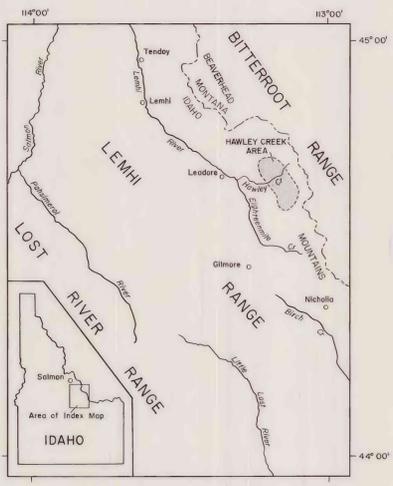
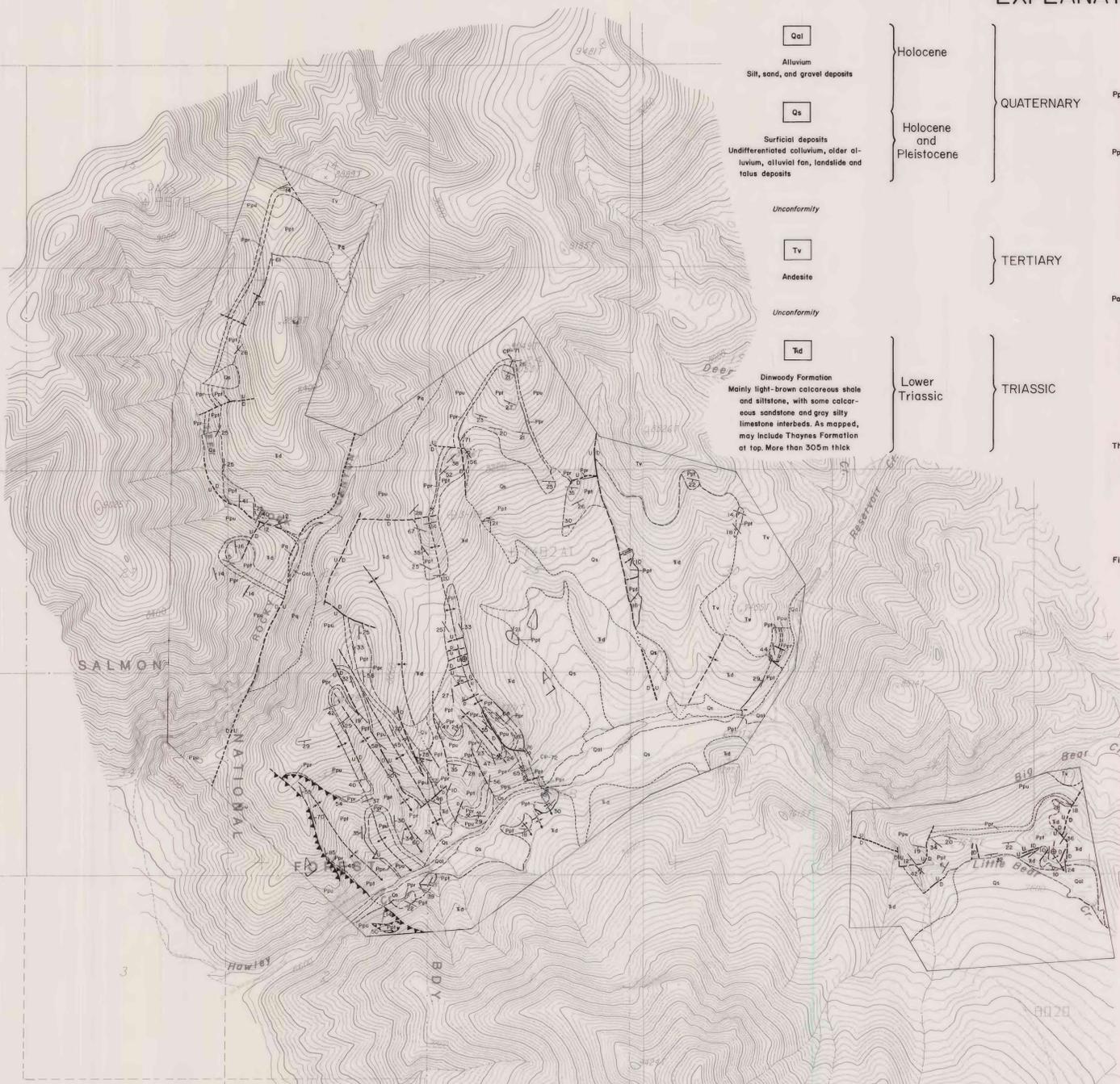


R.27 E. R.28 E.

EXPLANATION

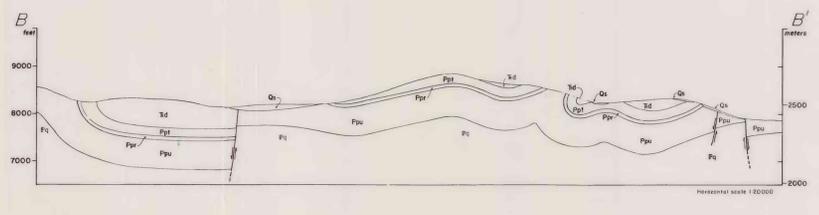
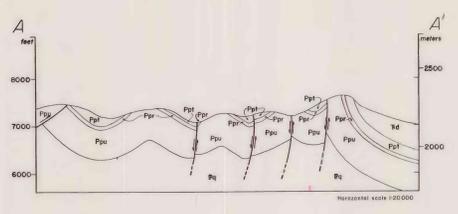
- |   |   |  |   |
|---|---|--|---|
| <p><b>Qal</b><br/>Alluvium<br/>Silt, sand, and gravel deposits</p> <p><b>Qs</b><br/>Surficial deposits<br/>Undifferentiated colluvium, older alluvium, alluvial fan, landslide and talus deposits</p> <p>Unconformity</p> <p><b>Tv</b><br/>Andesite</p> <p>Unconformity</p> <p><b>Td</b><br/>Dinwoody Formation<br/>Mainly light-brown calcareous shale and siltstone, with some calcareous sandstone and gray silty limestone interbeds. As mapped, may include Thoynes Formation at top. More than 305m thick</p> | <p>Holocene</p> <p>Holocene and Pleistocene</p> <p>TERTIARY</p> <p>Lower Triassic</p> | <p><b>Ppt</b><br/>Ppr</p> <p>Phosphoria Formation<br/>Ppt, Tosi Chert Member; very thick-bedded, medium to dark gray chert, with a few minor sandy chert lenses and sandstone interbeds. About 46 to 86m thick<br/>Ppr, Raton Phosphatic Shale Member; mainly thin to thick-bedded, gray to brown phosphatic mudstone, silty phosphorite, phosphorite, mudstone and siltstone, with a few sandy siltstone and sandy dolomite interbeds. About 22m thick</p> <p><b>Ppu</b><br/>Park City Formation, undivided<br/>Mainly thick-bedded dolomite with limestone and chert interbeds. Silty, sandy dolomite and dolomitic, silty sandstone units near top; abundant black chert nodules at top. About 192m thick</p> <p><b>Pq</b><br/>Quadrant Formation<br/>Thin to thick-bedded calcareous quartzite; silty, sandy limestone and minor dolomite. About 205m thick</p> <p><b>Ok</b><br/>Kinnikinnick Quartzite<br/>Fine-grained, silica-cemented quartzite. About 92-244m thick</p> | <p>QUATERNARY</p> <p>PERMIAN</p> <p>TRIASSIC</p> <p>PENNSYLVANIAN</p> <p>ORDOVICIAN</p> |
|---|---|--|---|

- CONTACT - Long dashed where approximately located; short dashed where inferred; dotted where concealed
- FAULT - Long dashed where approximately located; short dashed where inferred; dotted where concealed. U, upthrown side; D, downthrown side; arrows indicate relative horizontal movement
- THRUST FAULT - Long dashed where approximately located; short dashed where inferred; dotted where concealed. Sawtooth on upper plate
- ANTICLINE - Showing crestline and direction of plunge. Long dashed where approximately located; short dashed where inferred; dotted where concealed
- OVERTURNED ANTICLINE - Showing direction of dip of limbs. Long dashed where approximately located
- SYNCLINE - Showing troughline and direction of plunge. Long dashed where approximately located; short dashed where inferred; dotted where concealed
- OVERTURNED SYNCLINE - Showing direction of dip of limbs. Long dashed where approximately located; dotted where concealed
- STRIKE AND DIP OF BEDS -  
 20° Inclined  
 50° Overturned  
 ⊕ Horizontal
- ★ PHOSPHATE PROSPECT PIT
- ⊥ PHOSPHATE TRENCH



0 10 20 30 Miles  
0 10 20 30 40 Kilometers

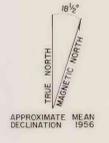
LOCATION OF HAWLEY CREEK AREA



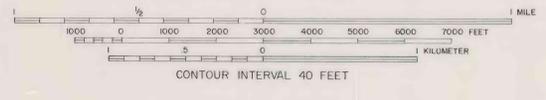
R.27 E. R.28 E.

44°35'00"  
113°05'00"

Topographic base from FBO SAL 8-18-74  
Idaho, C Zone - 10,000 Ft  
UTM Zone 12 - 1000 Meter  
Transv Merc Proj  
Scale 1:24,000  
Prepared by US Geological Survey  
Morrison Lake Special Project



SCALE 1:20000



Geology mapped by Peter Oberlindacher and R. David Howland, assisted by William C. Burkett, 1977

PLATE I - GEOLOGIC MAP AND SECTIONS OF PARTS OF THE HAWLEY CREEK AREA, LEMHI COUNTY, IDAHO