THE GEOLOGICAL SURVEY OF WYOMING
Gary B. Glass, State Geologist

MAP SERIES 21

MS-21

CONSTRUCTION MATERIALS MAP OF WYOMING

1986

Compiled by
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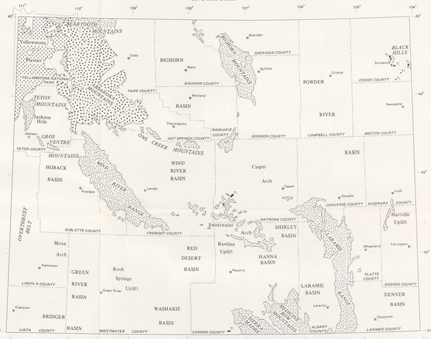
INDEX MAP



EXPLANATION

- Quaternary volcanic rocks
- Tertiary volcanic rocks
- Cenozoic, Mesozoic, and Paleozoic sedimentary rocks
- Tertiary intrusive rocks
- Precambrian rocks

Modified from American Association of Petroleum Geologists Geological Highway Map No. 5, 1972.

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EXPLANATION

AGGREGATE RAW MATERIALS (EXCLUDING STONE)

WINDBLOWN SAND
Recent stabilized and unstabilized windblown sand deposits.

ALLUVIAL SAND AND GRAVEL
Recent stream deposits containing varying proportions of sand, gravel, silt, and clay.

GLACIAL SAND AND GRAVEL
Pleistocene glacial moraine, outwash, and related deposits sometimes containing a high proportion of gravel and coarser material.

TERRACE SAND AND GRAVEL
Quaternary terrace gravel with a variable proportion of finer material.

OLDER SAND AND GRAVEL
Includes Pleistocene to Pliocene gravel in Jackson Hole, Pliocene terraces in the Overthrust Belt, Pliocene to Miocene deposits in southeastern Wyoming, Oligocene Bishop Conglomerate in southwestern Wyoming, Eocene conglomerate in southern Wyoming, Eocene Kingsbury Conglomerate in northcentral Wyoming, and Paleocene Pinyon Conglomerate in southwestern Wyoming.

SAND AND GRAVEL OF VARIOUS ORIGINS
Undifferentiated sand and gravel deposits of various origins, mapped in and near Yellowstone National Park, and in isolated areas in the rest of Wyoming.

BAKED AND FUSED ROCK
Rock baked or melted by naturally-ignited coal fires, sometimes called clinker or scoria; useful for aggregate in areas lacking other aggregate sources. Also used as an ornamental rock in landscaping.

STONE

GRANITE
Locally suitable for dimension, decorative, and ornamental stone. Also used as crushed aggregate and ballast. Includes light-colored rock types not lithologically defined as granite, such as quartz monzonite, granodiorite, phonolite, and nepheline syenite.

LARAMIE RANGE ANORTHOSITE AND SYENITE
Locally suitable for monument, dimension, decorative and ornamental stone, and crushed aggregate.

LIMESTONE AND DOLOMITE
Includes Permian Minnekahta Limestone, parts of Permian-Pennsylvanian Casper and Minnelusa Formations, Mississippian Madison and Pahasapa Limestones, Mississippian-Devonian Guernsey Formation, Ordovician Bighorn Dolomite, and isolated occurrences in Precambrian metamorphic rocks.

BASALT
Locally suitable for dimension stone and crushed aggregate. Found in and immediately south of Yellowstone National Park and west of the Sierra Madre.

OTHER DIMENSION, DECORATIVE, AND ORNAMENTAL STONE
Includes marble, quartzite, sandstone, travertine, and leucite-bearing igneous rocks.

GYPSUM

GYPSUM-BEARING STRATA
Used in cement, drywall, plaster, and other construction applications. Includes Jurassic Gypsum Spring, Triassic Chugwater, Triassic-Permian Spearfish and Goose Egg, and Permian Satanka Formations.

MISCELLANEOUS SYMBOLS

- OCCURRENCE OF SPECIALTY OR MISCELLANEOUS CONSTRUCTION MATERIAL
- OCCURRENCE OF CONSTRUCTION MATERIAL OF SMALL EXTENT (NOT TO SCALE) COLOR DENOTES TYPE OF MATERIAL.
- ACTIVE QUARRY
- INACTIVE QUARRY
- ACTIVE MILL
- PIT OR QUARRY FOR SAND, GRAVEL, OR UNSPECIFIED AGGREGATE.
- PIT OR QUARRY FOR BAKED AND FUSED ROCK AGGREGATE
- PIT OR QUARRY FOR DOLOMITE AGGREGATE
- PIT OR QUARRY FOR GRANITE AGGREGATE
- PIT OR QUARRY FOR LIMESTONE AGGREGATE
- PIT OR QUARRY FOR QUARTZITE AGGREGATE

FORMATION NAMES OR ROCK TYPES

CENOZOIC		MESOZOIC		PALEOZOIC		PRECAMBRIAN	
Qu	Quaternary undivided	Klw	Lewis Shale	Pp	Phosphoria Formation	pCu	Precambrian undivided
Qa	Quaternary alluvium	Kmv	Mesaverde Group	Pf	Fortelle Limestone	pCan	Anorthosite
Qt	Quaternary terrace deposit	Kc	Cody Shale	Ps	Satanka Shale	pCgr	Granite
Qbs	Quaternary hot spring deposit	Kav	Adaville Formation	Pm	Minnekahta Limestone	pCmk	Mafic dikes
Qi	Quaternary alkalic igneous rocks.	Kn	Niobrara Formation	PPc	Casper Formation	pCms	Metasedimentary rocks
Tu	Tertiary undivided	Kf	Frontier Formation	PPh	Hartville Formation	pCgn	Gneiss
Tnp	North Park Formation	Kbr	Bear River Formation	PPm	Minnelusa Formation		
Tsr	Split Rock Formation	Kcv	Cloverly Formation	Mm	Madison Limestone		
Twi	Wiggins Formation	Kik	Inyan Kara Group	Mp	Pahasapa Limestone		
Twb	Wagon Bed Formation	Jm	Morrison Formation	MDg	Guernsey Formation		
Ta	Arikaree Formation	Js	Sundance Formation	Ob	Bighorn Dolomite		
Tw	Wasatch Formation	Jg	Gypsum Spring Formation	Cf	Flathead Sandstone		
Tg	Green River Formation	Tse	Alcova Limestone				
Thg	Fort Union Formation	Tc	Chugwater Formation				
Tha	Hanna Formation	TrPs	Spearfish Formation				
Tv	Tertiary volcanics undivided	TrPg	Goose Egg Formation				
Ti	Tertiary intrusives undivided						

SELECTED REFERENCES

Case, J.C., and others, 1984, Windblown sand deposits of Wyoming as plotted on the 1°x2° maps of Wyoming: Geological Survey of Wyoming Open File Reports 84-1 through 84-12, scale 1:250,000.

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Harris, R.E., and Meyer, J.E., 1985, Selected references on construction materials in Wyoming: Geological Survey of Wyoming Open File Report 85-2, 13 p.

Love, J.D., and Christiansen, A.C., 1985, Geologic map of Wyoming: U.S. Geological Survey map, scale 1:500,000.

Osterwald, F.W., Osterwald, D.B., Long, J.S., and Wilson, W.H., 1966, Mineral resources of Wyoming: Geological Survey of Wyoming Bulletin 50, 287 p.

Wyoming Highway Department published and unpublished sand and gravel inventory reports. (See Geological Survey of Wyoming Open File Report 85-2 for complete listing.)

SCALE 1:500,000
1 inch equals approximately 8 miles
10 0 10 20 30 40 Miles
10 0 10 20 30 40 50 Kilometers

Base map modified from U.S. Geological Survey, 1966 Edition.
Cartography by Phyllis A. Ranz