

Studies on Idaho's Geology and Minerals Released by the U.S. Bureau of Mines and the U.S. Geological Survey for 1982

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STUDIES ON IDAHO'S GEOLOGY AND MINERALS
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U.S. GEOLOGICAL SURVEY FOR 1982

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Sources for this compilation were the monthly lists of new publications from the U.S. Bureau of Mines and the U.S. Geological Survey from January 1982 through July 1983.

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U.S. BUREAU OF MINES

MINERAL INDUSTRY SURVEYS

The mineral industry of Idaho in 1981 (Annual, Preliminary). 2 p.

MINERAL LAND ASSESSMENT REPORTS

MLA 41-82. Mineral resources of the Hells Canyon study area, Adams, Idaho, and Nez Perce Counties, Idaho and Wallowa County, Oregon, by Terry J. Close, Francis E. Federspiel, and Andrew Leszczkowski. 1982. 32 p.

MLA 102-82. Mineral investigation of the Selway-Bitterroot Wilderness (FS), Idaho County, Idaho and Missoula and Ravalli Counties, Montana, by Nicholas T. Zilka and Michael M. Hamilton. 1982. 14 p.

MLA 126-82. Mineral investigation of the Mount Naomi RARE II further planning area, Cache County, Utah, and Franklin County, Idaho, by Philip R. Bigsby. 1982. 12 p.

OPEN-FILE REPORTS (available from NTIS)

OFR 138-82. Borehole mining of phosphate ores, by Lowell E. Scott. August 1981. 217 p.

OFR 195-82. The microbiological flocculation of phosphate and potash slimes, by Corale L. Brierley and Guy R. Lanza. February 1982. 131 p.

JOURNAL ARTICLES BY BUREAU AUTHORS

OP 32-82. Thermal energy recovery for deep mines, by Edward D. Thimons and Robert N. Torbin: Presented at First Mine Ventilation Symposium, University of Alabama, Tuscaloosa, Alabama, March 29-31, 1982; Engineering and Mining Journal, v. 183, no. 5, May 1982. p. 98-99.

OP 46-82. A resin-loaded paper X-ray fluorescence method of determining uranium in phosphate materials, by Benjamin W. Haynes, Jerome Zabronsky, and David L. Neylan: Proceedings of the 30th Annual Conference on Applications of X-Ray Analysis, Denver, Colorado, August 3-7. 1981. p. 107-111.

REPORTS OF INVESTIGATIONS

- RI 8695. Vanadium roast-leach dissolution from western phosphate tailings, by J. H. Russell, D. G. Collins, and A. R. Rule. 1982. 19 p.
- RI 8701. A case history of a major rock burst, by Fred Leighton. 1982. 14 p.
- RI 8728. Application of carbonate-silica flotation techniques to western phosphate materials, by A. R. Rule, D. E. Larson, and C. B. Daellenbach. 1982. 13 p.

USBM STUDIES ON IDAHO PRIOR TO 1982

Preprints

- The mineral industry of Idaho, (1980) by D. W. Lockard, M. M. Miller and E. H. Bennett. 13 p.

U.S. GEOLOGICAL SURVEY

BULLETIN

- B 1497. Mineral resources of the Boulder-Pioneer Wilderness study area, Blaine and Custer Counties, Idaho, by the U.S. Geological Survey and U.S. Bureau of Mines. 1981 (1982). 303 p., 5 plates.

GEOLOGIC QUADRANGLE MAP

- GQ-1553. Geologic map of the Yandell Springs quadrangle, Bannock and Bingham Counties, Idaho, by D. E. Trimble. 1982. Scale 1:62,500.

MISCELLANEOUS INVESTIGATIONS SERIES

- I-1372. Surficial geologic map of the eastern Snake River Plain and adjacent areas, 111° to 115° west, Idaho and Wyoming, by W. E. Scott. 1982 (1983). 2 sheets, 1:250,000.
- I-1403. Geologic map of the Strevell 15-minute quadrangle, Cassia County, Idaho, by J. F. Smith, Jr. 1982. Scale 1:62,500.

MISCELLANEOUS FIELD STUDIES MAPS

- MF-1192-A. Geologic map of Salmo-Priest Wilderness study area (Rare E6-981 A1-981), Pend Oreille County, Washington, and Boundary County, Idaho, by F. K. Miller. 1982. Scale 1:48,000.
- MF-1192-C. Mineral resource potential map of the Salmo-Priest Wilderness study area (Rare E6-981 A1-981), Pend Oreille County, Washington, and Boundary County, Idaho, by F. K. Miller and E. A. Rodriguez, USGS, and S. W. Schmauch, U.S. Bureau of Mines. 1982. Scale 1:48,000.
- MF-1342-A. Geologic map of the Centennial Mountains Wilderness study area and contiguous areas, Idaho and Montana, by I. J. Witkind. 1982. Scale 1:50,000.
- MF-1342-C. Geophysical survey of the Centennial Mountains Wilderness study area and contiguous areas, Beaverhead County, Montana, and Clark and Fremont Counties, Idaho, by R. A. Martin. 1982. Scale 1:100,000.
- MF-1434. Geologic map of Mt. Jordan and vicinity, Custer County, Idaho, by Fess Foster. 1982.
- MF-1445. Reconnaissance geologic map of the Ulysses Mountain quadrangle, Lemhi County, Idaho, by D. A. Lopez. 1982. Scale 1:48,000.
- MF-1446. Reconnaissance geologic map of the Gibbonsville quadrangle, Lemhi County, Idaho, and Beaverhead County, Montana, by D. A. Lopez. 1982. Scale 1:24,000.
- MF-1466-A. Geologic map of the Jerry Peak Wilderness study area, Custer County, Idaho, by D. H. McIntyre. 1982. Scale 1:50,000.

OPEN-FILE REPORTS

- OF 82-0001. Land use and land cover and associated maps for Twin Falls, Idaho. Scale 1:250,000.
- OF 82-0002. Land use and land cover and associated maps for Pocatello, Idaho. Scale 1:250,000.
- OF 82-0030. Geologic map of the Aspen Range, Grays Range-Wooley Range, Schmid Ridge, and Webster Range-Dry Ridge Known Phosphate Leasing Areas, southeastern Idaho, compiled by Peter Oberlindacher, R. D. Hovland, and S. T. Miller. 1 over-size sheet, scale 1:48,000.
- OF 82-0102. Flow characteristics and water-quality conditions in the Spokane River, Coeur d'Alene Lake to Post Falls Dam, northern Idaho, by H. R. Seitz and M. L. Jones. 60 p.

- OF 82-0104. Thermal springs in the Salmon River basin, central Idaho, by H. W. Young and R. E. Lewis. 30 p., 2 over-size sheets.
- OF 82-0132. Principal facts for 1980 gravity stations in the Wallace 1° x 2° quadrangle, Montana-Idaho, by Viki Bankey, Mike Brickey, and M. D. Kleinkopf. 15 p.
- OF 82-0169. Activities in Idaho, status of projects, fiscal year 1981, compiled by L. K. Channel. 41 p.
- OF 82-0321. Evaluation of Proterozoic quartzite and conglomerate in central Idaho for quartz-pebble conglomerate uranium deposits, by F. A. Hills. 38 p.
- OF 82-0418. Preliminary map of the mining districts of the Basin and Range area of Idaho, by George Wong. 10 p., 1 over-size sheet, scale 1:500,000.
- OF 82-0467. Semiquantitative spectrographic analyses of rocks from the Mount Jordan vicinity, Custer County, Idaho, by Fess Foster and E. F. Cooley. 13 p.
- OF 82-0494. Data report and statistical summary for samples of stream-sediment and nonmagnetic heavy-mineral concentrates from the Wallace 1° x 2° quadrangle, Montana and Idaho, by D. L. Leach, J. A. Domenico, D. M. Hopkins, H. E. Dawson, and R. J. Goldfarb. 247 p., 1 over-size sheet.
- OF 82-0532. Columbia River Basalt: 1980-81 sample data and chemical analyses (supplements Open-File report 80-921), by T. L. Wright, K. N. Black, D. A. Swanson, and Tim O'Hearn. 62 p.
- OF 82-0542. Aeromagnetic map of an area east of Mountain Home, Idaho. 1 over-size sheet, scale 1:62,500.
- OF 82-0570. Ground-water conditions in the eastern part of Michaud Flats, Fort Hall Indian Reservation, Idaho, by N. D. Jacobson. 38 p.
- OF 82-0577. Geochemical favorability for mesothermal veins in the Wallace 1° x 2° quadrangle, Montana and Idaho, by D. L. Leach. 4 p., one 35-mm color slide.
- OF 82-0579. Quaternary fault map of the Basin and Range and Rio Grande rift provinces, western United States, by J. K. Nakata, C. M. Wentworth, and M. N. Machette. 2 over-size sheets, scale 1:2,500,000.
- OF 82-0581. Preliminary resource appraisal for metallic minerals in the Wallace 1° x 2° quadrangle, Montana and Idaho, by J. E. Harrison, D. L. Leach, M. D. Kleinkopf, E. R. Cressman, C. L. Long, and J. A. Domenico. 2 p., nine 35-mm color slides.

- OF 82-0604. Slides showing preliminary mosaic aeromagnetic and complete Bouguer gravity anomaly maps of the Dillon 1° x 2° quadrangle, Montana and Idaho, by H. E. Kaufmann and W. F. Hanna. 4 p., two 35-mm color slides.
- OF 82-0614. Preliminary interpretation of thrust-fault patterns in western Montana and east-central Idaho, by C. A. Wallace, E. T. Ruppel, J. E. Harrison, and M. W. Reynolds. 2 p., two 35-mm color slides.
- OF 82-0644. Subsurface information from eight wells drilled at the Idaho National Engineering Laboratory, by F. J. Goldstein and W. D. Weight. 34 p.
- OF 82-0667. Slides showing a preliminary geologic map of the Dillon 1° x 2° quadrangle, Montana and Idaho, by E. T. Ruppel, J. M. O'Neill, and David Lopez. 2 p., two 35-mm color slides.
- OF 82-0671. Preliminary audio-magnetotelluric results for part of the Wallace 1° x 2° quadrangle, Montana and Idaho, by C. L. Long. 2 p., four 35-mm color slides.
- OF 82-0708. Principal facts for gravity stations in the Selway-Bitterroot Wilderness, Montana-Idaho, by Viki Bankey, Mike Brickey, and M. D. Kleinkopf. 20 p.
- OF 82-0709. Slides showing aeromagnetic and gravity anomaly maps and a metallic mineral resource favorability map of the Wallace 1° x 2° quadrangle, Montana and Idaho, by M. D. Kleinkopf, J. E. Harrison, and Viki Bankey. 4 p., three 35-mm color slides.
- OF 82-0711. Preliminary audio-magnetotelluric results for parts of the Butte and Dillon 1° x 2° quadrangles, Montana and Idaho, by D. B. Hoover, C. L. Long, H. E. Kaufmann, and J. H. Hassemer. 2 p., four 35-mm color slides.
- OF 82-0726. STEREO: A computer program for projecting and plotting stereograms, by Peter German and Carl Johnson. 74 p.
- OF 82-0746-A. Preliminary Computerized Resources Information Bank (CRIB) data for the Wallace 2° quadrangle, northern Idaho and northwestern Montana, Part A, by G. J. Orris, Tom Griffith, Sharon Chesson, and Norma Schneider. 26 p.
- OF 82-0746-B. Preliminary Computerized Resources Information Bank (CRIB) data for the Wallace 2° quadrangle, northern Idaho and northwestern Montana, Part B, by G. J. Orris, Tom Griffith, Sharon Chesson, and Norma Schneider. 1195 p.
- OF 82-0755. Water resources of Rockland basin, southeastern Idaho, by R. P. Williams and H. W. Young. 68 p.

- OF 82-0769. Evaluation of water-quality characteristics of part of the Spokane aquifer, Washington and Idaho, using a solute-transport digital model, by J. J. Vaccaro and E. L. Bolke. 75 p.
- OF 82-0865. An evaluation of Idaho stream-gaging networks, by E. W. Quillian and W. A. Harenberg. 61 p.
- OF 82-0883. Principal facts for the Bouguer gravity map of the Wallace 1° x 2° CUSMAP quadrangle, Montana-Idaho, by Viki Bankey and M. D. Kleinkopf. 57 p.
- OF 82-0894. Physiographic diagram of the Seven Devils Mountains and Hells Canyon, Idaho and Oregon, by T. R. Alpha and W. A. Austin. 1 over-size sheet.
- OF 82-1022. Configuration of the water table, March, 1980, in the Snake River Plain regional aquifer system, Idaho and eastern Oregon, by G. F. Lindholm, S. P. Garabedian, G. D. Newton, and R. L. Whitehead. 1 over-size sheet.
- OF 82-1031. Analyses for fluorine, mercury, silver, thorium, tungsten, and uranium in rocks from the Blue Joint Wilderness study area, Ravalli County, Montana, and the Blue Joint roadless area, Lemhi County, Idaho, by Belinda Arbogast, H. T. Millard, Jr., W. M. Rehn, B. W. Coxe, and Karen Lund. 16 p., 1 over-size sheet, scale 1:50,000.
- OF 82-1061. Preliminary geologic map of the Coolin area, Idaho, by F. K. Miller. 21 p., 1 over-size sheet, scale 1:48,000.
- OF 82-1062. Preliminary geologic map of the Continental Mountain area, Idaho, by F. K. Miller. 33 p., 1 over-size sheet, scale 1:48,000.
- OF 82-1063. Preliminary geologic map of the Priest Lake area, Idaho, by F. K. Miller. 26 p., 1 over-size sheet, scale 1:48,000.
- OF 82-1094. Major element X-ray fluorescence analyses of rock samples from the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli Counties, Montana, by M. E. Koesterer, A. J. Bartel, H. N. Elsheimer, J. W. Baker, B. S. King, and L. F. Espos. 38 p.
- OF 82-1099. Analytical determinations from samples taken in the Ten Mile west roadless area, Boise and Elmore Counties, Idaho, by T. H. Kiilsgaard. 36 p., 2 over-size sheets.

PAMPHLETS

- P 1044-J. Hydrology and geochemistry of thermal ground water in southwestern Idaho and north-central Nevada, by H. W. Young and R. E. Lewis. 1982. p. J1-J20, 2 plates.

- P 1219. Digital classification of Landsat data for vegetation and land-cover mapping in the Blackfoot River watershed, southeastern Idaho, by L. R. Pettinger. 1982. 33 p.
- P 1224. Cenozoic block uplifts in east-central Idaho and southwest Montana, by E. T. Ruppel. 1982. 24 p.

REPORTS AVAILABLE ONLY THROUGH NTIS

The following reports may be obtained from the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. When ordering, please use the NTIS number preceding each item.

- PB-82 195 280. Organic solutes in ground water at the Idaho National Engineering Laboratory, by J. A. Leenheer and J. C. Bagby. 1982. 44 p.
- PB-82 204 066. Evaluation of a predictive ground-water solute-transport model at the Idaho National Engineering Laboratory, Idaho, by B. D. Lewis and F. J. Goldstein. 1982. 78 p.
- PB-82 253 386. Magnetic tape containing analyses of rocks and stream sediments from the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Ravalli and Missoula Counties, Montana, by V. W. Cox, E. L. Mosier, and C. M. McDougal. 1982.

WATER-RESOURCES INVESTIGATIONS

- WRI 82-4004. Reconnaissance of ground-water quality, eastern Snake River basin, Idaho, by D. J. Parlman. 107 p., 4 over-size sheets.
- WRI 82-4006. Thermal springs in the Boise River basin, south-central Idaho, by R. E. Lewis and H. W. Young. 28 p.
- WRI 82-4106. Effects of volcanic ash on the benthic environment of a mountain stream, northern Idaho, by S. A. Frenzel. 37 p.

WATER SUPPLY PAPERS

- W 2186. Geothermal resources in the Banbury Hot Springs area, Twin Falls County, Idaho, by R. E. Lewis and H. W. Young. 1982. 27 p. (supercedes Open-File Report 80-563).
- W 2191. Hydrologic conditions at the Idaho National Engineering Laboratory, Idaho-emphasis: 1974-1978, by J. T. Barraclough, B. D. Lewis, and R. G. Jensen. 52 p.

USGS STUDIES ON IDAHO PRIOR TO 1982

The following studies were not included in previous IGS Technical Reports (Open-File Reports) 81-4, 82-10, and 83-5.

1979

OF 79-1129. Deep drilling data, Raft River geothermal area, Idaho Raft River geothermal injection well no. 6, by H. R. Covington. 1 over-size sheet.

1980

OF 80-0510-W. Water-quality conditions in the Milner Reach, Snake River, south-central Idaho, October 18-21, 1977, by W. H. Low. 45 p.

1981

C 0838. Guides to some volcanic terranes in Washington, Idaho, Oregon, and northern California, D. A. Johnston and Julie Donnelly-Nolan, editors. 1981. 189 p. (Reprint)

MF-1354-A. Generalized geologic map of the Wallace 1° x 2° quadrangle, Montana and Idaho, by J. E. Harrison, A. B. Griggs, and J. D. Wells. 1981. Scale 1:250,000.

OF 81-0323. Land use and land cover and associated maps for Pullman, Washington-Idaho. Scale 1:250,000.

OF 81-0740. Conodont biostratigraphy and thermal color alteration indices of the upper St. Charles and lower Garden City Formations, Bear River Range, northern Utah and southern Idaho, by Ed Landing. 29 p.

OF 81-0891. Analyses of rocks and stream sediment from the Magruder Corridor roadless area, Idaho County, Idaho, by E. L. Mosier, M. R. Pawlowski, F. E. Mutschler, W. M. Rehn, K. I. Lund, B. W. Cox, and R. O. Yeoman. 139 p., 1 over-size sheet, scale 1:50,000.

OF 81-0998. Total field aeromagnetic map of the Raft River Known Geothermal Resource Area, Idaho. 1 over-size sheet, scale 1:24,000.

OF 81-1045. Uranium and thorium data from water and stream sediments of the Blue Joint Wilderness study area, Ravalli County, Montana, and the Blue Joint roadless area, Lemhi County, Idaho, by H. T. Millard, Jr., W. M. Rehn, B. W. Cox, and Karen Lund. 18 p., 1 over-size sheet, scale 1:50,000.

OF 81-1088. Stratigraphy of the Yellowjacket Formation of east-central Idaho, by D. A. Lopez. 218 p., 10 over-size sheets.

OF 81-1161. Aeromagnetic map of the Palisades area, Idaho and Wyoming. 1 over-size sheet, scale 1:62,500.

OF 81-1212. Analyses of rocks and stream sediments from the Blue Joint Wilderness study area, Ravalli County, Montana, and the Blue Joint roadless area, Lemhi County, Idaho, by E. L. Mosier, W. M. Rehn, Karen Lund, C. D. Holloway, B. W. Coxe, and R. O. Yeoman. 166 p., 1 over-size sheet, scale 1:50,000.