

Staff Publications and Activities

Publications

- Agency Activities—Fiscal Year 2002*: Idaho Geological Survey Web site on Web page, “Agency Activities,” 2003.
- Digital Geologic Map Compilation of the Elk City 30' x 60' Quadrangle, Idaho*, by R.S. Lewis and L.S. Stanford: Idaho Geological Survey Digital Geologic Map 5, scale 1:100,000.
- Digital Geologic Map Compilation of the Kooskia 30' x 60' Quadrangle, Idaho*, by R.S. Lewis and L.S. Stanford: Idaho Geological Survey Digital Geologic Map 6, scale 1:100,000.
- Digital Geologic Map Compilation of the Western Part of the Nez Perce Pass 30' x 60' Quadrangle, Idaho*, by R.S. Lewis and L.S. Stanford: Idaho Geological Survey Digital Geologic Map 4, scale 1:100,000.
- Geologic Map Compilation of the Hamilton 30' x 60' Quadrangle, Idaho*, by R.S. Lewis and L.S. Stanford: Idaho Geological Survey Geologic Map 32, scale 1:100,000.
- Geologic Map Compilation of the Missoula West 30' x 60' Quadrangle, Idaho*, by R.S. Lewis and L.S. Stanford: Idaho Geological Survey Geologic Map 34, scale 1:100,000.
- Geologic Map of the Cataract Peak Quadrangle, Kootenai County, Idaho*, by J.L. Browne: Idaho Geological Survey Technical Report 02-1, scale 1:24,000, 2002.
- Geologic Map of the Coeur d'Alene 30' x 60' Quadrangle, Idaho*, by R.S. Lewis, R.F. Burmester, R.M. Breckenridge, M.D. McFaddan, and J.D. Kauffman: Idaho Geological Survey Geologic Map 33, scale 1:100,000.
- Geologic Map of the Skitwish Peak Quadrangle, Kootenai County, Idaho*, by J.L. Browne: Idaho Geological Survey Technical Report 02-2, scale 1:24,000, 2002.
- Geologic Map of the Spades Mountain Quadrangle, Kootenai County, Idaho*, by J.L. Browne: Idaho Geological Survey Technical Report 02-3, scale 1:24,000, 2002.
- Geologic Map of the Wolf Lodge Quadrangle, Kootenai County, Idaho*, by J.L. Browne: Idaho Geological Survey Technical Report 02-4, scale 1:24,000, 2002.
- Index of Geologic Maps*: Idaho Geological Survey Web site on Web page, “Browse and Search,” 2002.
- List of Publications, 2003*, by R.C. Stewart: Idaho Geological Survey booklet, 2002, 48 p.
- List of Publications, 2003*, by R.C. Stewart with B.B.E. Studer: Idaho Geological Survey Web site, 2003.
- Mineral Industry of Idaho (2001)*, by A. Tanner and S.D. Smith with V.S. Gillerman: U.S. Geological Survey Mineral Industry Surveys and Minerals Yearbook Chapter, vol. II, p. 14.0-14.5, December, 2002.
- Mining and Exploration in Idaho, 2002*, by V.S. Gillerman and E.H. Bennett: Mining Engineering, May, 2003, v. 55, no. 5, p. 65-69.
- Miocene and Younger Faults in Idaho*, by R.M. Breckenridge, R.S. Lewis, G.W. Adema, and D.W. Weisz: Idaho Geological Survey Map 8, 2003, scale 1:1,000,000.
- Post-Earthquake Technical Clearinghouse Workshop March 26-27, 2001*, Proceedings Volume compiled by C. dePolo and R.M. Breckenridge: Western States Seismic Policy Council, October, 2002, 48 p.
- Surficial Geologic Map of the Ahsahka Quadrangle, Clearwater County, Idaho*, by K.L. Othberg, D.W. Weisz, and R.M. Breckenridge: Idaho Geological Survey Digital Web Map 7, 2002, scale 1:24,000.
- Surficial Geologic Map of the Culdesac North Quadrangle, Nez Perce County, Idaho*, by K.L. Othberg, R.M. Breckenridge, and D.W. Weisz: Idaho Geological Survey Digital Web Map 10, 2003, scale 1:24,000.
- Surficial Geologic Map of the Dent Quadrangle, Clearwater County, Idaho*, by K.L. Othberg, D.W. Weisz, and R.M. Breckenridge: Idaho Geological Survey Digital Web Map 6, 2002, scale 1:24,000.
- Surficial Geologic Map of the Gifford Quadrangle, Nez Perce County, Idaho*, by K.L. Othberg, D.W.

- Weisz, and R.M. Breckenridge: Idaho Geological Survey Digital Web Map 3, 2002, scale 1:24,000.
- Surficial Geologic Map of the Juliaetta Quadrangle, Nez Perce County, Idaho*, by K.L. Othberg, R.M. Breckenridge, and D.W. Weisz: Idaho Geological Survey Digital Web Map 11, 2003, scale 1:24,000.
- Surficial Geologic Map of the Kamiah Quadrangle, Idaho and Lewis Counties, Idaho*, by D.W. Weisz, K.L. Othberg, and R.M. Breckenridge: Idaho Geological Survey Digital Web Map 17, 2003, scale 1:24,000.
- Surficial Geologic Map of the Kooskia Quadrangle, Idaho County, Idaho*, by D.W. Weisz, K.L. Othberg, and R.M. Breckenridge: Idaho Geological Survey Digital Web Map 16, 2003, scale 1:24,000.
- Surficial Geologic Map of the Lapwai Quadrangle, Nez Perce County, Idaho*, by K.L. Othberg, R.M. Breckenridge, and D.W. Weisz: Idaho Geological Survey Digital Web Map 12, 2003, scale 1:24,000.
- Surficial Geologic Map of the Lenore Quadrangle, Nez Perce County, Idaho*, by K.L. Othberg, R.M. Breckenridge, and D.W. Weisz: Idaho Geological Survey Digital Web Map 14, 2003, scale 1:24,000.
- Surficial Geologic Map of the Lewiston Orchards North Quadrangle and Part of the Clarkston Quadrangle, Nez Perce County, Idaho*, by K.L. Othberg, R.M. Breckenridge, and D.W. Weisz: Idaho Geological Survey Digital Web Map 8, 2003, scale 1:24,000.
- Surficial Geologic Map of the Lewiston Orchards South Quadrangle and Part of the Asotin Quadrangle, Nez Perce County, Idaho*, by K.L. Othberg, R.M. Breckenridge, and D.W. Weisz: Idaho Geological Survey Digital Web Map 9, 2003, scale 1:24,000.
- Surficial Geologic Map of the Michaud and Pocatello North Quadrangles, Bannock and Power Counties, Idaho*, by Kurt L. Othberg: Idaho Geological Survey Surficial Geologic Map 14, 2002, scale 1:24,000.
- Surficial Geologic Map of the Orofino East Quadrangle, Clearwater and Lewis Counties, Idaho*, by K.L. Othberg, D.W. Weisz, and R.M. Breckenridge: Idaho Geological Survey Digital Web Map 4, 2002, scale 1:24,000.
- Surficial Geologic Map of the Orofino West Quadrangle, Clearwater, Lewis and Nez Perce Counties, Idaho*, by K.L. Othberg, D.W. Weisz, and R.M. Breckenridge: Idaho Geological Survey Digital Web Map 5, 2002, scale 1:24,000.
- Surficial Geologic Map of the Peck Quadrangle, Clearwater, Lewis and Nez Perce Counties, Idaho*, by K.L. Othberg, D.W. Weisz, and R.M. Breckenridge: Idaho Geological Survey Digital Web Map 1, 2002, scale 1:24,000.
- Surficial Geologic Map of the Sixmile Creek Quadrangle, Clearwater, Idaho, and Lewis Counties, Idaho*, by D.W. Weisz, K.L. Othberg, and R.M. Breckenridge: Idaho Geological Survey Digital Web Map 15, 2003, scale 1:24,000.
- Surficial Geologic Map of the Sweetwater Quadrangle, Nez Perce County, Idaho*, by K.L. Othberg, R.M. Breckenridge, and D.W. Weisz: Idaho Geological Survey Digital Web Map 13, 2003, scale 1:24,000.
- Surficial Geologic map of the Southwick Quadrangle, Clearwater and Nez Perce Counties, Idaho*, by K.L. Othberg, D.W. Weisz, and R.M. Breckenridge: Idaho Geological Survey Digital Web Map 2, 2003, scale 1:24,000.
- Surficial Geologic Map of the Woodland Quadrangle, Clearwater, Idaho, and Lewis Counties, Idaho*, by D.W. Weisz, K.L. Othberg, and R.M. Breckenridge: Idaho Geological Survey Digital Web Map 18, 2003, scale 1:24,000.

Abstracts

- Application of Microprobe Geochronology to Hydrothermal Monazite and Thorite, Lemhi Pass District, Idaho*, by M.J. Jercinovic, V.S. Gillerman, and H.J. Stein: Geological Society of America Abstracts with Programs, 2002, v. 34, no. 6, p. 172.
- Economic Costs and Benefits of Protecting Groundwater in Pocatello, Idaho*, by D.L. Jeavons and J.A. Welhan, in M.J. Pfeffer, D.J. Van Abs, and

- K.N. Brooks, eds., *Watershed Management for Water Supply Systems: American Water Resources Association International Congress*, New York, June 29, 2003; AWRA, Middleburg, Virginia, TPS-03-2, CD-ROM.
- Microgravity and Magnetic Detection of Mafic Dikes, Fissures, and Lava Tubes in Basalt: Potential Barriers and Fast-Flow Paths for Contaminant Migration Within the Eastern Snake River Plain, Idaho*, by J.M. Kruger, A.C. Smith, and J.A. Welhan: Proceedings, Society of Exploration Geophysicists International Exposition and 72nd Annual Meeting, 2002, Salt Lake City, Utah, CD-ROM.
- Stochastic Simulation of Heterogeneity in a Layered Basalt-Sedimentary Aquifer, Idaho*, by J.A. Welhan: Proceedings, Inland Northwest Research Alliance Subsurface Science Symposium, 2002, Boise.
- U-Pb and Re-Os Geochronology Suggests a Multi-stage Precambrian-Mesozoic History for Thorium and Copper Mineralization, Lemhi Pass, Idaho*, by V.S. Gillerman, M.J. Jercinovic, and H.J. Stein: Geological Society of America Abstracts with Programs, 2002, v. 34, no. 6, p. 337.
- ## Reports and Presentations
- Applying Surficial Geologic Mapping to Geologic Hazards Mapping, Nez Perce County, Idaho*, by L.R. Stanford, K.L. Othberg, B. Reynolds, and R.M. Breckenridge: poster session, Digital Mapping Techniques Workshop, U.S. Geological Survey-Association of American State Geologists, Millersville, Pennsylvania, June.
- Catalogue of Theses on the Geology of Idaho*, by D.W. Weisz: Idaho Geological Survey unpublished database, 2002.
- Creating a Shaded Relief Geologic Map Using World Construction Set and Adobe Illustrator Software*, by L.R. Stanford: poster session, Digital Mapping Techniques Workshop, U.S. Geological Survey-Association of American State Geologists, Millersville, Pennsylvania, June.
- Earthquake Epicenters Map of Idaho*, by G.W. Adema, R.M. Breckenridge, K.F. Sprenke, and D.W. Weisz: Idaho Geological Survey unpublished map, scale 1:1,000,000, 2002.
- The Eastern Snake River Plain Ground-Water System*, by J.A. Welhan: Sho-Ban Tribal Water Commission, Fort Hall, December.
- Economic Geology Field Studies*, by V.S. Gillerman: Geology 497-597, Department of Geosciences, Boise State University, fall semester.
- The ESRP Aquifer System: Geology and Hydrology*, by J.A. Welhan: Engineering seminar, Idaho State University, March.
- Geographic Information System for Geotechnical Hazard Mapping in Nez Perce County*, by L.R. Stanford: Idaho Geological Survey unpublished database, phase two, September.
- Geology and Geologic Hazards of the Salmon Area*, by R.M. Breckenridge and T.C. Walker: Geology 404-504, Department of Geological Sciences, University of Idaho, July.
- Geologic Map Data Models, Who Needs Them?*, by L.R. Stanford: Mapping Team Meeting, Oregon Department of Geology and Mineral Industries, Portland, Oregon, March.
- Geologic Map of the Eden Quadrangle, Jerome and Twin Falls Counties, Idaho*, by K.L. Othberg and R.M. Breckenridge: Idaho Geological Survey unpublished map, scale 1:24,000, April.
- Geologic Map of the Gooding Quadrangle, Gooding County, Idaho*, by J.D. Kauffman and K.L. Othberg: Idaho Geological Survey unpublished map, scale 1:24,000.
- Geologic Map of the Jerome Quadrangle, Gooding and Jerome Counties, Idaho*, by V.S. Gillerman, K.L. Othberg, and J.D. Kauffman: Idaho Geological Survey unpublished map, scale 1:24,000, April.
- Geologic Map of the Kimberly Quadrangle, Jerome and Twin Falls Counties, Idaho*, K.L. Othberg and R.M. Breckenridge: Idaho Geological Survey unpublished map, scale 1:24,000, April.
- Geologic Map of the Kooskia 30' x 60' Quadrangle*, by R.S. Lewis, R.F. Burmester, J.D. Kauffman, R.M. Breckenridge, K.L. Schmidt, M.D. McFad-

- den, and P.E. Meyers: Idaho Geological Survey unpublished map, scale 1:100,000, April.
- Geologic Map of the Niagara Springs Quadrangle, Gooding and Twin Falls Counties, Idaho*, by V.S. Gillerman, K.L. Othberg, and J.D. Kauffman: Idaho Geological Survey unpublished map, scale 1:24,000, April.
- Geologic Map of the Wendell Quadrangle, Gooding County, Idaho*, by J.D. Kauffman and K.L. Othberg: Idaho Geological Survey unpublished map, scale 1:24,000, April.
- Geologic Maps on the Idaho Geological Survey Web Site*, by K.L. Othberg: Idaho Planning Association 2002 Annual Conference, Moscow, September.
- Geologic Setting of the Boise Valley*, by V.S. Gillerman: 5th grade class field trip, Adams Elementary, Boise, May.
- Geologic Siting Assessment of a New Classroom Facility at the University of Idaho Nancy M. Cummings Research Facility, Salmon Idaho*, by R.M. Breckenridge and T.C. Walker: Geology 404-504, Department of Geological Sciences, University of Idaho, July.
- Geology and Geologic Hazards of the Salmon Area*, by R.M. Breckenridge: Earth Science Teachers Summer Workshop, Salmon, July.
- Geology and Geologic Hazards of the Salmon Area*, by R.M. Breckenridge and T.C. Walker: Geology 404 and 504, Department of Geological Sciences, University of Idaho, July.
- Geology and Mineral Deposits of Salmon and Lemhi Pass Region*, by V.S. Gillerman: Earth Science Teacher Summer Field Workshop, Salmon, July.
- Geology Interpretive Exhibits, Idaho Scenic Highway 200*, by R.M. Breckenridge: Midas Management and Project Development, Sandpoint. May.
- Geostatistics and Spatial Modeling*, by J.A. Welhan: Geosciences 606, Department of Geosciences, Idaho State University, spring semester.
- Glacial Geology of the Sawtooth Mountains*, by L.R. Stanford: Wild Idaho Conservation Conference field trip, Redfish Lake, May.
- Glacial Lake Missoula and Clark Fork Ice Dam*, by R.M. Breckenridge: Public Broadcasting System and Nova television production, field trip, June.
- Got Digital Map Data. Now What?, How the Idaho Geological Survey Distributes Digital Geologic Map Data*, by B.B.E. Studer and L.R. Stanford: Digital Mapping Techniques '02 Workshop Proceedings, U.S. Geological Survey Open-File Report 02-370.
- Ice Age Floods in the Northwest*, by R.M. Breckenridge: Palouse Audubon Society, Moscow, December.
- The Idaho Digital Geologic Map Data Model, A Summary*, by L.R. Stanford: Oregon Geoscience Workgroup Committee, Portland, Oregon, March.
- Idaho Geological Survey Digital Geologic Mapping and GIS Information*, by V.S. Gillerman: Digital Government Day at the Statehouse, Boise, January.
- Idaho Geology and Quaternary Faulting*, by V.S. Gillerman: Earth Day Display at City Hall, Boise, April.
- Idaho Mining 2002 Update*, by V.S. Gillerman: Boise Section, Society of Mining Engineers, Boise, January.
- Interpreting Landslide Hazards Using Surficial Geologic Maps*, by K.L. Othberg: Clearwater County Project Impact Steering Committee, Orofino, July.
- Kriging Analysis of Water Quality Data*, by J.A. Welhan: Idaho Department of Water Resources, video linked at Idaho State University to Boise, September.
- Kriging as a Tool for Prioritizing Management of Nitrate- and Arsenic-Impacted Areas*, by J.A. Welhan: Ground Water Monitoring Technical Committee, Idaho Department of Environmental Quality, Boise, February.
- Kriging Trend Analysis of Statewide Monitoring Network Data*, by J.A. Welhan: Idaho Department of Environmental Quality, Twin Falls, November.
- Managing the Lower Portneuf Aquifer System*, by J.A. Welhan: science classes, Highland High School, Pocatello, February.
- Mining and Exploration in Idaho, 2002*, by V.S. Gillerman: Northwest Mining Association 108th

- Annual Meeting, Spokane, Washington, December.
- Progress Report on Geologic Mapping and Belt Stratigraphy of the Kooskia Quadrangle, Idaho*, by R.S. Lewis: Belt Association session, Northwest Mining Association annual meeting, Spokane, Washington, December.
- Risk Assessment Through Stochastic Modeling*, by J.A. Welhan: Introduction to Environmental Engineering 510, Idaho State University, January.
- Shaded Relief Map of Idaho*, by L.R. Stanford: Idaho Geological Survey unpublished map, scale 1:1,000,000, 2002.
- Site Inspection Report for the Abandoned and Inactive Mines in Idaho on U.S. Bureau of Land Management Property in the Pahsimeroi Valley, Lemhi County, Idaho*, by V.S. Gillerman, T. Morrison, and B. Otto: Idaho Geological Survey unpublished contract report, November, 2002, 58 p.
- Site Inspection Report for the Abandoned and Inactive Mines in Idaho on U.S. Forest Service Lands, Boise National Forest*, by D. Leppert, M. Berwick, V.S. Gillerman: Idaho Geological Survey unpublished contract report, March, 2003, 187 p., appendices.
- Snake River Plain Geology*, by J.A. Welhan: Engineering seminar 651, Idaho State University, March.
- Surficial Geologic Map of the Kamiah Quadrangle, Lewis and Idaho Counties, Idaho*, by D.W. Weisz, K.L. Othberg, and R.M. Breckenridge: Idaho Geological Survey unpublished map, scale 1:24,000, April.
- Surficial Geologic Map of the Kooskia Quadrangle, Idaho County, Idaho*, D.W. Weisz, K.L. Othberg, and R.M. Breckenridge: Idaho Geological Survey unpublished map, scale 1:24,000, April.
- Surficial Geologic Map of the Woodland Quadrangle, Clearwater, Lewis, and Idaho Counties, Idaho*, D.W. Weisz, K.L. Othberg, and R.M. Breckenridge: Idaho Geological Survey unpublished map, scale 1:24,000, April.
- Surficial Geologic Map of the Wood River Valley Area, Blaine County, Idaho*, by R.M. Breckenridge and K.L. Othberg: Idaho Geological Survey unpublished map, scale 1:50,000, April.
- Surficial Geologic Map of the Sixmile Creek Quadrangle, Clearwater, Lewis, and Idaho Counties, Idaho*, by D.W. Weisz, K.L. Othberg, and R.M. Breckenridge: Idaho Geological Survey unpublished map, scale 1:24,000, April.
- An Update of Digital Geologic Mapping Projects in Idaho*, by R.S. Lewis: Intermountain Forest Tree Nutrition Cooperative Annual Meeting, Moscow, April.
- Water Issues in the Portneuf River Watershed*, by J.A. Welhan: General Ecology 209, Idaho State University, November.

Professional Activities

- Association of American State Geologists, Annual Meeting and Western Cluster Meeting, Lincoln, Nebraska, June (R.M. Breckenridge).
- Boise Section meetings, Society for Mining, Metallurgy, and Exploration, Inc. (V.S. Gillerman).
- Chair, Portneuf Ground Water Forum, Pocatello (J.A. Welhan).
- Clearwater County Project Impact steering committee, Orofino, July (K.L. Othberg, D.W. Weisz).
- Co-Supervisor, Digital Geologic Mapping Lab, Idaho Geological Survey-Department of Geosciences, Idaho State University, (J.A. Welhan).
- Earth Science Teacher Summer Workshop, Idaho Geological Survey, Salmon, July (R.M. Breckenridge, T.C. Walker, V.S. Gillerman).
- Fellow, Society of Economic Geologists (V.S. Gillerman).
- Field trip, 2003 teacher workshop preview, Selway River valley, May (R.M. Breckenridge and K.L. Othberg).
- Geological Society of America Annual Meeting, Denver, Colorado, November (V.S. Gillerman).
- Ground-Water Forum, Palouse Basin Aquifer Committee, Palouse-Clearwater Environmental Institute and Palouse Water Conservation Network, Moscow, November (K.L. Othberg).
- Idaho Association of Professional Geologists meet-

- ings, Boise (V.S. Gillerman).
- Idaho Council on Industry and the Environment Science Workshop: INEEL, Boise, May (V.S. Gillerman).
- Idaho Earth Science Teachers Association business meeting, Salmon, July (R.M. Breckenridge).
- Idaho Earth Science Teachers Association steering committee meeting, Moscow, December (R.M. Breckenridge and K.L. Othberg).
- Idaho Environmental Forum meetings, Boise (V.S. Gillerman).
- Idaho Geological Survey Advisory Board teleconference meeting, Moscow-Boise-Pocatello, November (E.H. Bennett, R.M. Breckenridge, K.L. Othberg, V.S. Gillerman, C.D. Fullerton, L.R. Stanford, R.C. Stewart, J.A. Welhan).
- Idaho Geospatial Users meeting, Boise, November (L.R. Stanford).
- Idaho GIS User Community-Northern Region meeting, Coeur d'Alene, August (B.B.E. Studer).
- Idaho Science Teachers Association and Idaho Earth Science Teachers Association annual conference, Hailey, October (R.M. Breckenridge).
- Member, Alpine Club of Canada (R.M. Breckenridge).
- Member, Association of Earth Science Editors (R.C. Stewart).
- Member, Basin and Range Committee, Western States Seismic Policy Council (R.M. Breckenridge).
- Member, Earthquake Engineering Research Institute (R.M. Breckenridge).
- Member, Geological Society of Nevada (V.S. Gillerman).
- Member, Ground-Water Monitoring Technical Committee, Idaho Department of Environmental Quality (J.A. Welhan).
- Member, Ice Age Floods Institute, (R.M. Breckenridge).
- Member, Ice Age Floods Task Force (R.M. Breckenridge).
- Member, International Association of Volcanology and Chemistry of the Earth's Interior (Bill Bonnicksen).
- Member, Post-Earthquake Clearinghouse Committee, Western States Seismic Policy Council (R.M. Breckenridge).
- Member, Storm Water Master Plan Technical Advisory Committee, Pocatello (J.A. Welhan).
- Member, Storm Water Technical Advisory Committee, Blackfoot (J.A. Welhan).
- Member, Storm Water Technical Advisory Committee, Pocatello (J.A. Welhan).
- Member, Science Language Technical Team, North American Geologic Map Data Model (R.S. Lewis).
- Member, Seismological Society of America (R.M. Breckenridge).
- Member, Sigma Xi (V.S. Gillerman).
- Member, Society for Mining, Metallurgy, and Exploration, Inc. (V.S. Gillerman).
- Member, Steering Committee, North American Digital Geologic Map Data Model (L.R. Stanford).
- Member, Western States Seismic Policy Council (R.M. Breckenridge).
- Member and co-chair, Ground Water Guardian, Portneuf Chapter (J.A. Welhan).
- Members, American Geophysical Union (T.C. Walker, J.A. Welhan).
- Members, American Quaternary Association (R.M. Breckenridge, K.L. Othberg).
- Members, EDMAP Review Board, Idaho Geological Survey (R.M. Breckenridge, K.L. Othberg).
- Members, Geological Society of America (Bill Bonnicksen, E.H. Bennett, V.S. Gillerman, R.S. Lewis, V.E. Mitchell, K.L. Othberg).
- Members, Idaho Earth Science Teachers Association (R.M. Breckenridge, K.L. Othberg, T.C. Walker).
- Members, National Association of Geology Teachers (K.L. Othberg, T.C. Walker).
- Members, Northwest Mining Association (E.H. Bennett, R.S. Lewis, V.S. Gillerman).
- Members, Tobacco Root Geological Society (R.M. Breckenridge, R.S. Lewis).
- Northwest Mining Association 108th Annual Meeting, Spokane, Washington, December (R.S. Lewis, V.S. Gillerman).
- Organizers, Earth Science Teacher Summer Workshop, "Geology and Geologic Hazards of the

Clearwater Mountains,” Lowell, May-June (R.M. Breckenridge, K.L. Othberg).

RangeView GIS Data Workshop: Identifying Challenges Symposium, Pocatello, November (J.A. Welhan).

Representative, Department of Geosciences, Boise State University (V.S. Gillerman).

Representative, Department of Geosciences, Idaho State University (J.A. Welhan).

Representative, Graduate Faculty, Idaho State University (J.A. Welhan).

Representative, Mining Advisory Committee, Department of Lands (V.S. Gillerman).

Representative, Water Planning Coordination Committee, Idaho Department of Water Resources (V.S. Gillerman).

Representatives, State Mapping Advisory Committee, Boise, September (R.M. Breckenridge, K.L. Othberg).

Representative and Disaster Coordinator, Idaho Bureau of Disaster Services (V.S. Gillerman).

Response and Coordination Workshop, April 2001 Nisqually earthquake, Federal Emergency Management Agency, Idaho Bureau of Disaster Services, Boise, August (R.M. Breckenridge).

SEBAL short course on ET modeling using remotely sensed data, Pocatello, August (J.A. Welhan).

Secretary, Board of Directors, Belt Association (R.S. Lewis).

Source-water contamination prevention training course, Environmental Protection Agency, Pocatello, August (J.A. Welhan).

Strategic Planning Meeting, Society of Economic Geologists, Vancouver, British Columbia, May (V.S. Gillerman).

Society of Economic Geologists Conference on Ore Deposit Research, Denver, Colorado, October (V.S. Gillerman).

State Organizational Meetings, Advanced National Seismic System, Idaho Bureau of Disaster Services, Boise and Coeur d’Alene (R.M. Breckenridge).

Technical representative, Intergovernmental Water Advisory Group, Pocatello (J.A. Welhan).

Vice-President Elect, 2003, Society of Economic

Geologists (V.S. Gillerman).

Water Quality Workshop, Boise, January (V.S. Gillerman).

Workshop, Digital Mapping Techniques, Millersville, Pennsylvania, June (J.S. Freed, L.R. Stanford).

Media Interviews, Appearances, and Articles

City Wells Might Need Deepening: Idaho State Journal, June 15 (J.A. Welhan).

Graduate Thesis Committees

John Lee, Ph.D., Biology, Idaho State University (J.A. Welhan).

Rick C. Lovell, M.S., Geography, University of Idaho (R.M. Breckenridge).

Lee Morse, M.S., Geosciences, Idaho State University (J.A. Welhan).

Tom Rackow, M.S., Environmental Engineering, Idaho State University (J.A. Welhan).

Andy Smith, M.S., Geosciences, Idaho State University (J.A. Welhan).

Adele Williams, Ph.D., Geology, University of Idaho (R.M. Breckenridge).

Susan Wilson, M.S., Geology, University of Idaho (R.S. Lewis).

Grants and Contracts

Arco Project Involving Digital Compilation of the Arco 30' by 60' Quadrangle, Idaho: R.S. Lewis (U.S. Geological Survey, September 2001-August 2002, \$15,000).

Basalt Mapping in the Glenwood 7.5' Quadrangle: R.S. Lewis (Idaho Department of Lands, May 2002-March 2003, \$5,000).

Boise National Forest Abandoned Mine Discovery:

- E.H. Bennett, V.S. Gillerman, V.E. Mitchell, and others (U.S. Forest Service, Region 4, \$102,842, June 2001-September 2003).
- Continued Investigation of Abandoned/Inactive Mine Sites:* V.S. Gillerman (U.S. Bureau of Land Management, \$30,000, October 2000-December 2003).
- Conversion of Mapped Soil Properties for GIS Analysis of Septic Suitability:* J.A. Welhan (Three Rivers Resource, Conservation and Development District, July 2003-December 2003, \$18,600).
- Geologic Mapping in the Prater Mountain 7.5' Quadrangle:* R.S. Lewis (Idaho Department of Lands, May 2003-April 2004, \$5,000).
- Geologic Mapping in the Brown Creek Ridge 7.5' Quadrangle:* R.S. Lewis (Potlatch Corporation, May 2002-March 2003, \$5,000).
- Headwaters Project Involving Digital Compilation of the Nez Perce Pass, Elk City, and Kooskia 30' by 60' Quadrangles, Idaho:* R.S. Lewis (U.S. Geological Survey, September 2001-August 2002, \$12,070).
- Mitigation of Idaho Geologic Hazards, Earthquake Education Workshop:* R.M. Breckenridge and K.L. Othberg (Idaho Bureau of Disaster Services, March 2002-September 2002, \$40,000).
- Mitigation of Idaho Geologic Hazards, Earthquake Education Workshop:* R.M. Breckenridge and K.L. Othberg (Idaho Bureau of Disaster Services, April 2003-Nov 2003, \$45,000).
- STATEMAP Project, Geologic Mapping in the Sun Valley Urban Corridor, the Clearwater River Valley, the Kooskia 30' x 60' Quadrangle, and in Gooding, Jerome, and Twin Falls Counties:* K.L. Othberg, R.M. Breckenridge, R.S. Lewis, B. Bonnicksen, and V.S. Gillerman (U.S. Geological Survey, May 2002-April 2003, \$250,000).
- STATEMAP Project, Geologic Mapping in the U.S. 95/SR 55 McCall-Cascade Impact Corridor and in the Twin Falls, Orofino, and Sandpoint 30' x 60' Quadrangles:* K.L. Othberg, R.M. Breckenridge, R.S. Lewis, and V.S. Gillerman (U.S. Geological Survey, May 2003-April 2004, \$225,000).
- Statewide Ground-Water Quality Kriging Data Analysis, First Phase:* J.A. Welhan (Idaho Department of Water Resources, May 2002-June 2003, \$34,900).