Geologic Map of Lewis and Clark National Historical Park

Oregon and Washington

National Park Service
U.S. Department of the Interior

Geologic Resources Inventory
Natural Resource Stewardship and Science

Geologic Units

- Water
- Qbs Beach sand (Holocene)
- Qf Fluvial and estuarine deposits (Holocene)
- Qal Alluvium (Holocene)
- Qal1 Columbia River alluvium (Holocene)
- Qls Landslide deposits (Holocene and Pleistocene)
- Qds Eolian dune sand (Holocene and Pleistocene)
- Qt Terrace deposits (Holocene and Pleistocene)
- Tg1 Gnat Creek formation, terrestrial sedimentary rocks (middle Miocene)

Wanapum Basalt

- Tfs Frenchman Springs Member, subaerial basalt flows (middle Miocene)
- Tfsp Frenchman Springs Member, pillow palagonite complexes (middle Miocene)
- Tfsi Frenchman Springs Member, intrusive basalt (middle Miocene)

Astoria Formation

- Tab Bald Ridge unit (middle Miocene)
- Tac Cannon Beach member, turbidite (middle and early Miocene)
- Tac3 Cannon Beach member, mudstone (middle Miocene)
- Tac2 Cannon Beach member, slope mudstone (middle Miocene)
- Tac1 Cannon Beach member, slope channel sandstone (middle and early Miocene)
- Tay Youngs Bay member, slope mudstone (middle and early Miocene)
- Tay2 Youngs Bay member, sandstone (middle and early Miocene)
- Tay1 Youngs Bay member, sandstone (middle and early Miocene)
- Taw Wickiup Mountain member, shelf sandstone (middle and early Miocene)
- Tawu Wickiup Mountain member, upper part, sandstone and mudstone (middle and early Miocene)
- Tan Naselle unit (middle and early Miocene)

Grande Ronde Basalt

- Tgrp Pillow palagonite complexes (middle Miocene)
- Tgri Intrusive basalt (middle Miocene)
- Tgrb Intrusive breccia (middle Miocene)
- Tib Basalt (middle Miocene)

Smuggler Cove Formation

- Tsc2 Upper member (Oligocene and late Eocene)
- Tsc1 Lower member (late Eocene)
- Tlc Lincoln Creek Formation (early Miocene to late Eocene)
- Tlck Lincoln Creek Formation, sandstone unit at Knappton (early Oligocene or late Eocene)
- Tsb Siltstone at Shoalwater Bay (late and late middle Eocene)
- Top Siltstone and sandstone at O'Meara Point (late and late middle Eocene)
- Tcp Siltstone of Cliff Point (late? and middle Eocene)
- Tsm Sandstone at Megler (middle Eocene)
- Tbr Basalt lapilli breccia and flows at Fort Columbia (middle Eocene)
- Tbf Basalt lapilli breccia and flows at Fort Columbia, pillow basalt flows (middle Eocene)
- Tig Gabbro and basalt (Eocene)
- Tc Crescent Formation (middle Eocene)
- Unmapped

Legend is limited to features in map layout extent.

North 0 2 Kilometers 0 2 Miles

This map displays geologic map data compiled by the National Park Service Geologic Resources Inventory. It is not a substitute for site-specific investigations.

Source Maps

Ma, L., I.P. Madin, K.V. Olson, R.J. Watzig, R.E. Wells, A.R. Niem and G.R. Priest. 2009. Oregon geologic data compilation (OGDC)- release 5, Oregon Department of Geology and Mineral Industries, Portland, Oregon.

Niem, A.R. and W.A. Niem. 1985. Geologic map of the Astoria Basin, Clatsop and northwestern most Tillamook Counties, Northwest Oregon in Niem, A.R., W.A. Niem, M.W. Martin, M.M. Kadri, and D.R. McKeel Correlation of exploration wells, Astoria Basin, Oregon (scale 1:100,000). Oil and Gas Investigations 14; plate 1 of 2. Oregon Department of Geology and Mineral Industries, Portland, Oregon.

Wells, R.E. 1989. Geologic map of the Cape Disappointment-Naselle River area, Pacific and Wahkiakum Counties, Washington (scale 1:62,500). Miscellaneous Investigations Series Map I-1832. US Geological Survey, Reston, Virginia.

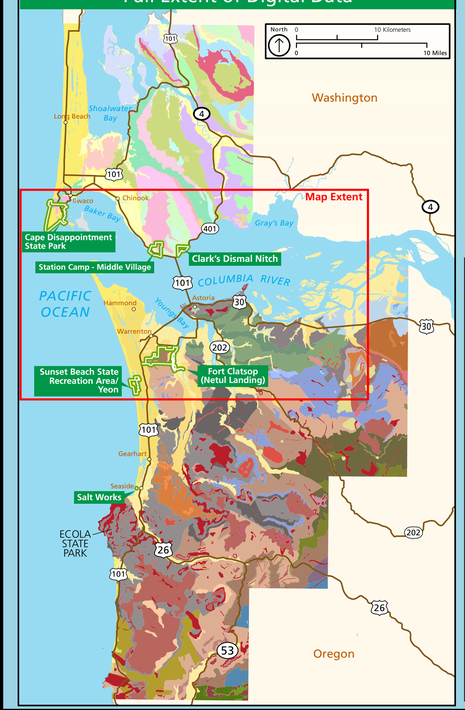
Source Scales 1:62,500 & 1:100,000

According to US National Map accuracy standards, features are within 32m (104 ft) (1:62,500) and 50 m (163 ft) (1:100,000) of their true location.

Poster Layout
Dalton Meyer and Georgia Hybels (Colorado State University)
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GRI Data Date
September 2012

All Geologic Resources Inventory geologic map data and publications are available at http://go.nps.gov/gripubs.

Full Extent of Digital Data



NPS Boundary

Infrastructure
- City
- Point of interest
- Roads

Geologic Cross Section Lines
A A'

Folds- Dashed where inferred, dotted where concealed, "?" where queried
- Anticline
- Syncline

Faults- Dashed where approximate, dotted where concealed, "?" where queried; U indicates upthrown side, D indicates downthrown side, Bar and ball indicates downthrown side
- Thrust fault
- Normal fault
- Right-lateral strike-slip fault
- Left-lateral strike-slip fault
- Unknown offset/displacement

Geologic Contacts
- Approximate
- Concealed
- Approximate and queried
- Concealed and queried
- Quadrangle boundary
- Water or shoreline
- Water or shoreline, approximate
- Subaqueous (inferred)