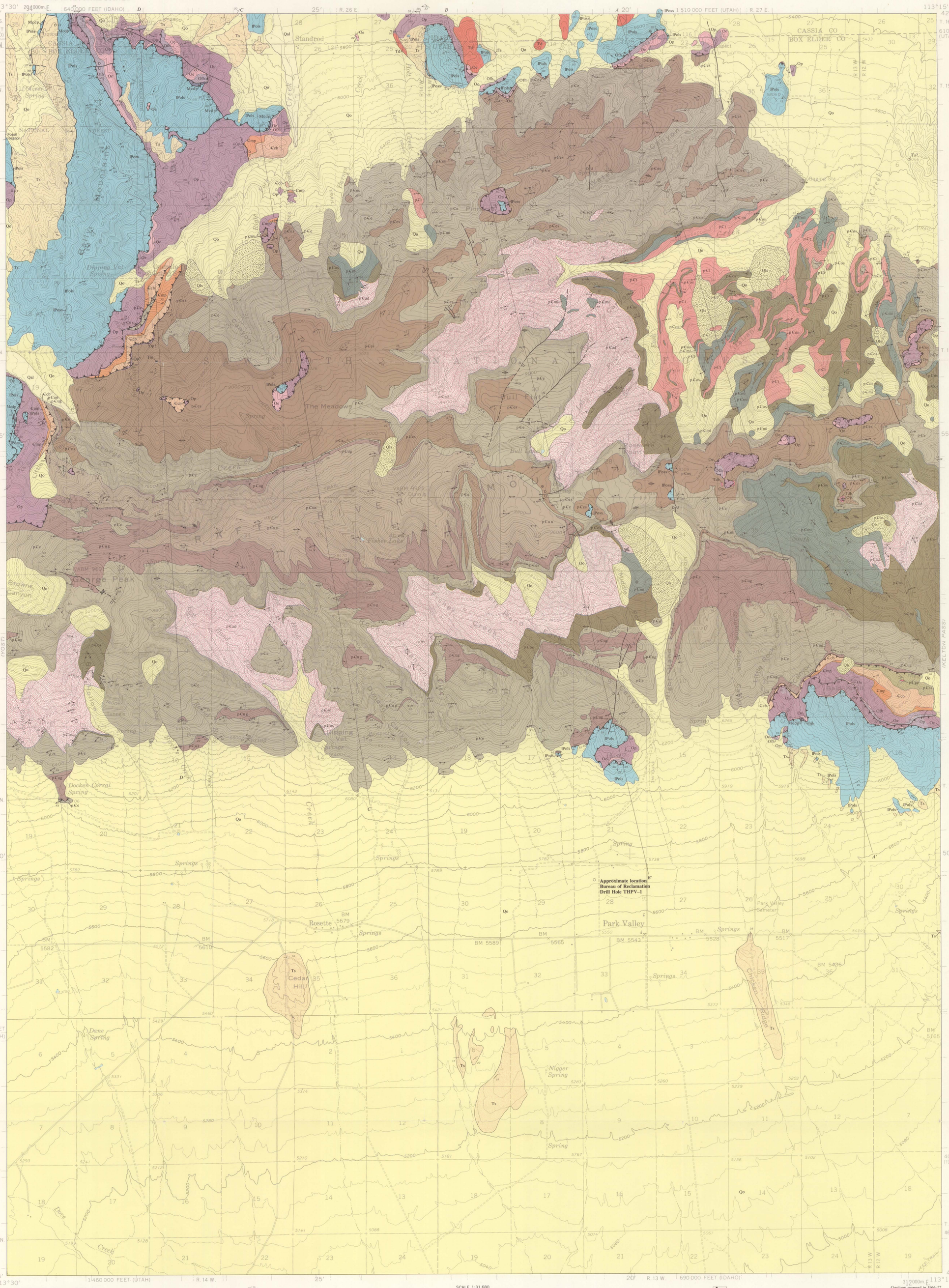
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

MISCELLANEOUS INVESTIGATIONS SERIES
MAP I-873

Property of
UTAH GEOLOGICAL & MINERAL SURVE




## CORRELATION OF MAP UNITS

| | |
|---|---|
| Qal, Qls | QUATERNARY |
| Unconformity | |
| Qo | QUATERNARY |
| Unconformity | |
| Td | TERTIARY — *Upper Miocene* |
| Unconformity | |
| Thrust fault | |
| Ts | TERTIARY — *Upper Miocene* |
| Tdb, Tm | TERTIARY — *Miocene(?)* |
| Unconformity | |
| IPoss | PENNSYLVANIAN |
| IPols | PENNSYLVANIAN |
| IPom | PENNSYLVANIAN |
| Mcdp | MISSISSIPPIAN |
| Thrust fault | |
| Ofh | ORDOVICIAN |
| Oe | ORDOVICIAN |
| Op | ORDOVICIAN |
| Ꞓmp | CAMBRIAN(?) |
| Ꞓcb | CAMBRIAN(?) |
| pꞒgp | PRECAMBRIAN(?) |
| pꞒss | PRECAMBRIAN(?) |
| Thrust fault commonly lies near this contact | |
| pꞒun | PRECAMBRIAN(?) |
| pꞒug | PRECAMBRIAN(?) |
| pꞒe | PRECAMBRIAN(?) |
| pꞒes | PRECAMBRIAN(?) |
| Unconformity | |
| pꞒad | PRECAMBRIAN |
| pꞒt | PRECAMBRIAN |
| pꞒmi | PRECAMBRIAN |
| pꞒos | PRECAMBRIAN |

## DESCRIPTION OF MAP UNITS

**Qal** MODERN ALLUVIUM — Silty sand and gravel

**Qls** LANDSLIDE DEPOSITS — Unsorted silty, sandy breccia

**Qo** OLDER ALLUVIUM AND OTHER DEPOSITS — Sand, gravel, and clayey silt

**Td** DACITE — Gray lava with plagioclase and pyroxene phenocrysts

**Ts** MUDSTONE, SANDSTONE, AND CONGLOMERATE — Moderately indurated, commonly tuffaceous rocks. Some limestone

**Tdb** DIABASE — Fresh, coarsely ophitic dark rock

**Tm** MINETTE — Fine, biotitic dark dike

OQUIRRH FORMATION (Pennsylvanian)

**IPoss** Fine-grained calcareous sandstone and orthoquartzite

**IPols** Chiefly gray sandy limestone

**IPom** Calcite and dolomite marble (metamorphosed limestone)

**Mcdp** METAMORPHOSED CHAINMAN OR DIAMOND PEAK FORMATION (Mississippian) — Chiefly dark phyllite and carbonaceous limestone

**Ofh** METAMORPHOSED FISH HAVEN(?) DOLOMITE (Ordovician) — Gray laminated dolomite. Locally tan dolomite

**Oe** METAMORPHOSED EUREKA QUARTZITE (Ordovician) — Thin-bedded white quartzite. Locally brecciated

**Op** METAMORPHOSED POGONIP GROUP (Ordovician) — Chiefly mica-calcite marble, with dolomite marble, quartzite, and phyllite

**Ꞓmp** SCHIST OF MAHOGANY PEAKS — Staurolite-garnet-biotite schist

**Ꞓcb** QUARTZITE OF CLARKS BASIN — Flaggy, gray to white quartzite

**pꞒss** SCHIST OF STEVENS SPRING — Fine quartz — muscovite schist with phyllite lenses. Layers of hornblende schist

**pꞒgp** METAMORPHOSED GRANITE PORPHYRY — Fine-grained rock with K-feldspar phenocrysts

SCHIST OF THE UPPER NARROWS

**pꞒun** Muscovite – quartz schist with lenses of phyllite, muscovite-feldspar-quartz schist, and chloritic schist

**pꞒug** Lower member; biotitic and feldspathic fine-grained gneiss and cataclastic schist

ELBA QUARTZITE (Precambrian?)

**pꞒe** White to green quartzite, muscovite schist, and hematitic schist

**pꞒes** Schist member; fine-grained mica-feldspar-quartz schist. Distinctly laminated

**pꞒad** METAMORPHOSED ADAMELLITE — Granular to gneissose, locally porphyritic biotite adamellite

**pꞒt** METAMORPHOSED TRONDHJEMITE AND PEGMATITE — White, gneissose to pegmatitic quartz-sodic plagioclase rocks

**pꞒmi** METAMORPHOSED MAFIC IGNEOUS ROCKS — Dark hornblende schist and amphibolite

**pꞒos** OLDER SCHIST — Fine mica-feldspar-quartz schist and semischist. Relict pebbles from unsorted pebbly mudstone

Contact

High-angle fault, showing dip. — Dashed where located less accurately than 0.1 inch at map scale; dotted beneath mapped units; U, upthrown side; D, downthrown side; arrows indicate relative movement

Thrust fault — Dashed where located less accurately than 0.1 inch. Sawteeth on upper plate

Inclined · Vertical · Horizontal · Overturned · Estimated · Variable

Strike and dip of beds

Inclined · Variable

Strike and dip of metamorphic foliations

Inclined · Horizontal · Plunge variable

Bearing and plunge of metamorphic folds and associated lineations

Inclined · Horizontal · Plunge variable

Bearing and plunge of postmetamorphic folds and associated lineations

NOTE: Symbols for bearing and plunge of metamorphic and postmetamorphic features may be combined with other symbols. Where symbols are combined, number refers to dip, not to plunge

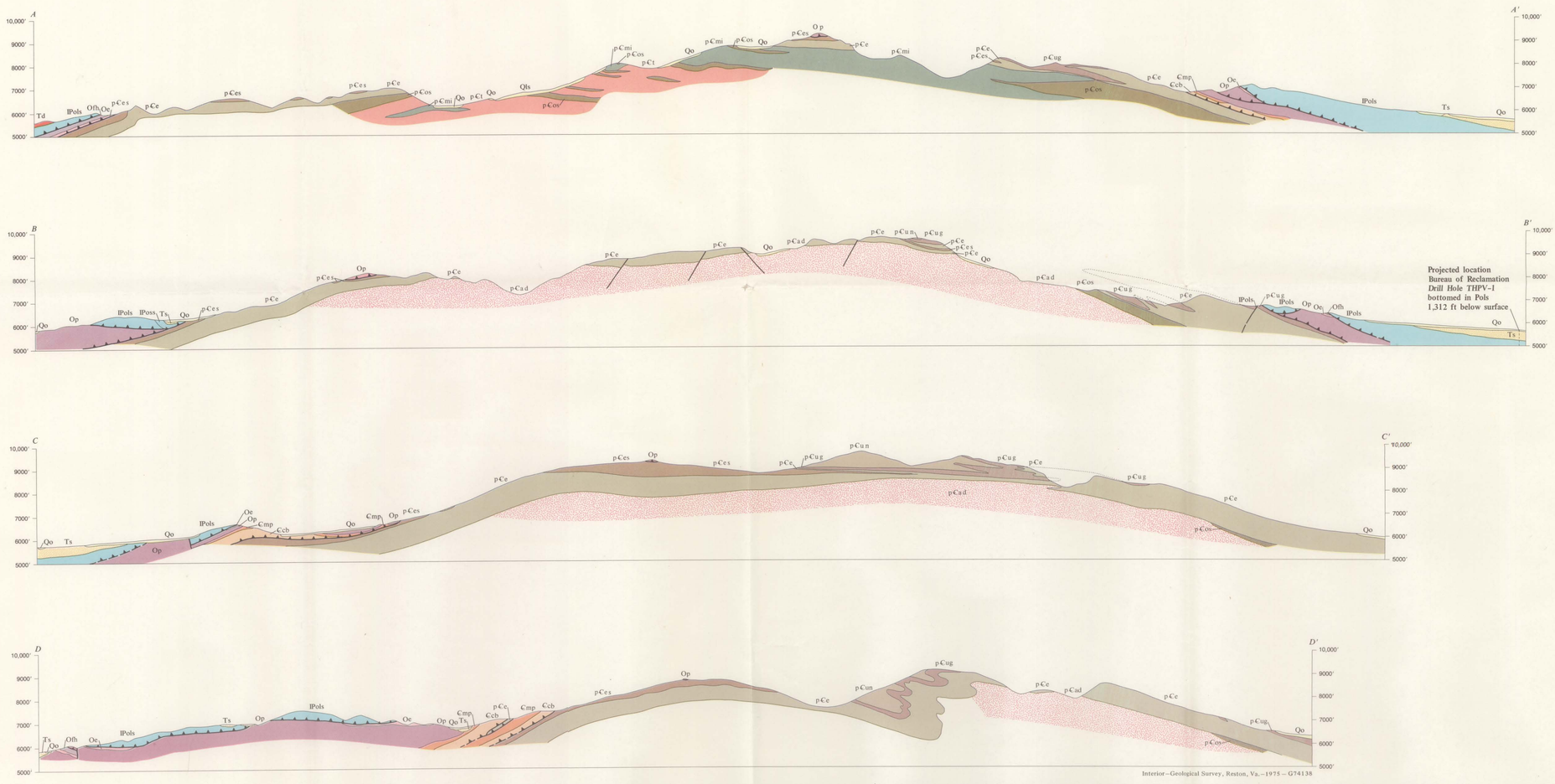
Base from U.S. Geological Survey, 1:62,500, 1959
10,000-foot grids based on Utah coordinate system, north zone, and Idaho coordinate system, central zone
1,000-metre Universal Transverse Mercator grid ticks, zone 12
Dashed land lines indicate approximate locations

TRUE NORTH · MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 1975

SCALE 1:31 680
1 ½ 0 1 MILE
1 .5 0 1 KILOMETRE
CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

UTAH
QUADRANGLE LOCATION

Geology mapped in 1966–72




Interior—Geological Survey, Reston, Va.—1975—G74138

# GEOLOGIC MAP OF THE PARK VALLEY QUADRANGLE, BOX ELDER COUNTY, UTAH, AND CASSIA COUNTY, IDAHO

By
Robert R. Compton
1975

For sale by U.S. Geological Survey, Denver, Colo. 80225 and Reston, Va. 22092, price $1.00
Explanatory pamphlet accompanies map