



By
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EXPLANATION

- Region boundary
- Subregion boundary
- Crest of the Cascade Range and boundary between eastern and western Oregon

0 60 MILES
0 60 KILOMETERS

FIGURE 2.—Physiographic regions of Oregon (modified from Dicken, 1965).

EPHCH	BASALT STRATIGRAPHY		SEDIMENT STRATIGRAPHY	HYDROGEOLOGIC UNITS
HOLOCENE PLEISTOCENE			Alluvium Eolian and glacio-fluvial deposits	Overburden (Overburden aquifer where saturated)
PLIOCENE and MIOCENE			Darles Group Onowatch Formation Akkai Canyon Formation McKay Formation (Paropoli and others, 1981)	Volcaniclastic and fluvi-lacustrine deposits
MIOCENE	Columbia River Basalt Group	<p>Saddle Mountains Member</p> <p>Elephant Mountain-Pomona Interbed</p> <p>Pomona Member</p> <p>Pomona-Ulmastla Interbed</p> <p>Ulmastla Member</p> <p>Ulmastla-Wanapum Interbed</p> <p>Saddle Mountains-Wanapum Interbed</p> <p>Wanapum Fluvial Member</p> <p>Rosa Member</p> <p>Frenchman Springs Member</p> <p>Wanapum Grande Ronde Interbed</p> <p>Grande Ronde Basalt</p> <p>Picture Gorge Basalt</p> <p>Imnaha Basalt</p>	<p>Clatsop Formation</p> <p>(Nomenclature not formalized)</p>	<p>Saddle Mountains Unit</p> <p>Wanapum Unit</p> <p>Grande Ronde Unit</p>
PRE-MIOCENE		Pre-Columbia River Basalt Group rocks		

FIGURE 3.— Generalized stratigraphy of the Oregon part of the Columbia Plateau.

Flow top	<p>Vesicular basalt or cinder</p> <p>Phyre A fine-grained, containing phenocrysts, igneous rock. A microphenocryst is a phenocryst visible only under magnification, but is still relatively large compared to the groundmass.</p> <p>Phyric Fine-grained, containing phenocrysts.</p> <p>Rhyolite A silicate material composed primarily of aluminum, sodium, and potassium.</p> <p>Reiotecstone An epoch of geologic time covering the span of between 2 million and about 10,000 years ago. Commonly referred to as the "Tex Age".</p> <p>Riotec An epoch of geologic time extending from about 5.3 million years ago to about 2-3 million years ago.</p>
Entablature	<p>Quaternary An epoch of geologic time extending from about 2 to 3 million years ago to present.</p> <p>Scud Fragments of rocks that originate from weathering of rocks and is transported and deposited by air, water, or ice.</p> <p>Shear zone A tabular zone of rock that has been crushed and brecciated by many parallel fractures due to shear strain.</p> <p>Syncline A fold, the core of which contains the stratigraphically youngest rocks. It is convex upward.</p> <p>Tertiary Geologic time period covering the span of time between 63 and about 2 million years ago.</p>
Colonnade	<p>Tuff Volcanic ash and dust deposited that may contain up to 50 percent of sediment such as silt or clay.</p> <p>Vesicular A rock texture characterized by abundant holes (vesicles) formed by the expansion of gases during the fluid stage of lava.</p> <p>Welded Fragmented rock materials formed by the extrusion of magma.</p>

FIGURE 4.—Idealized basalt intraflow structures.

For the convenience of readers unfamiliar with some of the terminology in this report, the following glossary has been prepared.

Algal bloom. A concentration of algae, usually of one or two species, in the water column or on the bottom. The algal bloom may be composed of a stream or other body of running water during the summer months, or of a lake or reservoir during the winter months. A dark-colored, green, or brown extracellular mass composed primarily of algae and organic and/or inorganic material composed primarily of iron and manganese. The color of these materials is the stratigraphically older rocks, and is not a sign of algal bloom.

Algal mat. A thin layer of a fine-grained sporeless rock, lacking pseudomorphs, composed of a single species of algae, or a mixture of several species. The texture sufficient to sustain permeable material to 3004 significant

Multiply	By	To obtain
feet (ft)	0.3048	meters (m)
miles (mi)	1.609	kilometers (km)
square miles (mi ²)	2.590	square kilometers (km ²)

National Geodetic Vertical Datum of 1929 (NGVD of 1929): The reference to which relief features and altitude data of the conterminous United States and Alaska are related is the National Geodetic Vertical Datum of 1929, a geoidic datum derived from a general adjustment of the first-order level nets of both the United States and Canada and formerly called "Mean Sea Level". NGVD of 1929 is referred to as sea level in this report.

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1990