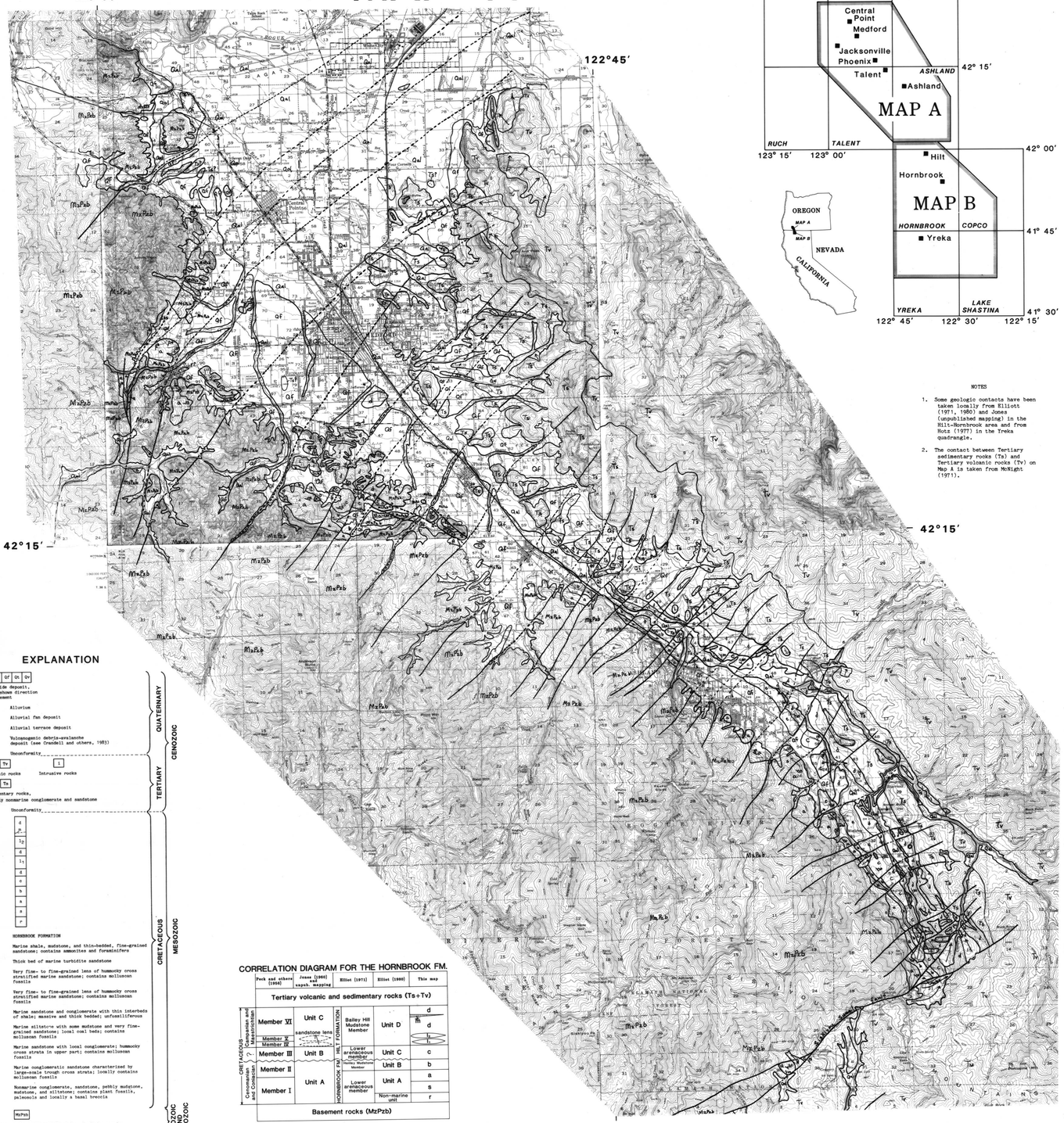
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

OPEN-FILE REPORT
83-373

MAP A



INDEX MAP SHOWING LOCATIONS OF U.S. GEOLOGICAL SURVEY 15-MINUTE QUADRANGLES AND MAPS A AND B

NOTES

1. Some geologic contacts have been taken locally from Elliott (1971, 1980) and Jones (unpublished mapping) in the Hilt-Hornbrook area and from Hotz (1977) in the Treka quadrangle.

2. The contact between Tertiary sedimentary rocks (Ts) and Tertiary volcanic rocks (Tv) on Map A is taken from McNight (1971).

EXPLANATION

Qal, Qf, Qt, Qv — Landslide deposit, arrow shows direction of movement

Qal	Alluvium	QUATERNARY — CENOZOIC
Qf	Alluvial fan deposit	
Qt	Alluvial terrace deposit	
Qv	Volcanogenic debris-avalanche deposit (see Crandell and others, 1983)	

Unconformity

Tv — Volcanic rocks	I — Intrusive rocks	TERTIARY — CENOZOIC
Ts — Sedimentary rocks, Mainly nonmarine conglomerate and sandstone		

Unconformity

HORNBROOK FORMATION

d	Marine shale, mudstone, and thin-bedded, fine-grained sandstone; contains ammonites and foraminifera	CRETACEOUS — MESOZOIC
m	Thick bed of marine turbidite sandstone	
l_2, l_3	Very fine- to fine-grained lens of hummocky cross stratified marine sandstone; contains molluscan fossils	
l_1	Very fine- to fine-grained lens of hummocky cross stratified marine sandstone; contains molluscan fossils	
c	Marine sandstone and conglomerate with thin interbeds of shale; massive and thick bedded; unfossiliferous	
b	Marine siltstone with some mudstone and very fine-grained sandstone; local coal beds; contains molluscan fossils	
a	Marine sandstone with local conglomerate; hummocky cross strata in upper part; contains molluscan fossils	
s	Marine conglomeratic sandstone characterized by large-scale trough cross strata; locally contains molluscan fossils	
r	Nonmarine conglomerate, sandstone, pebbly mudstone, mudstone, and siltstone; contains plant fossils, palesols and locally a basal breccia	

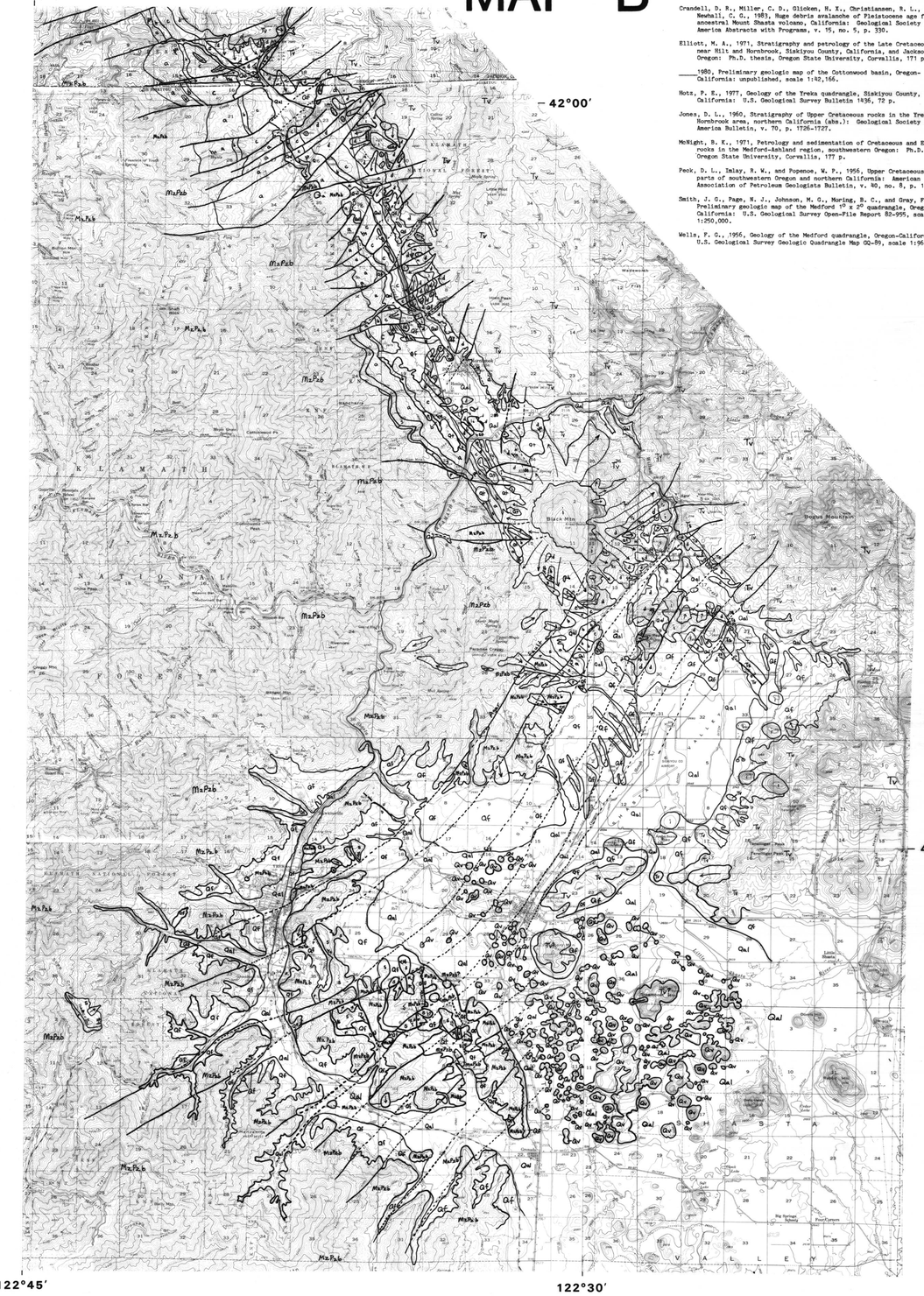
MzPzb — Basement rocks of Klamath Mountains; includes granite and related intrusive rocks, metasedimentary and metavolcanic rocks, ophiolitic rocks — MESOZOIC AND PALEOZOIC

Fault, dotted where inferred or covered

CORRELATION DIAGRAM FOR THE HORNBROOK FM.

Peck and others [1956]	Jones [1960] and unpub. mapping	Elliot [1971]	Elliot [1980]	This map
Tertiary volcanic and sedimentary rocks (Ts+Tv)				
Member VI	Unit C, sandstone lens	Bailey Hill Mudstone Member	Unit D	d, m
Member V, Member IV				d, l_2, l_3
Member III	Unit B	Lower arenaceous member	Unit C	c
Member II	Unit A	Bailey Mudstone Member	Unit B	b
Member I		Lower arenaceous member	Unit A	a, s
			Non-marine unit	r
Basement rocks (MzPzb)				

MAP B



References Cited

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GEOLOGY MAPPED IN 1982

Base from U.S. Geological Survey
Ashland, Copco, Gold Hill,
Lakecreek, Lake Shastina, Medford,
Talent, Treka, 1954; Hornbrook, 1955

TRUE NORTH — MAGNETIC NORTH — APPROXIMATE MEAN DECLINATION, 1984

SCALE 1:62,500
0 1 2 3 4 MILES
0 1 2 3 4 5 KILOMETERS
CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature.

GEOLOGIC MAP OF THE OUTCROP AREA OF THE HORNBROOK FORMATION, OREGON AND CALIFORNIA

By
Tor H. Nilsen, Greg M. Barats, Monty A. Elliott, and David L. Jones

1983