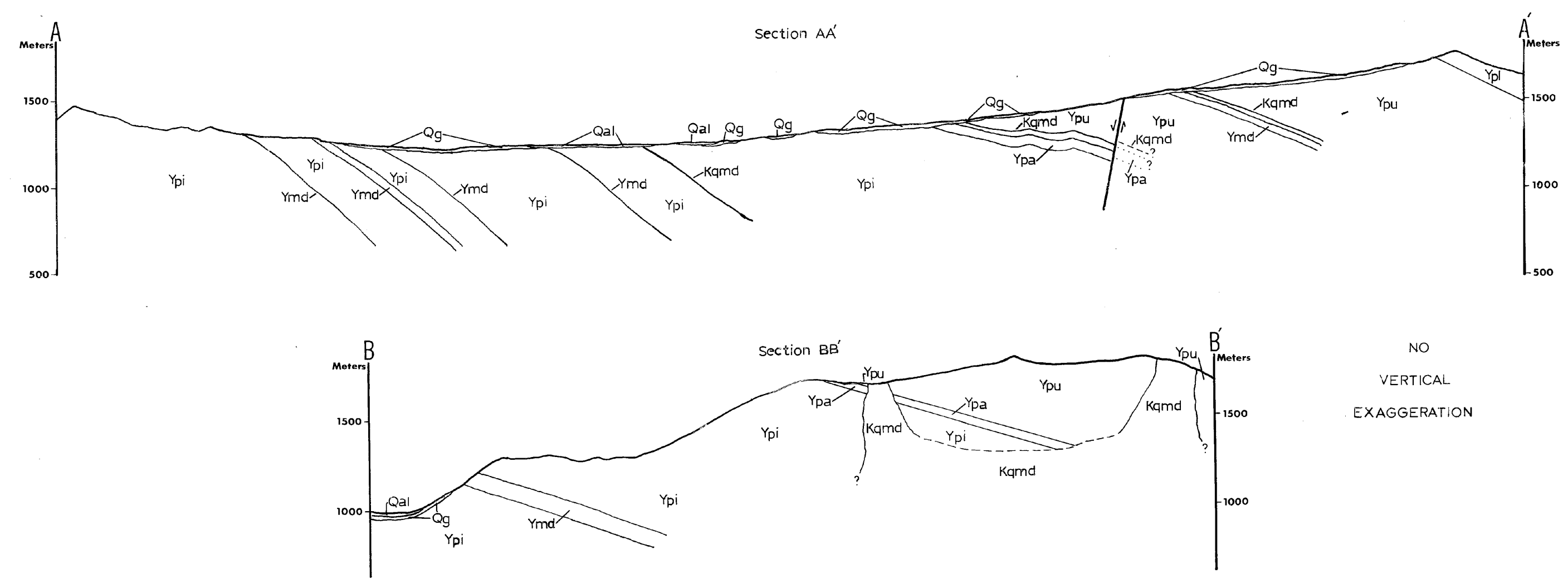
- Contact - dashed where approximately located
- Fault, showing dip of plane - dashed where approximately located, dotted where concealed. U on upthrown side and D on downthrown side. Arrows show strike-slip motion.
- Minor anticline - showing plunge of axis
- Minor syncline, overturned - showing plunge of axis
- Strike and dip of bedding
- Vein, showing dip
- Adit
- Shaft
- Gravel pit
- Flagstone quarry

PROSPECTS AND VEINS

- | | |
|---------------------------|------------------------------------|
| 1 Trapper Creek prospect | 6 Rattle Ridge sheared quartz vein |
| 2 Lightning Peak prospect | 7 Clatter Creek quartz vein |
| 3 Double H prospect | 8 Rattle Creek shear vein |
| 4 Unnamed copper prospect | 9 Alpine Creek quartz vein |
| 5 Moose Ridge quartz vein | |

DESCRIPTION OF MAP UNITS

- Qal** QUATERNARY ALLUVIAL DEPOSITS - Alluvium, and mass wastage deposits resulting from failure of glacial drift-covered slopes.
 - Qg** QUATERNARY GLACIAL DEPOSITS - Undifferentiated, poorly sorted deposits of boulders, cobbles, gravel, and sand.
 - Kd** DIABASE (CRETACEOUS) - Dark green, fine- to medium-grained, subophitic, diabase. Frequently altered by sericite and chlorite.
 - Kamd** QUARTZ MONZODIORITE (CRETACEOUS) - Greenish-gray, leucocratic, fine- to coarse-grained, porphyritic, hypabyssal, hornblende quartz monzodiorite to hornblende granodiorite.
 - Kqm** QUARTZ MONZONITE (CRETACEOUS) - Light gray, leucocratic, fine- to medium-grained, subhedral granular, hornblende quartz monzonite. Contains abundant sphene.
 - Ymd** METADIORITE (PURCELL SILLS) (PROTEROZOIC Y) - Dark gray to greenish-gray, holocrystalline, medium- to coarse-grained, subophitic, quartz diorite to gabbro. Pyroxenes altered to hornblende.
- PRICHARD FORMATION (BELT SUPERGROUP) (PROTEROZOIC Y)**
- Ypl** Laminated argillite member - Tan to dark gray, planar laminated argillite and interbedded siltite; commonly contains streaks of pyrrhotite and porphyroblasts of chlorite.
 - Ypu** Upper interbedded member - Light tan to dark gray, massive fine-grained quartzite interbedded with argillite and siltite. Quartzites contain brown concretions, channels, and sole flute casts. Argillites and siltites occur in couplets and contain streaks of pyrrhotite and porphyroblasts of chlorite.
 - Ypa** Argillite member - Light to dark gray, planar laminated argillite and interbedded siltite; commonly contains streaks of pyrrhotite and few chlorite porphyroblasts.
 - Ypi** Interbedded member - Tan to dark gray, massive fine-grained quartzite interbedded with argillite and siltite. Quartzites contain white or brown concretions, channels, and sole flute casts. Argillites and siltites occur in couplets and contain streaks of pyrrhotite.

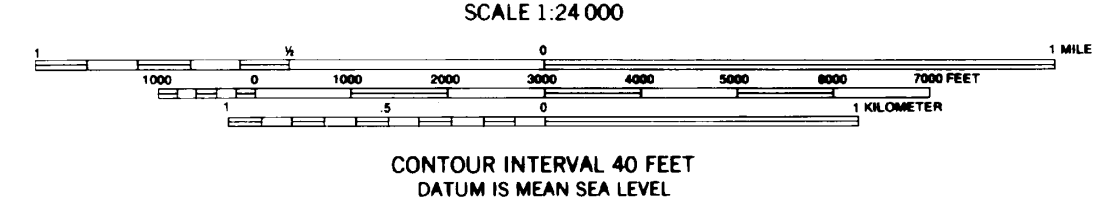
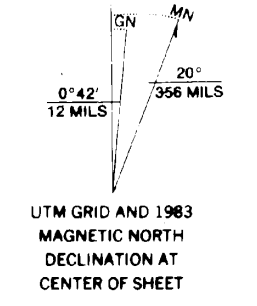


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- Bennett, E. H., Kopp, R. S., and Galbraith, J. H., 1975, *Reconnaissance geology and geochemistry of the Mt. Pend Oreille quadrangle and surrounding areas*: Idaho Bureau of Mines and Geology Pamphlet 163, 83 p.
- Harrison, J. E., 1969, *Geologic map of part of the Mount Pend Oreille quadrangle, Idaho-Montana*: U. S. Geological Survey Open File Report 69-120

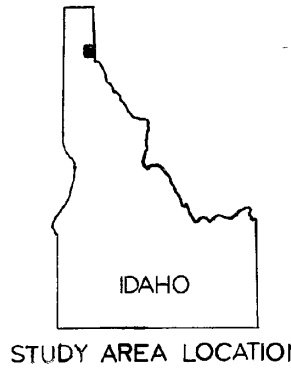
Base map prepared by the U.S. Geological Survey
 Scale changed by U. S. Forest Service, Region One Missoula, Montana
 Control by USGS, USFS and US
 Topography from aerial photographs by multiplex methods.
 Aerial photographs taken 1946. Field check 1951.
 Polyconic projection, 1927 North American datum
 10,000-foot grid based on Idaho coordinate system, west zone,
 and Montana coordinate system west zone

INTERIM EDITION
 Modification to USGS base map by Geometrics Service
 Center from 1981 and 1982 aerial photography and 1983
 correction guides furnished by the Northern Region



CONTOUR INTERVAL 40 FEET
 DATUM IS MEAN SEA LEVEL

NOTE: Vein size exaggerated to show relationships clearly.



Geology mapped by John Etienne,
 July, August, and September, 1986.