

Geologic Bibliography of Raft River Geothermal Area and Vicinity, Cassia County, Idaho

Steven C. Devine
Bill Bonnichsen

Technical Report 79-2
1979

Idaho Geological Survey
University of Idaho
Moscow, ID 83844-3014

GEOLOGIC BIBLIOGRAPHY OF RAFT RIVER GEOTHERMAL AREA
AND VICINITY, CASSIA COUNTY, IDAHO

Steven C. Devine

Bill Bonnichsen

Idaho Geological Survey
University of Idaho
Moscow, Idaho

Technical Report 79-2
April 1979

GEOLOGIC BIBLIOGRAPHY OF RAFT RIVER GEOTHERMAL AREA
AND VICINITY, CASSIA COUNTY, IDAHO

by

Steven C. Devine¹

and

Bill Bonnichsen¹

Ackerman, H. D., 1975, Velocity sections in Raft River, Idaho, geothermal area from seismic refractions: U. S. Geological Survey Open-File Report 78-106.

Anderson, A. L., 1931a, Geology and mineral resources of eastern Cassia County, Idaho: University of Chicago Ph.D. dissertation.

-----, 1931b, Geology and mineral resources of eastern Cassia County, Idaho: Idaho Bureau of Mines and Geology Bulletin 14, p. 49-59.

-----, 1934, Contact phenomena associated with the Cassia batholith, Idaho: Journal of Geology, v. 42, p. 376-392.

Anderson, W. L., 1977, Interpretation of electromagnetic soundings in the Raft River geothermal area, Idaho: U. S. Geological Survey Open-File Report 77-557.

Armstrong, F. C. and S. S. Oriel, 1965, Tectonic development of the Idaho-Wyoming thrust belt: American Association of Petroleum Geologists Bulletin, v. 49, p. 1847-1866.

Armstrong, R. L., 1963, Geochronology and geology of the eastern Great Basin in Nevada and Utah: Yale University Ph.D. dissertation.

¹Idaho Bureau of Mines and Geology, Moscow, Idaho 83843.

-----, 1966, Pre-Tertiary stratigraphy of the Albion Range, southern Idaho (abstract): Geological Society of America Program, 1966, Annual Meeting, p. 16.

-----, 1968, Mantled gneiss domes in the Albion Range, southern Idaho: Geological Society of America Bulletin, v. 79, p. 1295-1314.

-----, 1970, Mantled gneiss domes in the Albion Range, southern Idaho, a revision: Geological Society of America Bulletin, v. 81, p. 909-910.

-----, 1976, The geochronometry of Idaho: Isochron/West: v. 15, p. 12-33.

Armstrong, R. L. and Edward Hansen, 1966, Cordilleran infrastructure in the eastern Great Basin: American Journal of Science, v. 264, p. 112-127.

Armstrong, R. L. and F. A. Hills, 1967, Rubidium-strontium and potassium-argon, geochronologic studies of mantled gneiss domes, Albion Range, southern Idaho, United States: Earth and Planetary Science Letters, v. 3, p. 114-124.

Armstrong, R. L., J. F. Smith, Jr., H. R. Covington, and P. L. Williams, 1978, Preliminary geologic map of the west half of the Pocatello quadrangle, Idaho: U. S. Geological Survey Open-File Report 78-533.

Axelsen, Claus, 1973, Pennsylvanian stratigraphy in south-central Idaho and adjacent area: Oregon State University M.S. thesis.

Compton, R. R., 1966, Metamorphosed Paleozoic sequence in the Raft River-Grouse Creek area, (abstract): Geological Society of America Program, 1966, Annual Meeting, p. 27-28.

- , 1968, Metamorphosed Paleozoic sequence in the Raft River-Grouse Creek area, Utah (abstract): Geological Society of America Special Paper 101, p. 296.
- , 1969, Thrusting in northwestern Utah: Geological Society of America, Abstract with Programs, 1969, Part III (Rocky Mountain Section), p. 15.
- , 1972, Geologic map of the Yost quadrangle, Box Elder County, Utah and Cassia County, Idaho: U. S. Geological Survey Miscellaneous Geologic Inventory Map I-672.
- , 1975, Geologic map of the Park Valley quadrangle, Box Elder County, Utah and Cassia County, Idaho: U. S. Geological Survey Miscellaneous Geologic Inventory Map I-873.
- Compton, R. R., V. A. Todd, R. E. Zartman, and C. W. Naeser, 1977, Oligocene and Miocene metamorphism, folding and low-angle faulting in northwest Utah: Geological Society of America Bulletin, v. 88, p. 1237-1250.
- Condie, K. C., 1966, Late Precambrian rocks of the northeastern Great Basin and vicinity: Journal of Geology, v. 74, p. 631-636.
- , 1969, Geologic evolution of Upper Precambrian rocks in northern Utah and adjacent areas: Utah Geology and Mineralogical Survey Bulletin 82, p. 71-95.
- Cook, K. L., 1958, Regional gravity survey in northern Utah (abstract): Geophysics, v. 23, p. 400.
- Cook, K. L., M. O. Halverson, J. C. Stepp, and J. W. Berg, Jr., 1964, Regional gravity survey of the northern Great Salt Lake desert and adjacent areas in Utah, Nevada, and Idaho: Geological Society of America Bulletin, v. 75, p. 715-740.

- Covington, H. R., 1977a, Deep drilling data: Raft River geothermal area, Idaho, Raft River Geothermal Exploration Well No. 1: U. S. Geological Survey Open-File Report 77-226.
- , 1977b, Deep drilling data: Raft River geothermal area, Idaho, Raft River Geothermal Exploration Well No. 2: U. S. Geological Survey Open-File Report 77-243.
- , 1977c, Deep drilling data: Raft River geothermal area, Idaho, Raft River Geothermal Exploration Well No. 3: U. S. Geological Survey Open-File Report 77-616.
- , 1977d, Deep drilling data: Raft River geothermal area, Idaho, Raft River Geothermal Exploration Well No. 3, Sidetrack-C: U. S. Geological Survey Open-File Report 77-883.
- , 1978, Deep drilling data: Raft River geothermal area, Idaho, Raft River Geothermal Exploration Well No. 4: U. S. Geological Survey Open-File Report 78-91.
- , 1979, Deep drilling data: Raft River geothermal area, Idaho, Raft River Geothermal Production Well No. 5: U. S. Geological Survey Open-File Report 79-382.
- Cramer, H. R., 1971, Permian rocks from Sublett Range, southern Idaho: American Association of Petroleum Geologists Bulletin, v. 55, p. 1787-1801.
- Crittenden, M. D., Jr., 1961, Magnitude of thrust faulting in northern Utah: U. S. Geological Survey Professional Paper 424-D, p. 128-133.
- , 1971, Nomenclature in correlation of some Upper Precambrian and basal Cambrian sequences in western Utah and southeastern Idaho: Geological Society of America Bulletin, v. 82, p. 581-602.

- Crittenden, M. D., Jr., P. J. Coney, and George Davis, 1978, Penrose Conference Report: Tectonic significance of metamorphic core complexes in the North American Cordilleran: *Geology*, v. 6, p. 79-80.
- Cunningham, F. F., 1971, The Silent City of Rocks, a Bornhardt landscape in the Cotterel Range, southern Idaho, U.S.A.: *Zeitschrift Fur Geomorphologie*, v. 15, p. 404-429.
- Damon, P. E., 1966, Geochronology of the Precambrian of northern Utah (abstract): Geological Society of America Program, 1966, Annual Meeting, p. 26.
- Davis, G. H. and P. J. Coney, 1979, Geologic development of the Cordilleran metamorphic core complexes: *Geology*, v. 7, p. 120-124.
- Dodge, H. W., 1956, Fusulinids from the Sublett Range, Idaho: University of Kansas M.S. thesis.
- Fader, S. W., 1951, Records of wells and ground-water withdrawal for irrigation in Raft River Valley, Cassia County, Idaho: U. S. Geological Survey Open-File Report.
- Felix, C. E., 1956, Geology of the eastern part of the Raft River Range: Guidebook to the Geology of Utah, no. 11, p. 76-96.
- French, D. E., 1975, Geology and mineralization of the southeastern part of the Black Pine Mountains, Cassia County, Idaho: Utah State University M.S. thesis.
- Gurney, J. W., 1968, Contacts of the Almo pluton, Albion Range, Cassia County, Idaho: Idaho State University M.S. thesis.
- Hazzard, J. C. and F. E. Turner, 1957, Decollement-type overthrusting in southcentral Idaho, northwest Utah, and northeastern Nevada (abstract): Geological Society of America Bulletin, v. 68, p. 1829.

Hoover, D. B., 1974, Audio-magnetotelluric apparent resistivity maps, southern Raft River area, Cassia County, Idaho: U. S. Geological Survey Open-File Report.

Khattab, M. M. M., 1969, Gravity magnetic surveys of Grouse Creek Mountains and Raft River Mountains area and vicinity, Utah and Idaho: University of Utah Ph.D. dissertation.

Kunze, J. F., L. G. Miller, J. F. Whitbeck, R. J. Schultz, A. S. Richardson, R. C. Stoker, S. G. Spencer, and D. T. Neill, 1975a, Geology and geophysics section in Geothermal R & D project report for period April 1, 1975, to June 30, 1975: Energy Research and Development Administration Report ANCR-1247, UC-13, p. 1320.

-----, 1975b, Geology and geophysics sections in Geothermal R & D project report for period of October 1, 1975, to December 30, 1975: Energy Research and Development Administration Report ANCR-1283, UC-66, p. 11-18.

-----, 1975c, Geology and geophysics section in Geothermal R & D project report for period July 1, 1975, to September 30, 1975: Energy Research and Development Administration Report ANCR-1281, UC-66, p. 14.

-----, 1975d, Geology and geophysics section in Geothermal R & D project report for period April 1, 1975, to June 30, 1975: Energy Research and Development Administration Report ANCR-1247, UC-13, p. 16-20.

-----, 1975e, Geology and geophysics section in Geothermal R & D project report for period January 1, 1975, to March 31, 1975: Energy Research and Development Administration Report ANCR-1222, UC-13, p. 18-25.

-----, 1975f, Geology and geophysics section in Geothermal R & D project report for period October 1, 1974, to December 31, 1974:

Energy Research and Development Administration Report ANCR-1208, UC-13, p. 13-15.

Lofgren, B. E., 1975, Land subsidence and tectonism, Raft River Valley, Idaho: U. S. Geological Survey Open-File Report 75-585.

Mabey, D. R., 1973, Principle facts for gravity stations in the Raft River Valley, Idaho: U. S. Geological Survey Open-File Report.

Mabey, D. R., D. L. Peterson, and C. W. Wilson, 1974, Preliminary gravity map of southern Idaho: U. S. Geological Survey Open-File Report 74-78.

Mabey, D. R. and C. W. Wilson, 1973a, Regional gravity and magnetic surveys in the Albion Mountains area of southern Idaho: U. S. Geological Survey Open-File Report.

-----, 1973b, Bouguer gravity anomaly map of the southern Raft River area, Cassia County, Idaho: U. S. Geological Survey Open-File Report.

-----, 1974, Bouguer gravity anomaly map of the southern Raft River area, Cassia County, Idaho: U. S. Geological Survey Open-File Report.

Mapel, W. J. and W. J. Hail, 1949, Tertiary geology of the Goose Creek district, Cassia County, Idaho, Box Elder County, Utah, and Elko County, Nevada: U. S. Geological Survey Bulletin 1055-H, p. 217-254.

Meinzer, O. E., 1924, Origin of the thermal springs of Nevada, Utah, and southern Idaho: Journal of Geology, v. 32, p. 295-303.

- Misch, Peter and J. C. Hazzard, 1962, Stratigraphy and metamorphism of Late Precambrian rocks in central northeastern Nevada and adjacent Utah: American Association of Petroleum Geologist Bulletin, v. 46, p. 289-343.
- Morgan, W. A., 1977, Stratigraphy in Paleoenvironments of three Permian units in the Cassia Mountains, central southern Idaho: University of Wisconsin M.S. thesis.
- Myers, D. A., 1967, The geology and hydrogeology of the Albion Basin, Cassia County, Idaho: University of Idaho M.S. thesis.
- Nace, R. L., and others, 1961, Water resources of the Raft River Basin, Idaho-Utah: U. S. Geological Survey Water-Supply Paper 1587, 138 p.
- Oriel, S. S., P. L. Williams, H. R. Covington, W. S. Keys, and K. C. Shaver, 1978, Deep drilling data, Raft River geothermal area, Idaho, Standard American Oil Company, Malta, Naf, and Strevell Petroleum test boreholes: U. S. Geological Survey Open-File Report 78-361.
- Peterson, D. L., 1973, Bouguer gravity map of parts of Cassia and Oneida Counties, Idaho, and Box Elder, Davis and Weber Counties, Utah: U. S. Geological Survey Open-File Report.
- Piper, A. M., 1923, Geology and water resources of the Goose Creek Basin, Cassia County, Idaho: Idaho Bureau of Mines and Geology Bulletin 6, 78 p.
- Rember, W. C. and E. H. Bennett, in press, Geology of the Pocatello quadrangle, Idaho: Idaho Bureau of Mines and Geology Geologic Map Series, 2° quadrangles.

- Roberts, R. J., 1965, Pennsylvanian and Permian basins in northwestern Utah, northeastern Nevada, and south-central Idaho: American Association of Petroleum Geologists Bulletin, v. 49, p. 1926-1956.
- Ross, S. H., 1971, Geothermal potential of Idaho: Idaho Bureau of Mines and Geology Pamphlet 150, 72 p.
- Sayyah, T. D., 1965, Geochronological studies of the Kinsley stock, Nevada, and the Raft River Range, Utah: University of Utah Ph.D. dissertation.
- Small, W. D. and W. F. Slawson, 1968, Lead-lead geochronology of three regions in southern Idaho (abstract): American Geophysical Union Transactions, v. 49, p. 761.
- Stokes, W. L., 1952, Paleozoic positive area in northwestern Utah (abstract): Geological Society of America Bulletin, v. 68, p. 1829.
- , (Compiler), 1963, Geologic map of northwestern Utah: University of Utah, College of Mines and Mineral Industries.
- Stringham, Bronson, 1962, Precambrian stratigraphy of the Grouse Creek Mountains, northwestern Utah (abstract): Geological Society of America Special Paper 68, p. 105.
- Thompson, R. R., 1972, Geologic map of the Yost quadrangle, Box Elder County, Utah, and Cassia County, Idaho: U. S. Geological Survey Miscellaneous Geologic Inventory Map I-672.
- Todd, V. T., 1973, Structure and petrology of metamorphosed rocks in central Grouse Creek Mountains, Box Elder County, Utah: Stanford University Ph.D. dissertation.

- Trimble, D. E. and W. J. Carr, 1962, Preliminary report on the stratigraphy of the Paleozoic rocks southwest of Pocatello, Idaho: U. S. Geological Survey Open-File Report.
- Urban, T. C. and W. H. Dimment, 1975, Heat flow on the south flank of the Snake River Rift: Geological Society of America, Abstract with Programs, v. 7, no. 5, p. 648.
- U. S. Geological Survey, 1974, Residual magnetic intensity map of the southern Raft River area, Cassia County, Idaho: U. S. Geological Survey Open-File Report.
- Walker, E. H., 1970, The Raft River Basin, Idaho-Utah, as of 1966: a reappraisal of the water resources and effects of ground-water development: U. S. Geological Survey Water Information Bulletin 19, 95 p.
- Williams, P. L., D. R. Mabey, A. A. R. Zohdy, Hans Ackermann, D. B. Hoover, K. L. Pierce, and S. S. Oriel, 1975a, Geological and geophysical studies of a geothermal area in the southern Raft River Valley, Idaho, U.S.A. (abstract): U. N. Symposium on the Development and Use of Geothermal Resources, Abstract No. 2.
- , 1975b, Geology and geophysics of the southern Raft River Valley geothermal area, Idaho, U.S.A.: U. S. Geological Survey Open-File Report 75-322.
- , 1976, Geology and geophysics of the southern Raft River Valley geothermal area, Idaho, U. S. A.: U. N. Symposium on the Development and Use of Geothermal Resources, 2nd, San Francisco, California, May 20-29, 1975, Proceedings, v. 2, p. 1273-1282.

- Williams, P. L., K. L. Pierce, D. H. McIntyre, and P. W. Schmidt, 1974, Preliminary geologic map of the southern Raft River area, Cassia County, Idaho: U. S. Geological Survey Open-File Report.
- Wilson, C. W. and D. R. Mabey, 1974, Principle facts for gravity stations in the southern Raft River area, Cassia County, Idaho: U. S. Geological Survey Open-File Report.
- Witkind, I. J., 1975, Preliminary map showing known and suspected faults in Idaho: U. S. Geological Survey Open-File Report 75-278.
- Young, H. W. and J. C. Mitchell, 1973, Geothermal investigations in Idaho--Part I, geochemistry and geologic setting of selected geothermal waters: Idaho Department of Water Administration Water Information Bulletin 30, 43 p.
- Youngquist, Walter and J. R. Haegle, 1956, Geological reconnaissance of the Cassia Mountain region, Twin Falls and Cassia Counties, Idaho: Idaho Bureau of Mines and Geology Pamphlet 110, 18 p.
- Zohdy, A. A. R. and R. J. Bisdorf, 1976, Schlumberger soundings in the Upper Raft River and Raft River Valleys, Idaho and Utah: U. S. Geological Survey Open-File Report 76-92.
- Zohdy, A. A. R., D. B. Jackson, and R. J. Bisdorf, 1975, Schlumberger soundings and total field measurements in the Raft River geothermal area, Idaho: U. S. Geological Survey Open-File Report 75-130.