

EXPLANATION

- GENERALIZED AREA OF TERTIARY IGNEOUS BEDROCK
- GENERALIZED AREA OF PRECAMBRIAN BEDROCK

For symbols and outlines below, chemical symbol shows dominant mineralization. If known, the classification and host formation, sediment type, or rock type are shown in parentheses.

- DISTRICT Geologically defined area of scattered mines and mineralization. Outline shows the extent of similar favorable geology.
- MINERALIZED AREA Similar mineralization encountered on surface and/or in drill holes.
- SURFACE MINE For uranium mines, total production exceeded 1,000 tons of ore (inactive unless otherwise noted).
- SURFACE URANIUM MINE Total production less than 1,000 tons of ore (inactive unless otherwise noted).
- UNDERGROUND MINE (inactive unless otherwise noted).
- IN-SITU URANIUM OPERATION (inactive unless otherwise noted).
- LAPIDARY MATERIAL OCCURRENCE Dot indicates occurrence of small extent, not to scale.
- METALLIC MINERAL OCCURRENCE OR PROSPECT Dot indicates occurrence or prospect of small extent, not to scale.
- METALLIC MINERAL OCCURRENCE IN DRILL HOLE
- GOLD ANOMALY IN STREAM SEDIMENT SAMPLE Greater than 0.2 ppm gold; from Albert, 1986.
- URANIUM OR THORIUM OCCURRENCE OR PROSPECT Or rock sample with at least 0.005% uranium or 0.010% thorium. Dot indicates occurrence or prospect of small extent, not to scale.
- URANIUM OR THORIUM OCCURRENCE IN DRILL HOLE Or rock sample with at least 0.005% uranium or 0.010% thorium.
- HIGH SURFACE RADIOACTIVITY At least 10 times background.
- RADIOACTIVITY ANOMALY IN DRILL HOLE Greater than 300 API units.

CHEMICAL SYMBOLS

Ag	Silver	Fe	Iron	Ta	Tantalum
As	Arsenic	Mn	Manganese	Th	Thorium
Au	Gold	Mo	Molybdenum	Ti	Titanium
Ba	Barium	Nb	Niobium	U	Uranium
Co	Cobalt	Pb	Lead	V	Vanadium
Cr	Chromium	Ra	Radium	W	Tungsten
Cu	Copper	REE	Rare earth elements	Zn	Zinc
F	Fluorite	Sn	Tin		

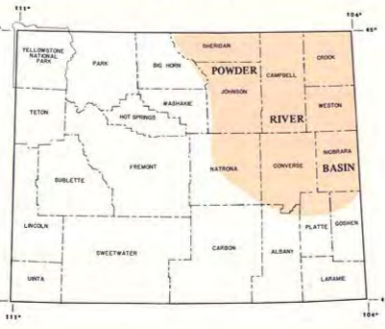
CLASSIFICATION OF MINERALIZATION

IN IGNEOUS ROCKS	OR	IN SEDIMENTARY ROCKS	BS
Orthomagmatic	SE	Black shales	RS
Submarine exhalative	MH	Residual deposits	PC
Magmatic hydrothermal	AM	Recent placers	BP
Autometasomatic		Paleobeach placers	FP
		Coal	CL
IN METAMORPHIC ROCKS	MR	Redox	RX
Redox	SV	Carbonate rocks	CB
Veins	MT		
Syngenetic			
IN IGNEOUS, METAMORPHIC, OR SEDIMENTARY ROCKS (Descriptive terms)	IV	MINERALIZATION RELATED TO UNCONFORMITIES	UC
fracture veins	SZ	VEINS OF UNKNOWN ORIGIN	VN
shear zone deposits	FR		
fracture fillings	RP		
replacement			

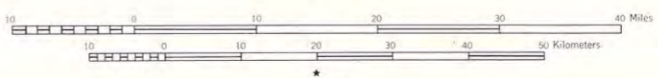
FORMATION NAMES, SEDIMENT TYPES, AND ROCK TYPES

CENOZOIC	Qa	PALEOZOIC	PIPc
Quaternary alluvium	Qtu	Casper Formation	PIPp
Quaternary and Tertiary, undivided	Tu	Hartville Formation	PIPt
Tertiary, undivided	Tmo	Tensleep Sandstone	PIPm
Miocene and Oligocene rocks	Tak	Minnelusa Formation	IPMa
Arikaree Formation	Twr	Amisden Formation	IPMm
White River Formation	Tw	Madison Limestone	IPMs
Wasatch Formation	Ttu	Pathassa Limestone	IPMq
Fort Union Formation	Tv	Guernsey Formation	IPOb
Tertiary volcanic rocks	Tt	Bighorn Dolomite	IPCl
Tertiary igneous rocks	Tai	Flathead Sandstone	IPCb
Tertiary alkalic intrusives	Tsy		
Tertiary syenite	Ttr	PRECAMBRIAN	PC
Tertiary trachyte		undivided	PCas
		amphibolite schist or gneiss	PCbs
MESOZOIC	Kj	biotite schist	PCgn
Lance Formation	Kh	granitic gneiss	PCpg
Fox Hills Sandstone	Kl	granite pegmatite	PCgr
Lewis Shale	Kp	granitoid rocks	PCgd
Pierre Shale	Kmv	granodioritic rocks	PCis
Mesaverde Formation	Kmvt	hematite schist	PCil
Teapot Sandstone Member	Kc	iron formation	PCmb
Cody Shale	Ki	marble	PCmi
Frontier Formation	Knc	mafic metaigneous rocks	PCmd
Newcastle Sandstone	Kkv	mafic dikes	PCms
Cloverly Formation	Kik	metasedimentary rocks	PCsc
Inyan Kara Group	Klr	schist	PCum
Fall River Formation	Klk	ultramafic rocks	
Lakota Formation	Jm	quartzite or	
Morrison Formation	Jn	quartz-pebble conglomerate	PCqz
Sundance Formation	Js		

LOCATION MAP



SCALE 1:500,000



SELECTED REFERENCES

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METALLIC AND RADIOACTIVE MINERALS AND LAPIDARY MATERIALS MAP OF THE POWDER RIVER BASIN AND ADJACENT UPLIFTS, WYOMING

by W. Dan Hausel, Ray E. Harris, Jon K. King, and Wayne M. Sutherland

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