GEOLOGIC MAP OF THE SPADES MOUNTAIN QUADRANGLE, KOOTENAI COUNTY, IDAHO

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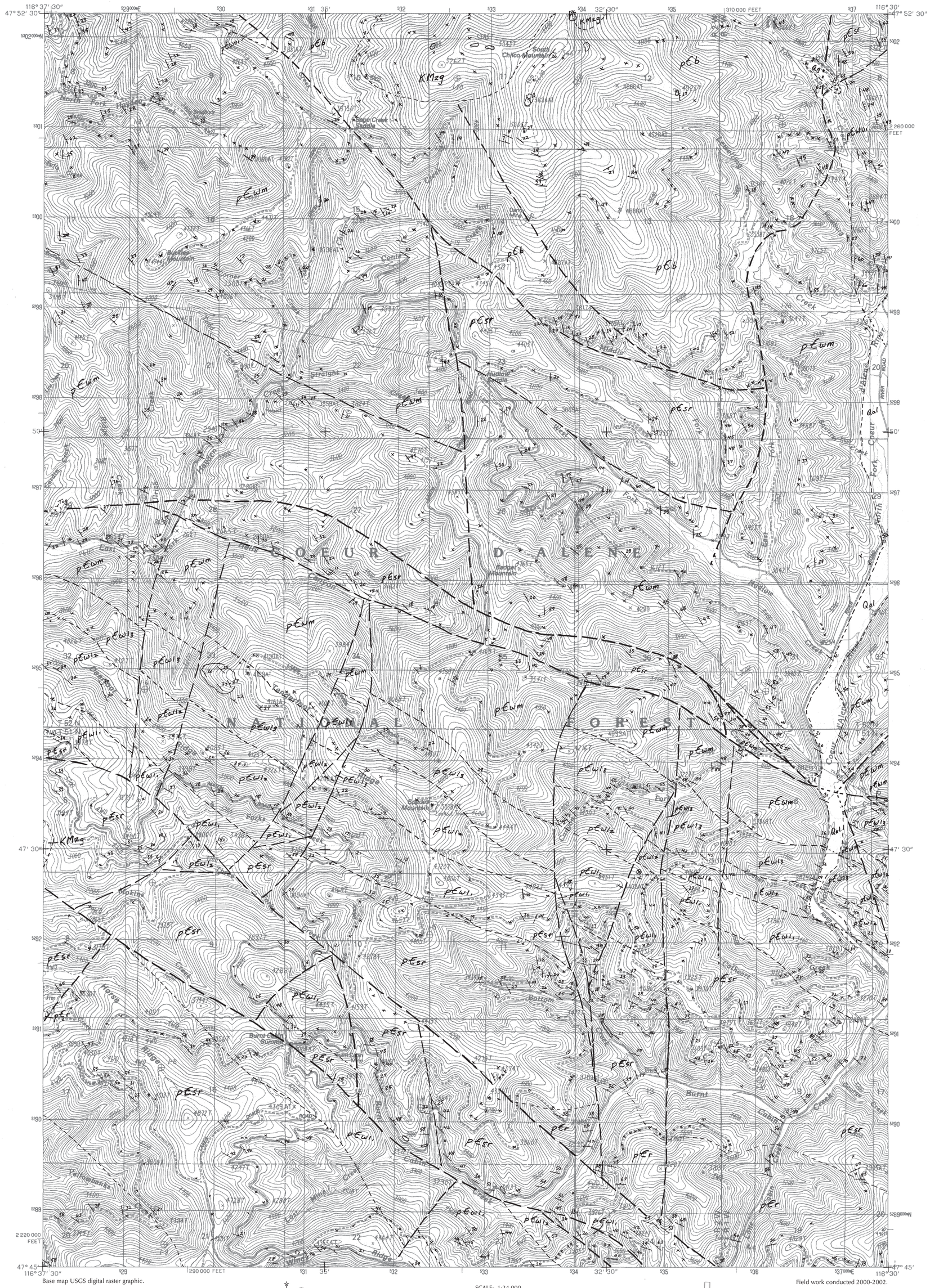

Description of Map Units

Quaternary

Qal — Alluvium -- Recently-deposited clay, silt, sand, and gravel in stream valley floors.

Qg — Debris deposited by Pleistocene glaciers originating on Chilco Peak -- Clay and sand containing gravel, cobbles, and boulders composed mainly of quartzite and granodiorite.

Tertiary

Tog — Old gravel -- Tan to orange silt, sand, gravel, cobbles, and boulders filling Tertiary stream valleys and composed of material derived from surrounding Belt metasediments.

KMzg — Stocks and other irregular intrusive bodies of granodioritic to quartz monzonitic composition.

Middle Proterozoic Belt Supergroup

Wallace Formation

pEwl1 — Upper Wallace unit 1 -- Laminated to very thin-bedded olive green to dark gray and black argillite with light gray to gray siltite and quartzite.

pEwm — Middle Wallace -- Thin- to medium-bedded, gray to light gray and white quartzite, rusty-weathering dolomitic quartzite grading to quartzitic dolomite, green argillite and, especially in the lower part of the unit, black argillite caps up to 3 inches thick over the quartzite-dolomitic quartzite-green argillite sequences. Pinch-and-swell texture common. Black argillite caps have contorted desiccation cracks filled with sand and silt from overlying units. Green argillite more prevalent in upper part of unit. Gradational zone into upper Wallace characterized by alternating 2 to 5 foot sequences of each unit.

pEwl3 — Lower Wallace unit 3 -- Thin- to medium-bedded light gray to gray quartzite, dolomitic quartzite grading to quartzitic dolomite, and abundant green argillite. Few thin black argillite caps. Dolomitic quartzite and quartzitic dolomite are dominant constituents in most areas.

pEwl2 — Lower Wallace unit 2 -- Thin- to medium-bedded light gray to gray quartzite, rusty-weathering dolomitic quartzite grading to quartzitic dolomite, and little green argillite. Abundant and prominent black argillite caps. Similar to middle Wallace, except that quartzitic dolomite is present in greater quantity than in most middle Wallace exposures.

pEwl1 — Lower Wallace unit 1 -- Green argillite and carbonate-bearing argillite with thin- to medium-bedded light gray to gray quartzite and rusty-weathering dolomitic quartzite grading to quartzitic dolomite. Similar to lower Wallace unit 3, except that quartzitic dolomite is much less abundant.

pEsr — St. Regis Formation -- Thin- to very thin-bedded, green and purple argillite with green silite and gray to tan and greenish impure quartzite. Quartzite is especially prominent in the lower one-third of the formation, where it is more abundant than argillite or siltite and in places becomes medium- to thick-bedded. Rusty-weathering dolomitic argillite common in upper one-half to one-third of formation with wisps and very thin beds of argillitic dolomite occurring in the uppermost part of the formation. Top of unit placed at lower contact of prominent dolomitic quartzite/quartzitic dolomite beds of the overlying lower Wallace.

pEr — Revett Formation -- Thin- to thick-bedded, gray to white and some greenish quartzite with thin- to medium-bedded siltite and thin-bedded greenish argillite in places. Quartzite is generally more vitreous, blocky and less susceptible to weathering than underlying Burke Formation. Argillite increases toward formation's top, which is placed at the last medium- to thick-bedded white quartzite.

pEb — Burke Formation -- Thin- to thick-bedded, gray and dark gray to greenish, subvitreous siltite and fine-grained quartzite with abundant argillite and siltite-argillite, especially in the lower one-third. Contains numerous layers of quartzite, which in a few thin beds resembles vitreous Revett quartzite, in the upper one-third to one-half of the formation. The top of the Burke is placed at the bottom of thick beds of vitreous white quartzite.

Symbols

- Contact, approximately located
- Contact, concealed
- Fault, approximately located
- Fault, concealed
- Strike and dip of beds — 47 inclined; ⊗ horizontal
- Area of abundant outcrop or road exposure
- × Individual outcrop, roadcut exposure or diagnostic rubble

Base map USGS digital raster graphic.

Control by USGS and NOS/NOAA.

Topography by photogrammetric methods from aerial photographs taken 1977. Field checked 1980. Map edited 1985.

Projection and 10,000-foot grid ticks: Idaho coordinate system, west zone (transverse Mercator).

1927 North American datum.

National geodetic vertical datum of 1929.

UTM Grid and 1985 magnetic north declination at center of map.

SCALE: 1:24,000

1 1/2 0 1 MILE

1 0.5 0 1 KILOMETER

Contour interval 40 feet.

IDAHO

QUADRANGLE LOCATION

Field work conducted 2000-2002.

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