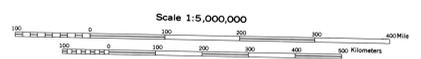




EXPLANATION

- 1. Dashed line: INFERRED IRON PROVINCE BOUNDARY—NUMBER INDEX IN TABLE 1
- 2. Solid line: AREAS OF BROWN IRON OCCURRENCE
- 3. Dotted line: GENERALIZED BOUNDARY OF MAJOR GEOLOGIC REGION OF THE CONTERMINOUS UNITED STATES
- 4. Stippled area: AREA OF PROTEROZOIC, Y AND Z AGE, (PRECAMBRIAN) ROCK
- 5. Cross-hatched area: AREA OF BICHAN AND PROTEROZOIC, X AGE, (PRECAMBRIAN) ROCK
- 6. Dotted line: INFERRED BOUNDARY SEPARATING ACCRETED OCEANIC AND ISLAND-ARC CRUST OF PHANEROZOIC AGE, WHICH LIES SUBPARALLEL WITH THE PACIFIC AND ATLANTIC OCEAN BASINS, AND INTERIOR OLD CONTINENT CRUST, COMPOSED OF PRECAMBRIAN BASEMENT AND PHANEROZOIC COVER ROCKS
- 7. Solid line: LARGE DEPOSIT WHOSE PAST PRODUCTION, MINABLE MINERALS, AND (OR) POTENTIALLY MINABLE MATERIALS GENERALLY EXCEEDS 50 MILLION LONG TONS (AND 50 MILLION METRIC TONS) OF IRON ORE
- 8. Solid circle: TYPE A, ACTIVE MINE—HAD SUBSTANTIAL PRODUCTION IN 1975
- 9. Open circle: TYPE B, INACTIVE MINE—A PAST PRODUCER NOW MINED OUT, TEMPORARILY SUBECONOMIC DEPOSIT THAT CONTAINS POTENTIALLY MINABLE MATERIAL, OR CURRENT LOW PRODUCER NOT RECOGNIZED IN THE SURVEY
- 10. Dotted circle: SMALL DEPOSIT OR OCCURRENCE WHOSE PRODUCTION AND (OR) POTENTIALLY MINABLE MATERIALS RANGES FROM ABOUT BUT UNQUALIFIED UP TO 50 MILLION SHORT TONS OF ORE
- 11. Solid triangle: TYPE C, ACTIVE OR INACTIVE LOCALITY—PRESENT OR POSSIBLE PRODUCER AND (OR) UNQUALIFIED IRON OCCURRENCE



PRELIMINARY MAP OF IRON PROVINCES IN THE CONTERMINOUS UNITED STATES

By
Harry Klemic and E. W. Tooker

1979

INTRODUCTION

Iron, the most used and essential of all metals, accounts for 5 percent of the Earth's crust and is abundant and concentrated in a variety of crustal rocks within a designated area in the conterminous United States. The purpose of this map is to show the distribution of iron provinces in the conterminous United States. Relative positions of the major iron provinces are shown on the map. The map is intended to provide a general overview of the iron provinces in the conterminous United States. It is not intended to provide a detailed description of the iron provinces. The map is intended to provide a general overview of the iron provinces in the conterminous United States. It is not intended to provide a detailed description of the iron provinces.

DISCUSSION OF MAP FEATURES

The iron provinces map summarizes current knowledge about the location, size, and general distribution of iron provinces in the conterminous United States. The map is based on the compilation of information from a variety of sources, including geological maps, reports, and other published information. The map is intended to provide a general overview of the iron provinces in the conterminous United States. It is not intended to provide a detailed description of the iron provinces.

IRON PROVINCES

Iron deposits also occur in igneous rocks or are closely associated spatially with them. Magnetite deposits of igneous rocks are located in various parts of the conterminous United States. The map shows the distribution of iron provinces in the conterminous United States. It is not intended to provide a detailed description of the iron provinces.

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Table 1.—Location, general geologic characteristics, and preliminary resource estimates for iron provinces in the conterminous United States

No.	Province	Area	Main type of deposit ^{1/2}	Preliminary estimates of resource potential ^{1/2}			Status of geologic resource information
				High	Medium	Low	
1	Minnesota	Mesabi Range	I, IV, IX	X	—	—	X
2	Michigan	Marquette-Menominee-Iron River	I, IX	X	—	—	X
3	Missouri	Pa. Ridge - Pilot Knob	IX	—	—	—	X
4	Delaware	Seaboard	IX	—	—	—	X
5	West Virginia	Atlanta City, and Harbottle	I, IV, VI	X	—	—	X
6	Ohio	Laramie Range	IX	—	—	—	X
7	Utah	Iron Springs	V	X	—	—	X
8	Idaho	Boomer	V, VI	—	—	—	X
9	Wyoming	Utah Mine and western	VI	—	—	—	X
10	Montana	Black River Falls	IX	—	—	—	X
11	North Carolina	Barrett	IX	—	—	—	X
12	Pennsylvania	Cornwall - Grace	V, VI	—	—	—	X
13	New Jersey	—	—	—	—	—	X
14	New York	Taconic	IX	—	—	—	X
15	Virginia	Northampton Mountain	IX, V, VI	—	—	—	X
16	West Virginia	West Central	IX	—	—	—	X
17	Nevada	Arctostaphylos	IX, IX	—	—	—	X
18	California	Southwest Desert	V, VI	—	—	—	X
19	Wisconsin	Black River Falls	IX	—	—	—	X
20	Nebraska	Nebraska Great Basin	VII	—	—	—	X
21	Arizona	Central	I, III, V, VI	—	—	—	X
22	New Mexico	Central	II	—	—	—	X
23	Nevada	Central	IX	—	—	—	X
24	Montana	Central	IX	—	—	—	X
25	North Carolina	Central	IX	—	—	—	X
26	Texas	Central	IX	—	—	—	X
27	Alabama	Central	IX	—	—	—	X
28	Alabama, Georgia, and Tennessee	Northwestern Clinch Belt	IX	—	—	—	X
29	Alabama, Georgia, and Tennessee	Northwestern Clinch Belt	IX	—	—	—	X
30	North Carolina, and Virginia	Central	IX	—	—	—	X
31	Virginia, West Virginia, Maryland, and Pennsylvania	Northwestern Clinch Belt	IX	—	—	—	X
32	Washington	North-central	IX	—	—	—	X
33	Oregon	North-central	IX	—	—	—	X
34	Idaho, Washington, and Nevada	North-central	IX	—	—	—	X
35	Idaho	North-central	IX	—	—	—	X
36	Idaho	Central	IX, IX	—	—	—	X

Footnotes:

^{1/2}Main geologic types of deposits (Klemic, Tooker, and Wright, 1987)

^{2/2}Based on preliminary estimates of resource potential

^{3/3}High estimate indicates the presence or expectation of more than one large type of deposit + 100 million tons of iron ore based on the presence of type C deposits and (or) occurrence alone.

^{4/4}Background information relating to this map and where in the Atlas of Metal and Nonmetal Provinces in the Conterminous United States, in publication at Washington, D.C., October, 1979, is available from the charge from the U.S. Geological Survey, Menlo Park, California, 94025.