INTRODUCTION

The map depicts bedrock and surficial geological units in the Lewisville quadrangle, Jefferson and Bonneville counties, Idaho. The quadrangle lies along the western edge of the Snake River Plain, about 30 km west of Idaho Falls. The map area is underlain by a series of basalt flows and volcaniclastic sediments that form the Snake River Plain. The map area is about 23 km wide and 36 km long. A 1:24,000-scale topographic base map was used as the base for the geologic map. The map is a 1:24,000-scale product of the U.S. Geological Survey. Field work was conducted in 2007, and the map was completed in 2011.

GEOLGIC HISTORY

The map area is underlain by a series of basalt flows and volcaniclastic sediments that form the Snake River Plain. The Snake River Plain is a large, volcanic, and geologically significant feature in the western United States. The Snake River Plain is a result of the past 12 million years of volcanic activity and is composed of basalt flows, volcaniclastic sediments, and alluvial deposits.

SOURCES OF DATA

The map was based upon field work conducted in 2007, supplemented and constrained by numerous data sources. These included published reports, unpublished data held at the U.S. Geological Survey, and personal observations of the authors, field work conducted in 2007, and the map was completed in 2011.

DESCRIPTION OF MAP UNITS

BEDROCK UNITS

The map units are shown as follows:

1. Alluvium of the Snake River, Holocene: This unit consists of alluvium deposited by the Snake River and its tributaries.
2. Alluvium of the South Fork Snake River, Holocene: This unit consists of alluvium deposited by the South Fork Snake River.
3. Basalt of Shattuck Butte, Pinedale: This unit consists of basalt flows erupted from Shattuck Butte.
4. Basalt of Little Rock, Bull Lake: This unit consists of basalt flows erupted from Little Rock.
5. Alluvium of the South Fork Snake River, Pleistocene: This unit consists of alluvium deposited by the South Fork Snake River.
6. Alluvium of the Snake River, Pleistocene: This unit consists of alluvium deposited by the Snake River.
7. Alluvium of the South Fork Snake River, Wisconsinian: This unit consists of alluvium deposited by the South Fork Snake River.
8. Alluvium of the Snake River, Wisconsinian: This unit consists of alluvium deposited by the Snake River.

SOURCES OF DATES

The map was based upon field work conducted in 2007, supplemented and constrained by numerous data sources. These included published reports, unpublished data held at the U.S. Geological Survey, and personal observations of the authors, field work conducted in 2007, and the map was completed in 2011.

REFERENCES


ACKNOWLEDGMENTS

The map was funded in part by the U.S. Geological Survey and Jane S. Freed at the Idaho Geological Survey's Digital Mapping Lab.

BUTTES

The map area is underlain by a series of basalt flows and volcaniclastic sediments that form the Snake River Plain. The map area is about 23 km wide and 36 km long. A 1:24,000-scale topographic base map was used as the base for the geologic map. The map is a 1:24,000-scale product of the U.S. Geological Survey. Field work was conducted in 2007, and the map was completed in 2011.

Geologic Map of the Lewisville Quadrangle, Jefferson and Bonneville Counties, Idaho

William M. Phillips and John A. Welhan

2011