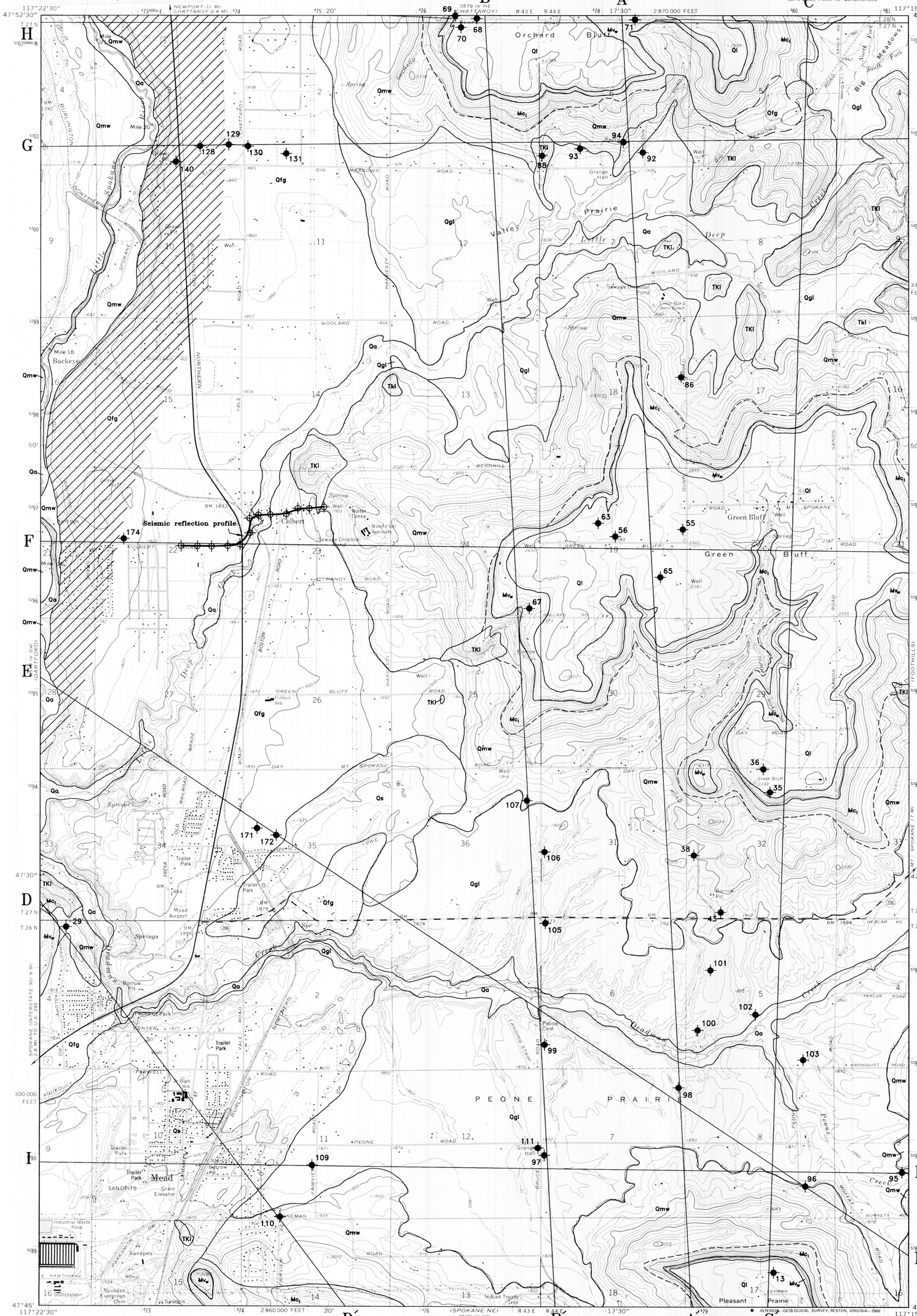
WASHINGTON STATE DEPARTMENT OF
Natural Resources
Jennifer M. Belcher · Commissioner of Public Lands
Kaleen Cottingham · Supervisor

MEAD QUADRANGLE
WASHINGTON—SPOKANE CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
SE/4 FAIRCHILD AIR FORCE BASE 15' QUADRANGLE



WASHINGTON DIVISION OF GEOLOGY AND EARTH RESOURCES
Raymond Lasmanis, State Geologist

Plate 1 of 2
OPEN FILE REPORT 97-3
GEOLOGIC MAP OF THE MEAD 7.5-MINUTE QUADRANGLE, SPOKANE COUNTY, WASHINGTON

GEOLOGIC MAP OF THE MEAD 7.5-MINUTE QUADRANGLE, SPOKANE COUNTY, WASHINGTON

by
Robert E. Derkey
1997

GEOLOGIC UNITS

QUATERNARY SEDIMENTS

Qa Alluvium (Holocene) – Stream deposits consisting of silt, sand, and gravel in present-day stream channels and on flood plains.

Qs Sand deposits (Holocene and Pleistocene) – Windblown deposits of predominantly fine, well-sorted, sub- to well-rounded sand. Grains are predominantly lithic fragments that range from medium gray to nearly white.

Ql Loess (Holocene and Pleistocene) – Light- to medium-brown (darker where wet or recently plowed), unstratified, windblown silt and clay; locally includes small amounts of fine sand and volcanic ash; rarely exceeds 3 ft in thickness in the Mead quadrangle.

Qmw Mass-wasting deposits (Holocene to Pliocene?) – Heterogeneous deposits consisting of Wanapum Basalt (Priest Rapids Member), Latah Formation, and Missoula flood deposits. Basalt clasts are gray to dark gray and commonly angular and range from blocks as much as 25 ft across to cobbles and pebbles. Debris flow deposits consist of sand- to pebble-size materials and clasts (predominantly cobbles) of basalt. Cohesive landslide blocks of Latah Formation are typically very light gray to yellowish gray. Lenses of sand and gravel are locally interspersed with the mass-wasting deposits.

Qfg Missoula flood deposits (Pleistocene) – Light-brown to yellowish gray, poorly to moderately well sorted, massive to thick bedded, stratified mixture of boulders, cobbles, pebbles, and sand. Stippling shows area of predominantly coarser gravels.

Qgl Glaciolacustrine deposits (Pleistocene) – Very light gray to pinkish or yellowish gray, predominantly silt and sand deposited in glacial Lake Columbia; contains 4- to 6-in.-thick clay interbeds, scattered ice-rafted boulders, and some sand and gravel lenses.

TERTIARY SEDIMENATARY AND VOLCANIC ROCKS

Columbia River Basalt Group

Mv_w Wanapum Basalt, Priest Rapids Member (middle Miocene) – Fine-grained, dense, dark-gray to black, aphyric basalt flows of reversed magnetic polarity.

Mc_l Latah Formation (middle Miocene) – Light-gray to yellowish gray, poorly indurated deposits of finely laminated siltstone, claystone, and minor sandstone and minor iron-oxide cemented, angular, medium- to coarse-grained arkosic sandstone.

TERTIARY AND OLDER VOLCANIC ROCKS

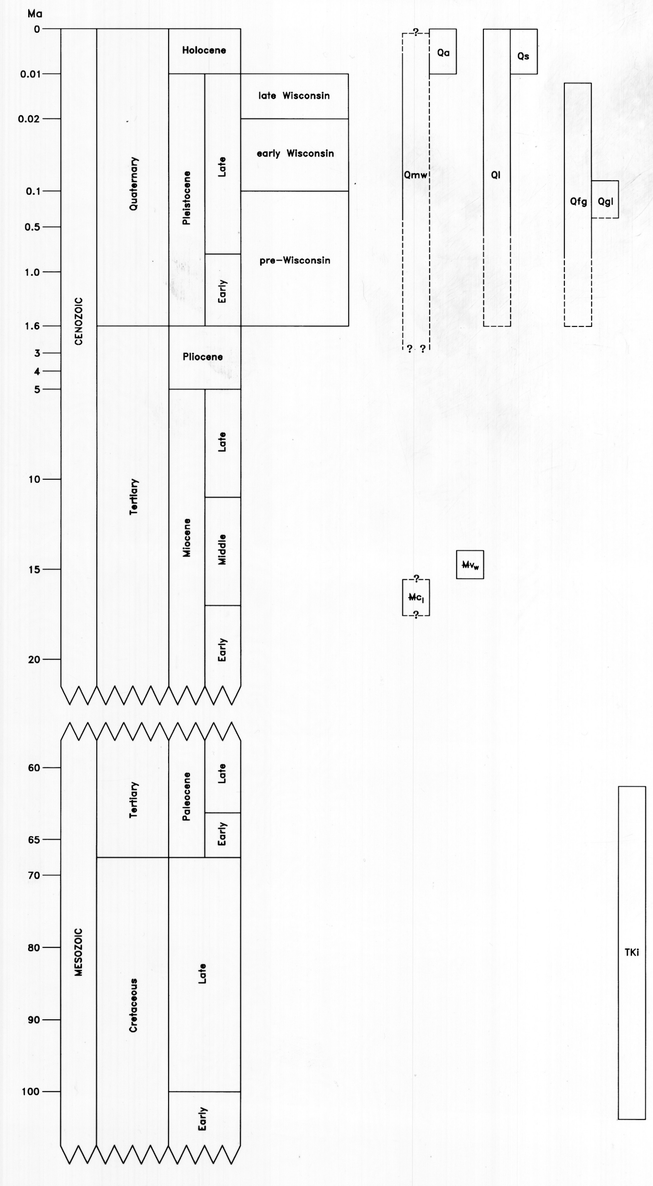
TKi Granitic intrusive rock (Tertiary–Cretaceous) – Biotite-muscovite granite, alaskite, and aplite and pegmatite veins, veinlets, and irregular bodies.

EXPLANATION

Contacts – Long dash where approximately located, short dash where inferred.

36 Water well and mineral exploration test drill holes. Numbers are used to correspond with well locations on Plate 2.

CORELATION DIAGRAM



Base map produced by U.S. Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1972. Field checked 1973

Polyconic projection. 1927 North American datum
10,000-foot grid based on Washington coordinate system, north zone

1000-meter Universal Transverse Mercator grid ticks, zone 10

Map revision from aerial photographs taken 1982 and other sources. Map edited 1986. Not field checked

Geologic data capture by Beatrice B. Lockaff, Spokane, County Water Quality Management Program

Cartographic design and production by Carl F. T. Harris, Washington Division of Geology and Earth Resources

UTM GRID AND 1988 MAGNETIC NORTH DECLINATION AT CENTER OF MAP

SCALE 1:24,000

CONTOUR INTERVAL 20 FEET
NATIONAL GEODEDIC VERTICAL DATUM 1929

QUADRANGLE LOCATION

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1986