

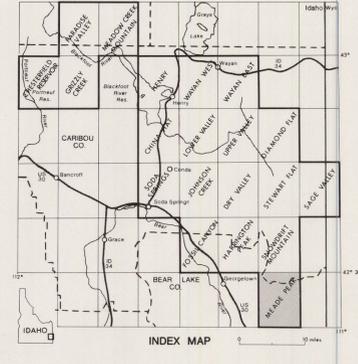
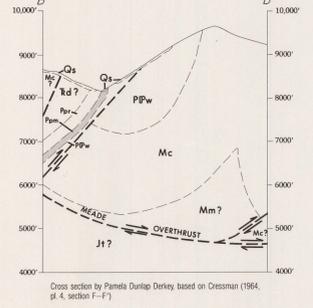
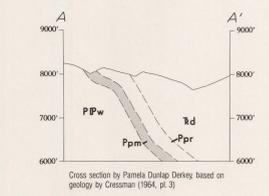
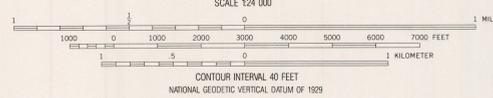


CORRELATION OF MAP UNITS		
Qa	Qs	QUATERNARY
QTs	QTb	
QTs	QTb	QUATERNARY OR TERTIARY
Tsl	Tw	
Tw	Jt	TERTIARY
Jt	Jt	JURASSIC
Tt	Td	
Tt	Td	TRIASSIC
Ppr	Ppm	PERMIAN
PPw	PPw	
PPw	PPw	PERMIAN AND PENNSYLVANIAN
Mc	Mc	MISSISSIPPIAN
Mm	Mm	

- DESCRIPTION OF MAP UNITS**
- Qa** ALLUVIUM (QUATERNARY) - Unconsolidated sedimentary deposits along stream valleys; may include colluvium in Fossil Canyon quadrangle and hillwash and alluvial fans in Dry Valley quadrangle
 - Qs** SURFICIAL DEPOSITS (QUATERNARY) - Includes colluvium, older alluvium, hillwash, talus, alluvial-fan, landslide, mudflow, and boulder deposits
 - QTs** SEDIMENTARY DEPOSITS (QUATERNARY AND TERTIARY) - Undivided surficial deposits and Salt Lake Formation
 - QTb** BASALT (PLEISTOCENE OR PIOCENE) - Olivine and augite-olivine basalt
 - Tsl** SALT LAKE FORMATION (PLIOCENE AND MIOCENE) - Limestone, sandstone, and chert conglomerate and rhyolitic tuff
 - Tw** WASATCH FORMATION (LOWER EOCENE) - Red conglomerate and sandstone
 - Jt** TWIN CREEK LIMESTONE (MIDDLE JURASSIC) - Limestone, siltstone, and sandstone
 - Tt** THAYNES LIMESTONE (LOWER TRIASSIC) - Sandstone, limestone, siltstone, and shale. As mapped, may include the Lanes Tongue of the Ankaeh Formation
 - Td** DINWOODY FORMATION (LOWER TRIASSIC) - Siltstone, shale, and limestone. As mapped, may include tongue of the Woodside Shale. Approximately 1,200 to 1,600 ft thick
 - Ppr** PHOSPHORIA FORMATION (PERMIAN) - Includes: Rex, Chert Member (Lower Permian) - Chert. As mapped, may include cherty shale member of the Phosphoria Formation and lentils of the Franson Member of the Park City Formation. Approximately 280 ft thick
 - Ppm** Meade Peak Phosphatic Shale Member (Lower Permian) - Phosphorite and mudstone. Approximately 150 to 200 ft thick
 - PPw** WELLS FORMATION (PERMIAN AND PENNSYLVANIAN) - Sandstone and limestone. As mapped, may include the Grandeur Tongue of the Park City Formation. Approximately 1,500 to 1,600 ft thick
 - Mc** CHESTERFIELD RANGE GROUP (UPPER AND LOWER MISSISSIPPIAN) - Limestone, sandstone, and siltstone. Approximately 1,600 to 2,000 ft thick
 - Mm** MADISON LIMESTONE (UPPER AND LOWER MISSISSIPPIAN) - Limestone. Approximately 1,000 to 1,500 ft thick

- CONTACT** - Dashed where approximately located, gradational, indefinite or inferred; dotted where concealed; queried where doubtful
 - FAULT** - Dashed where approximately located or inferred; dotted where concealed; queried where doubtful. U, upthrown side; D, downthrown side; arrows show relative horizontal movement
 - THRUST FAULT** - Sawtooth on upper plate. Dashed where approximately located or inferred; dotted where concealed; queried where doubtful
 - ANTICLINE** - Showing crestline. Dashed where approximately located or inferred; dotted where concealed; queried where doubtful
 - SYNCLINE** - Showing troughline. Dashed where approximately located or inferred; dotted where concealed; queried where doubtful
 - OVERTURNED ANTICLINE** - Showing direction of dip of limbs. Dashed where approximately located or inferred; dotted where concealed; queried where doubtful
 - OVERTURNED SYNCLINE** - Showing direction of dip of limbs. Dashed where approximately located or inferred; dotted where concealed; queried where doubtful
 - STRIKE AND DIP OF BEDS** - Inclined; overturned; vertical; horizontal
 - PHOSPHATE DRILL HOLE** - For computing resource tonnages
 - PHOSPHATE TRENCH**
 - PHOSPHATE MINE PIT BOUNDARY** - As of September 1979
- The geology shown includes: 1) the trace of the top and bottom contacts of the Phosphoria Formation and where data are available the top and bottom contacts of the Meade Peak Phosphatic Shale Member of the Phosphoria Formation; 2) appropriate structural data required for construction of structure contours, overburden isopachs, and resource blocks; and 3) other structural data necessary for understanding the regional geologic picture.
- FAULT SEPARATION** - No calculated resource
 - FAULT OVERLAP** - Twice calculated resource if covered by 1500 ft. or less of overburden
 - FAULT TRACE AT DEPTH**
 - STRUCTURE CONTOURS** - On top of the Meade Peak Phosphatic Shale Member of the Phosphoria Formation. Contour interval 200 feet. Approximately located; dashed where contours are projected past control points or where structure is uncertain
 - Index Contour** - 6000
 - Intermediate Contour** - 5800
- Map units and symbols shown with an asterisk are not on this map.

Base from U.S. Geological Survey, 1970



**STRUCTURE CONTOURS ON THE TOP OF THE MEADE PEAK PHOSPHATIC SHALE MEMBER
MAPS SHOWING SELECTED GEOLOGY AND PHOSPHATE RESOURCES OF THE MEADE PEAK QUADRANGLE,
BEAR LAKE AND CARIBOU COUNTIES, IDAHO**

By
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Idaho Bureau of Mines and Geology
1985

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