



**DESCRIPTION OF MAP UNITS**

**UNCONSOLIDATED DEPOSITS**

Q1 LAKELIKE DEPOSITS (CONFORMER)—Shale and talus deposits, generally in areas of ultramafic rock. Only larger taluslike deposits are shown.

**IGNEOUS ROCKS**

J6 GABBRO (J6BSS1C)—Medium to coarse-grained foliated to massive diorite, ranging in composition from granodiorite to hornblende-gabbro. Includes hornblende, actinolite, muscovite, chlorite, and hematite. Contains 10% to 20% orthopyroxene but are volumetrically insignificant.

J6 DIORITE (J6BSS1C)—Granite diorite and hornblende-gabbro diorite. Contains quartz, hornblende, actinolite, muscovite, chlorite, and hematite. Hornblende predominates over quartz in more siliceous varieties. Accessory magnetite is present in some places.

J6 QUARTZ DIORITE (J6BSS1C)—Pyroxene quartz diorite and hornblende quartz diorite. Biotite is present in some places.

J6 TONALITE (J6BSS1C)—Pyroxene tonalite and hornblende tonalite. Biotite is present in some places.

J6 GRANODIORITE (J6BSS1C)—Hornblende-biotite granodiorite, containing hornblende, actinolite, muscovite, chlorite, and hematite. Contains 10% to 20% orthopyroxene but are volumetrically insignificant.

J6 GRANITE (J6BSS1C)—Hornblende-biotite granite. Biotite predominates over hornblende in the more siliceous varieties.

**METAMORPHIC ROCKS**

U10 INTERMEDIATE TO FELSIC METAMORPHIC ROCKS (U10BSS1C AND U10BSS2C)—Foliated and massive predominantly mafic, felsic, and minor mafic rocks in the southern part of wilderness. Includes hornblende, actinolite, muscovite, chlorite, and hematite. Hornblende predominates over quartz in more siliceous varieties. Accessory magnetite is present in some places.

U10 METAMORPHIC SCHIST AND METACLASTIC ROCKS (U10BSS1C AND U10BSS2C)—Includes hornblende schist, hornblende schist, and hornblende schist. Hornblende predominates over quartz in more siliceous varieties. Accessory magnetite is present in some places.

U10 METAMORPHIC SLATE (U10BSS1C)—Includes hornblende schist, hornblende schist, and hornblende schist. Hornblende predominates over quartz in more siliceous varieties. Accessory magnetite is present in some places.

U10 METAMORPHIC GNEISS (U10BSS1C)—Includes hornblende schist, hornblende schist, and hornblende schist. Hornblende predominates over quartz in more siliceous varieties. Accessory magnetite is present in some places.

**TECTONICALLY DISRUPTED ROCKS**

MSV MESOZOIC AND TERTIARY ROCKS, UNDEFORMED (MSVBSS1C)—Schist with predominantly mafic protomylonite but locally quartzite and metachert. Hornblende-biotite-plagioclase-quartz schist, hornblende schist, and hornblende schist. Hornblende predominates over quartz in more siliceous varieties. Accessory magnetite is present in some places.

MSV UNDEFORMED METAMORPHIC ROCKS (MSVBSS1C)—Includes hornblende schist, hornblende schist, and hornblende schist. Hornblende predominates over quartz in more siliceous varieties. Accessory magnetite is present in some places.

**CONTACTS**

CONFORMER—Contact where approximately isoclinal, better where conformable.

FACIES—Contact where approximately isoclinal, but not full on northeast side.

THRUST FAULT—Contact where approximately isoclinal, better where conformable or inverted, normal where overturned.

GRADATIONAL CONTACT WITHIN WILDERNESS

APPROXIMATE BOUNDARY OF WILDERNESS

**STUDIES RELATED TO WILDERNESS**

The Wilderness Act (Public Law 90-249, Sept. 3, 1968) and related laws require the U.S. Geological Survey to determine mineral resource potential, and to place terrace deposits along the North Fork Salmon River, Oregon, and the Marble Mountain Wilderness, California, in the Marble Mountain Wilderness.

**INTRODUCTION**

The Marble Mountain Wilderness has a low potential for placer gold, and marble terrace deposits along the North Fork Salmon River, Oregon, and the Marble Mountain Wilderness, California, in the Marble Mountain Wilderness.

**DESCRIPTION**

The Marble Mountain Wilderness is in the north-central Klamath Mountains of northern California. The wilderness encompasses an area of about 114,000 acres of steep rugged terrain between the Salmon and Klamath Rivers, at elevations ranging from 1000 to 8000 ft. The wilderness is the northern and western parts of the area accessible via separate routes from the Salmon River road leading to the south and west from Lake Highway 1 (the Klamath River Highway) near the town of Happy Camp and from the Salt River river via the town of Fort Jones and State Highway 3. The southern boundary is reached via road and trail from the town of Fort Jones and the town of Happy Camp.

The Liberty mining district contains gold-bearing gravel deposits within the study area. It is a small area of about 100 acres, located about 10 miles west of the Marble Mountain Wilderness. The Liberty mining district is a small area of about 100 acres, located about 10 miles west of the Marble Mountain Wilderness. The Liberty mining district is a small area of about 100 acres, located about 10 miles west of the Marble Mountain Wilderness.

**ASSESSMENT OF MINERAL RESOURCE POTENTIAL**

Geologic, geophysical, and geophysical evidence indicates that the Marble Mountain Wilderness has a low potential for placer gold and chrome, marble resources with low potential are also present. Shaded areas on this map indicate areas of low potential for placer gold and chrome, marble resources with low potential are also present. Shaded areas on this map indicate areas of low potential for placer gold and chrome, marble resources with low potential are also present.

**CONCLUSIONS**

The Liberty mining district contains gold-bearing gravel deposits within the study area. It is a small area of about 100 acres, located about 10 miles west of the Marble Mountain Wilderness. The Liberty mining district is a small area of about 100 acres, located about 10 miles west of the Marble Mountain Wilderness.

**REFERENCES CITED**

Adrian, R. H., Smith, D. B., and others, 1982, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1983, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1984, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1985, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1986, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1987, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1988, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1989, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1990, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1991, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1992, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1993, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1994, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1995, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1996, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1997, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1998, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 1999, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2000, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2001, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2002, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2003, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2004, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2005, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2006, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2007, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2008, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2009, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2010, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2011, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2012, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2013, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2014, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2015, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2016, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2017, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2018, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2019, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2020, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2021, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2022, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2023, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2024, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

Adrian, R. H., Smith, D. B., and others, 2025, Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1452-B, scale 1:48,000.

# MINERAL RESOURCE POTENTIAL MAP OF THE MARBLE MOUNTAIN WILDERNESS, SISKIYOU COUNTY, CALIFORNIA

By  
Mary M. Donato<sup>1</sup>, William N. Hale<sup>2</sup>, Robert C. Jachens<sup>1</sup>, and David B. Smith<sup>1</sup>  
1983

Exploratory pamphlet accompanies map  
U.S. Geological Survey, U.S. Bureau of Mines  
Bureau of Geology, Reston, VA—1983  
For sale by Branch of Distribution, U.S. Geological Survey,  
Box 21306, Federal Center, Denver, CO 80221