



Preliminary Geologic Map of the Corvallis 7.5' Quadrangle, Benton and Linn Counties, Oregon

2008

OPEN-FILE REPORT O-08-14

Preliminary Geologic Maps of the Corvallis, Wren, and Marys Peak 7.5' Quadrangles,
Benton, Lincoln, and Linn Counties, Oregon

By Thomas J. Wiley

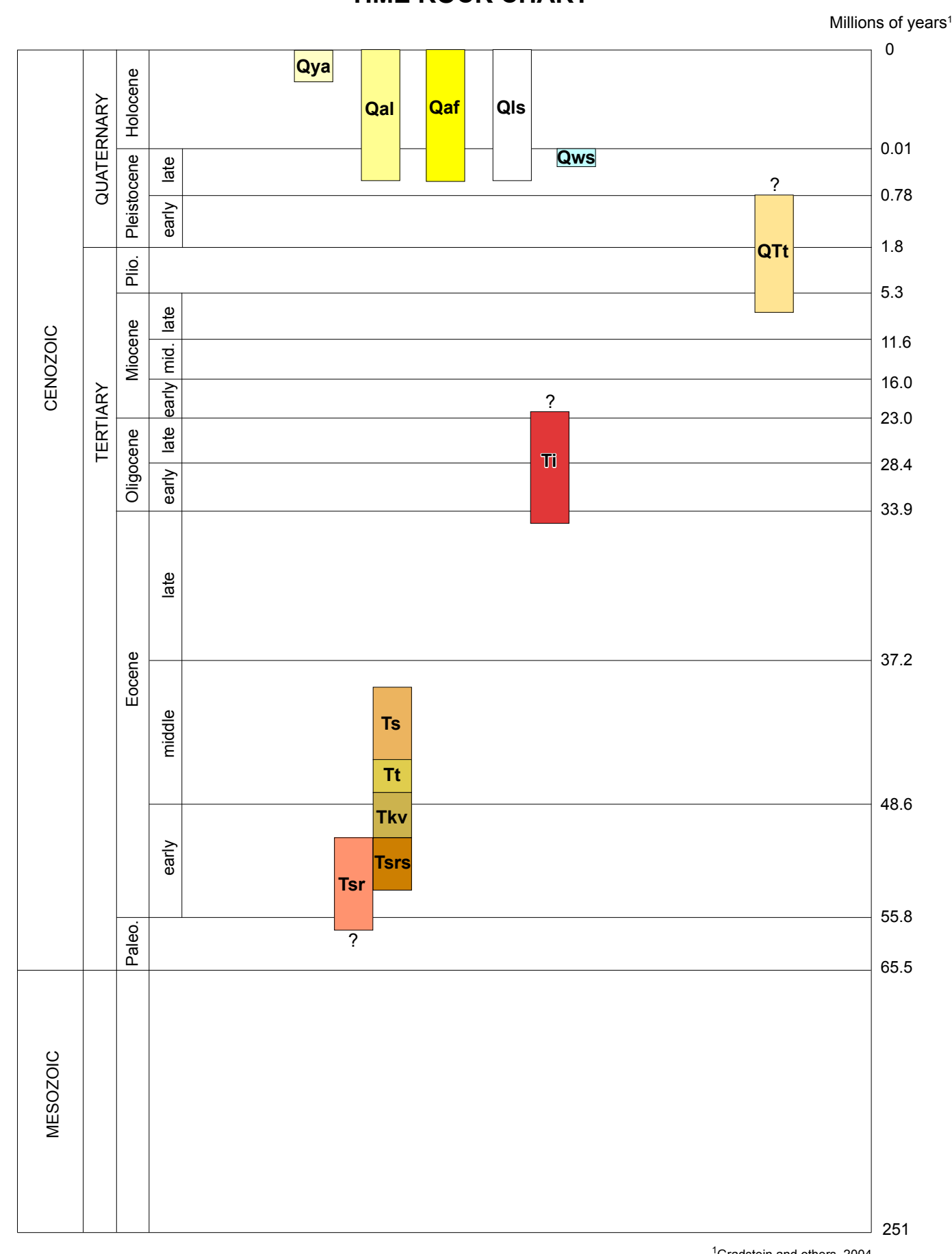
This research was supported by the U.S. Geological Survey, National Cooperative
Geologic Mapping Program, under USGS award number 07HQAG0078.

PLATE 1

NOTICE

This map cannot serve as a substitute for site-specific investigations by qualified practitioners.
Site-specific data may give results that differ from those shown on the maps. The views and
conclusions contained in this document are those of the authors and should not be interpreted as
necessarily representing the official policies, either expressed or implied, of the U.S. government.

TIME ROCK CHART



EXPLANATION OF MAP UNITS

See accompanying report text for full descriptions of units.

Surficial Deposits

- Qal** Alluvium, undivided (Holocene and upper Pleistocene) – sand, gravel, and silt deposited along streams. Locally divided to show:
- Qya** Young alluvium (Holocene) – sand, gravel, and silt deposited by modern streams
- Qaf** Alluvial fan deposits (Holocene and upper Pleistocene) – sand, gravel, boulders, and woody debris in fan-shaped accumulations at slope breaks
- Qls** Landslide deposits (Holocene and upper Pleistocene) – boulders, gravel, sand, mud, and large coherent blocks of adjacent bedrock lithologies
- Qws** Willamette Silt (upper Pleistocene, 12.7–15 ka) – thin- to medium-bedded rhythmites of silt, sandy silt, and silty clay
- QTt** Terrace deposits (lower Pleistocene? to Miocene) – sand, clay, and gravel, locally consolidated or cemented to form sandstone, claystone, and conglomerate

Unconformity

- Ts** Spencer Formation (middle Eocene) – micaceous arkosic and lithic sandstone, siltstone, and lithic arkose

Local unconformity

- Tt** Tyee Formation (middle Eocene) – micaceous sandstone and less common mudstone as turbidites
- Tkv** Kings Valley Siltstone (middle and lower Eocene) – siltstone, mudstone, lithic to tuffaceous sandstone, and rare conglomerate and tuff
- Tsr** Siletz River Volcanics (lower Eocene and Paleocene?) – basalt and basaltic-andesite lava flows and related rocks. Locally divided to show:
- Tsrs** Sedimentary rocks (lower Eocene) – sandstone, siltstone, and less common tuffaceous sandstone and conglomerate

Intrusive Rocks

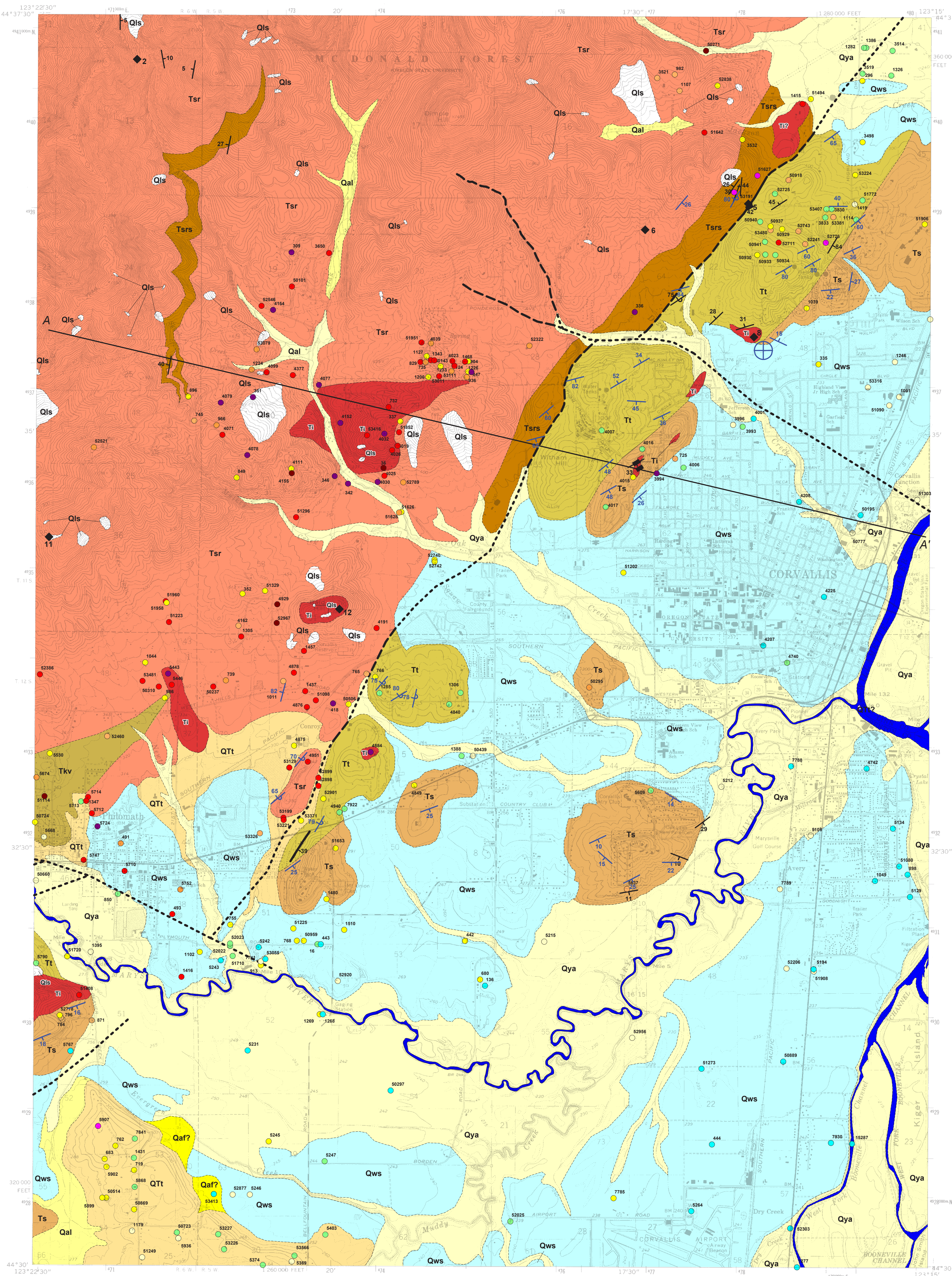
- Ti** Intrusive rocks (early Miocene? to late Eocene) – mafic to intermediate, fine- to medium-grained intrusive rocks ranging from gabbro to granodiorite and basalt to basaltic andesite

EXPLANATION OF SYMBOLS

- Fault, dashed where approximate, dotted where concealed
- Contact, dashed where approximate, dotted where concealed
- Line of cross section showing start and end points
- Map number for geochemical sample; refer to Table 1 in accompanying text report
- Map number for radiometric date; refer to Table 1 in accompanying text report
- Strike and dip of inclined bedding
- Strike and dip of inclined bedding, compiled from older mapping (see reference list in accompanying text)
- Strike and dip of overturned bedding
- Strike and dip of overturned bedding, compiled from older mapping (see reference list in accompanying text)
- Horizontal bedding, compiled from older mapping (see reference list in accompanying text)
- Strike and dip of intrusive dike
- Approximate location of water well. Number, used with four-letter county code, is Oregon Water Resources Department well log number. Color indicates important intervals logged by the driller; matches the map formation color where appropriate. Other colors indicate: light blue - blue clay; tan - sand or gravel; green - shale, siltstone, or claystone; yellow - sandstone; orange - sandstone and "basalt" (igneous rock); magenta - conglomerate; purple - "sandrock" (coarse-grained intrusive, flow, or sandstone); red - "basalt" (igneous rock).

REFERENCE

Gradstein, F. M., Ogg, J. G., and Smith, A. G., eds., 2004, A geologic time scale 2004; London, Cambridge University Press, 610 p.



Base map by United States Geological Survey

Control by USGS, USGAS, and State of Oregon

Topography compiled from aerial photographs taken 1967

Field checked 1999; photorevised 1998

Universal Transverse Mercator Projection, Zone 10

Grid: 1000m Universal Transverse Mercator grid ticks

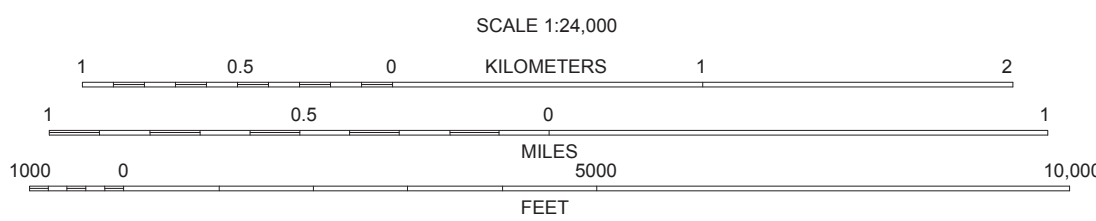
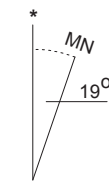
10,000 ft state grid ticks, Oregon north zone

UTM grid declination: 0.0022 degrees west

1985 magnetic north declination: 19 degrees east

Vertical datum: National Geodetic Vertical Datum of 1929

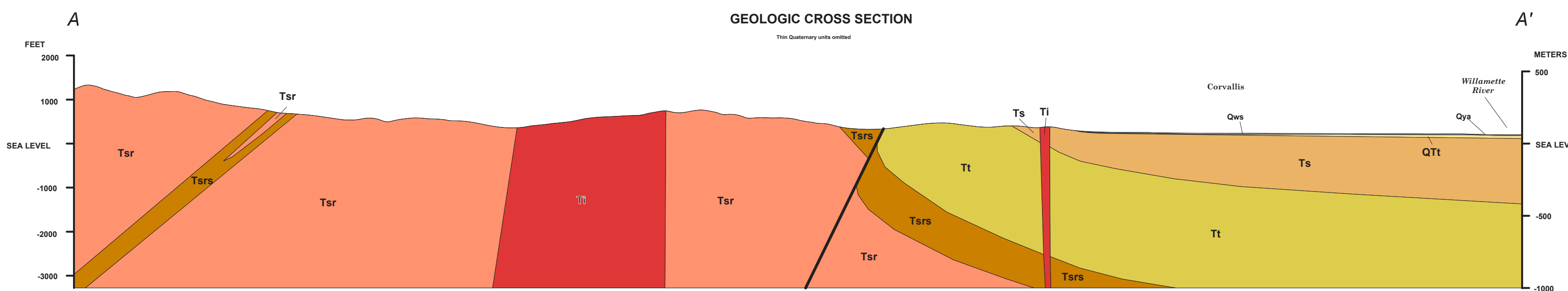
Horizontal datum: 1927 North American Datum



1	2	3
4	5	6
7	8	9

ADJOINING 7.5' QUADRANGLE NAMES

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Field work conducted 2007-2008



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