

GERALD ALAN WEISENFLUH

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Kentucky Geological Survey
University of Kentucky
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CAREER-RELATED EXPERIENCE:

2008 – Present

Associate Director, Kentucky Geological Survey

2000 – 2008

Head, Geospatial Analysis Section, Kentucky Geological Survey. Managed programs related to geospatial information, digital mapping and related research projects. Oversaw database and Web development projects.

1991 – 2000

Geologist V, Kentucky Geological Survey, Coal and Mineral Section, University of Kentucky. Principal investigator for coal resource assessment program. Implements Geographic Information System in order to quantify restrictions to surface and underground mining. Member of digital geological mapping program.

1980 – 1991

Research Associate, Coal Research Group, Department of Geological Sciences, University of Kentucky. Planned and prepared proposals for mining related research projects. Supervised graduate students and administered work and budgets related to projects. Managed computer data base system for borehole data. Taught applied geology short courses to industry personnel.

1977 – 1978

Regional Geologist, Carolina Geoscience, Columbia, South Carolina. Supervised and conducted field studies related to evaluation of industrial mineral deposits in Southeastern United States.

1977 – 1977

Field Geologist, Atlantic Richfield Co., Uranium Division, Denver, Colorado. Conducted exploration drilling program for uranium deposits in central Wyoming.

1974 – 1975

Field Geologist, Johns-Manville Exploration Co., Denver, Colorado. Conducted field and mine adit mapping in order to evaluate platinum ore body in Stillwater Complex, Montana.

EDUCATION:

Ph.D. 1982	University of South Carolina, Columbia, South Carolina Area of specialty: basin analysis, coal geology and sedimentology.
M.S. 1978	University of South Carolina, Columbia, South Carolina. Area of specialty: igneous and metamorphic petrology.
B.A. 1975	The College of Wooster, Wooster, Ohio. Major: Geology - graduated Cum Laude. Senior thesis: mineralogy of glacial soils

RESEARCH INTERESTS:

- Application of geologic models to industrial exploration and mining problems.
- Coal resource assessment.
- Geologic factors affecting ground control and mineability of coal seams.

**COMPUTER
EXPERIENCE:**

- Computer treatment of geologic data.
- Unix on Sun Microsystems computer
- Dos and Windows
- Database management using Access and SQLServer
- Geographic Information Systems - Arc/Info, ArcGIS
- Fortran and Visual Basic programming

**SOCIETIES
AND HONORS:**

- President - Osborne Computer Group (1986 - 1988)
- Member - Sigma Xi (1975 - 1988)
- Tabor Award - University of South Carolina (1977)
- Moke Award - The College of Wooster (1975)

PRINCIPAL INVESTIGATOR ON RESEARCH PROJECTS:

2007 – 2009

U.S. Geological Survey. National Geological and Geophysical Data Preservation Program

2005 – 2009

Kentucky Department of Transportation. Database systems for accessing geotechnical data on the web

2001 – 2002

Kentucky Department of Transportation. Geologic impacts for transportation planning of I-66

2000

U.S. Office of Surface Mining. Future mountain-top removal mining in eastern Kentucky.

1995 – 1999

U.S. Geological Survey. National Coal Resource Assessment program.

1996 – 1997

Cyprus-Cumberland Mountain Coal. Roof Geology of the Hazard No.8 seam.

1994 – 1995

Unicorn Mining. Mine planning for the Fire Clay Rider Seam.

1991 – 1999

U.S. Geological Survey. Availability of coal for economic development in Eastern and Western Kentucky.

1990 – 1991

Ark Land Company. Geologic mapping of the Scotia mine in the Imboden seam - Harlan County, Kentucky.

1990 – 1991

Ark Land Company. Analysis of the Benham and Lynch property, southeast Kentucky.

1990 – 1991

Royal Dutch Shell Company. Delineation of sandstone body geometries in the Carboniferous of Eastern Kentucky.

1988 – 1990

Island Creek Corporation. Development of a megascopic classification for coal in the Appalachian coal fields.

1987 – 1988

Straight Creek Resources. Mine feasibility of the Hazard No. 9 seam, southeast Kentucky.

1985 – 1987

Straight Creek Resources. Ground control and mineability of the Hazard No. 4 (Fireclay) Seam, southeast Kentucky.

1984 – 1985

Starfire Coal Company. Mineability of the Hazard No. 7, 8 and 9 Seams, southeast Kentucky.

1982 – 1984

Mountain Coals, Inc. Ground control and mineability of the Hance Seam, southeast Kentucky.

1980 – 1986

U.K. Institute for Mining and Minerals Research. Lateral continuity of coal seams in eastern and western Kentucky.

1979 – 1981

U.S. Bureau of Land Management. Geologic factors influencing reclamation of federal lands in northern Alabama.

1978 – 1979

Utah International, Inc. Basin analysis of the Black Warrior Basin, Alabama and Mississippi.

INTERNATIONAL EXPERIENCE:

<u>China</u>	Six week investigation of coal mining regions in north central China (1991).
<u>Philippines</u>	Consultant to Island Creek Corporation for mine and property evaluation on Mindoro Island 1987).
<u>Indonesia</u>	Consultant to Utah International on coal exploration program in southeast Kalimantan (1983).

SHORT COURSES TOUGHT:

1998	Roof Control in Underground Coal Mines (Kentucky River Corporation)
1997	Coal Assessment Series: The Pond Creek Coal (Eastern Kentucky Coal Industry)
1987	Applied Geology for Underground Coal Mining and Property Evaluation. (University of Kentucky)
1986	Basin Analysis. (Utah International)
1984	Techniques for Coal Exploration (Utah International)
1981 - 1987	Methods of Core Logging and Description (University of Kentucky)

GRADUATE COMMITTEES CHAIRED:

- Overfield, B.L., 2011, A classification of Lower Paleozoic carbonate-bearing rocks for geotechnical applications: MS Thesis, University of Kentucky.
- Cornett, G.C., 2002, Penecontemporaneous faulting within the Pennsylvanian Pikeville to Four Corners Formations, Breathitt Group, southeastern Kentucky: MS Thesis, University of Kentucky.
- Shultz, M.G., 2003, Classification of paleochannels and their relationship to synsedimentary faulting within the lower Elkhorn coal zone, Pikeville Formation, Breathitt Group, southeastern Kentucky: MS Thesis, University of Kentucky.

PUBLICATIONS:

- Weisenfluh, G.A. and Broyles, Bill, 2010, Building an enterprise geotechnical database to support geologic mapping, Digital Mapping Techniques '09, Morgantown, WV, 10 p.
- Weisenfluh, G.A., 2010, Remaining resources of the Springfield Coal (W. Ky. No. 9) in western Kentucky: Kentucky Geological Survey, ser. 12, Map and Chart Series 197, 1 sheet.
- Weisenfluh, G.A., 2010, Remaining resources of the Herrin Coal (W. Ky. No. 11) in western Kentucky: Kentucky Geological Survey, ser. 12, Map and Chart Series 198, 1 sheet.
- Weisenfluh, G.A. and Curl, D.C., Kentucky Field Data Entry Tools Developed in ArcIMS, Digital Mapping Techniques 2008, Moscow, ID, May 18-21, 2008, [in press].
- Weisenfluh, G.A. and Curl, D.C., 2007, Unpublished geologic evidence and other databases of the Kentucky Digital Mapping Program, Digital Mapping Techniques '06, D.R. Soller, ed., USGS Open-File Report 2007-1285.
- Weisenfluh, G.A. and Carey, D.C., 2006, Generalized geologic map for land use planning: Carter County, KY: Kentucky Geological Survey, ser. 12, Map and Chart Series 132, one sheet.
- Weisenfluh, G.A., Curl, D.C., and Crawford, M.M., 2005, The Kentucky Geological Survey's Online Geologic Map and Information System, Digital Mapping Techniques 2005, Baton Rouge, La, April 24-27, 2005, USGS Open-File Report 2005-1428.
- North American Geologic Map Data Model (NADM) Steering Committee Data Model Design Team (DMDT), 2004, NADM conceptual model 1.0—a conceptual model for geologic map information; U.S. Geological Survey Open File Report 2004-1334, 60 p.
- Weisenfluh, G.A. and Carey, D.I., 2003, Kentucky land-use planning on the Web, *in* Soller, D.R., ed., Digital Mapping Techniques '03—Workshop Proceedings: U.S. Geological Survey Open File Report 03-471, p. 245.
- Boisvert, Eric, Brodaric, Boyan, Hastings, J.T., Johnson, B.R., McDonald, James, Richard, S.M., Schweitzer, P.N., Wahl, R.R., Weisenfluh, G.A., 2002, Progress report, North American geologic map data model design team, *in*, Soller, D.R., Digital Mapping Techniques '02 Workshop Proceedings Volume: U.S. Geological Survey Open File Report 02-370, p. 41, 45.
- Tewalt, S.J., Ruppert, L.F., Bragg, L.J., Weisenfluh, G.A., Thacker, E.E., Sites, R.S., Blake, B.M., Jr., Freeman, P.A., Bryant, L.C., and Butler, D.T., A digital resource model of the Middle Pennsylvanian Fire Clay coal zone, Pottsville Group, Central Appalachian Basin coal region, Chapter F, *in* Northern and Central Appalachian Basin Coal Regions Assessment Team, 2002 Resource Assessment of Selected Coal Beds and Zones in the Northern and Central Appalachian Basin Coal Regions: USGS Professional Paper 1625-C, 2 CD-ROM's.
- Ruppert, L.F., Tewalt, S.J., Bragg, L.J., Weisenfluh, G.A., Thacker, E.E., Blake, B.M., Jr., Sites, R.S., Freeman, P.A., Butler, D.T., and Bryant, L.C., A digital resource model of the Middle Pennsylvanian Pond Creek coal zone, Pottsville Group, Central Appalachian Basin coal region, Chapter G, *in* Northern and Central Appalachian Basin Coal Regions Assessment Team, 2002 Resource Assessment of Selected Coal Beds and Zones in the Northern and Central Appalachian Basin Coal Regions: USGS Professional Paper 1625-C, 2 CD-ROM's.
- Carter, M.D., Rohrbacher, T.J., Teeters, D.D., Scott, D.C., Osmonson, L.M., Weisenfluh, G.A., Loud, E.I., Sites, R.S., Axon, A.G., Wolfe, M.E., and Lentz, L.J., Coal availability, recoverability, and economic evaluations of coal resources in the northern and central Appalachian coal regions, Chapter J, *in* Northern and Central Appalachian Basin Coal Regions Assessment Team, 2002 Resource Assessment of Selected Coal Beds and Zones in the Northern and Central Appalachian Basin Coal Regions: USGS Professional Paper 1625-C, 2 CD-ROM's.
- Weisenfluh, G.A., Eaton, N.K. and Nelson, Ken, 2002, Distributed Spatial Databases—The MIDCARB Carbon Sequestration Project, *in* Soller, D.R., Digital Mapping Techniques '02 Workshop Proceedings Volume: U.S. Geological Survey Open File Report 02-370, p. 13-19.
- Ferm, J.C., Weisenfluh, G.A., and Smith, G.C., 2002, A method for development of a system of identification for Appalachian coal-bearing rocks, *in* Weisenfluh, G.A., ed., J.C. Ferm — Contributions to Coal Geology: International Journal of Coal Geology Special Volume, p. 93-104.
- Soller, D.R., Wahl, Ron, Weisenfluh, G.A., Broderic, Boyan, and Hastings, Jordan, 2001, Progress report on the National Geologic Map Database, Phase 3 — an online, "living" database of map information, *in*, Soller, D.R., Digital Mapping Techniques '01 Workshop Proceedings Volume: U.S. Geological Survey Open File Report 01-223, p. 71-78.
- Weisenfluh, G.A., 2001, Map unit descriptions and the North American data model, *in* Soller, D.R., ed, Digital Mapping Techniques '01 Workshop Proceedings, U.S. Geological Survey Open File Report 01-223, p. 79-86.
- G.A. Weisenfluh, W.M. Andrews Jr., R.E. Andrews, and J.K. Hielt, 2001, Coal Availability in Western Kentucky: Kentucky Geological Survey, ser. 12, Report of Investigations 8, 29 p.
- Thacker, E.E., Weisenfluh, G.A., Andrews, W.M., Jr., and Hielt, J.K., 2000, Coal resources of the Lower Elkhorn coal bed in eastern Kentucky: Kentucky Geological Survey, ser. 12, Map and Chart Series 2, scale 1:750,000, one sheet.
- Greb, S.F. and Weisenfluh, G.A., 2000, Mining geology of the Lower Elkhorn coal bed in eastern Kentucky: Kentucky Geological Survey, ser. 12, Map and Chart Series 4, one sheet.
- Thacker, E.E., Weisenfluh, G.A., Greb, S.F., and Esterle, J.A., 2000, Total coal thickness of the Fire Clay and Fire Clay Rider coals in eastern Kentucky: Kentucky Geological Survey, ser. 12, Map and Chart Series 5, one sheet.
- Thacker, E.E., Weisenfluh, G.A., Esterle, J.A., Greb, S.F., and Hielt, J.K., 2000, Coal Resources of the Fire Clay coal zone in Eastern Kentucky: Kentucky Geological Survey, ser. 12, Map and Chart Series 6, scale 1:750,000, one sheet.

- Esterle, J.A., Thacker, E.E., and Weisenfluh, G.A., 2000, Total coal thickness of the Upper Elkhorn No. 3A coal (lower bed) in eastern Kentucky: Kentucky Geological Survey, ser. 12, Map and Chart Series 7, one sheet.
- Esterle, J.A., Thacker, E.E., Weisenfluh, G.A., and Hiatt, J.K., 2000, Coal resources of the Upper Elkhorn No. 3A coal (lower bed) in Eastern Kentucky: Kentucky Geological Survey, ser. 12, Map and Chart Series 8, one sheet.
- Esterle, J.A., Thacker, E.E., Weisenfluh, G.A., and Hiatt, J.K., 2000, Coal resources of the Upper Elkhorn No. 3B coal (upper bed) in Eastern Kentucky: Kentucky Geological Survey, ser. 12, Map and Chart Series 9, one sheet.
- Greb, S.F., Hiatt, J.K., Weisenfluh, G.A., Andrews, R.E., and Sergeant, R.E., 1999, Geology of the Fire Clay coal in part of the Eastern Kentucky Coal Field: Kentucky Geological Survey, Ser. 12, Report of Investigations 2, 37 p.
- Greb, S.F., Weisenfluh, G.A., Andrews, R.A., R.E., Hiatt, J.K., Cobb, J.C., and Sergeant, R.E., 1999, Coal Availability study of the Fire Clay coal in part of the Eastern Kentucky Coal Field: Kentucky Geological Survey, Ser. 12, Report of Investigations 3, 18 p.
- Thacker, E.E., Weisenfluh, G.A., Andrews, W.M., Jr., 1998, Total coal thickness of the Lower Elkhorn coal bed in eastern Kentucky: Kentucky Geological Survey, ser. 11, Map and Chart Series 20, one sheet.
- Weisenfluh, G.A., Cobb, J.C., Ferm, J.C. and Ruthven, C.L., 1996, Kentucky's coal industry: Historical trends and future opportunities: Kentucky Geological Survey, Ser. 11, Information Circular 59, 9 p.
- Greb, S.F. and Weisenfluh, G.A., 1996, Paleoslumps in coal-bearing strata of the Breathitt Group (Pennsylvanian), Eastern Kentucky Coal Field, U.S.A.: International Journal of Coal Geology, v.31, p115-134.
- Weisenfluh, G.A., 1995, Coal availability and its relation to coal-resource studies in Eastern Kentucky: Proceedings of the Society of Mining Engineers, March, 1995.
- Andrews, R.A., Weisenfluh, G.A., Hiatt, J.K. and Sergeant, R.E., 1994, Available coal resources of the Salyersville South 7.5-minute quadrangle, Magoffin county, Kentucky: Kentucky Geological Survey, Ser. 11, Information Circular 47, 44 p.
- Weisenfluh, G.A., Andrews, R.E. and Sergeant, R.E., 1993, Available coal resources of the Handshoe 7.5-minute quadrangle, Knott County, Kentucky: Kentucky Geological Survey, Ser. 11, Information Circular 43, 45 p.
- Weisenfluh, G.A., Andrews, R.A., Hiatt, J.K., Greb, S.F., Chesnut, D.R., Jr. and Sergeant, R.E., 1992, Available coal resources of the Booneville 7.5-minute quadrangle, Owsley County, Kentucky: Kentucky Geological Survey, Ser. 11, Information Circular 42, 26 p.
- Weisenfluh G.A. and Ferm, J.C., 1991, Roof control in the Fireclay Coal Group, Southeastern Kentucky: Journal of Coal Quality, v.10, 67-74.
- Weisenfluh, G.A. and Ferm, J.C., 1991, Application of depositional models to mining problems, *in* D.C. Peters (ed.), Geology in Coal Resource Utilization: American Association of Petroleum Geologists, Energy Minerals Division Coal Volume, Tech Books, Fairfax, Va, 189-202.
- Weisenfluh, G.A. and Ferm, J.C., 1989, Reclamation characteristics of coal-bearing rocks on federal lands in northern Alabama: Southeastern Geology, v.29, No.4, p.221-234.
- Ferm, J.C. and Weisenfluh, G.A., 1989, Evolution of some depositional models in Late Carboniferous rocks of the Appalachian coalfields, *in* P.C. Lyons and B. Alpern (eds.), Peat and Coal; Origin, Facies and Coalification: International Journal of Coal Geology, v.12, p.259-292.
- Weisenfluh, G.A. and Ferm, J.C., 1984, Geologic controls on deposition of the Pratt seam, Black Warrior Basin, Alabama, U.S.A., *in* R.A. Rahmani and R.M. Flores, (eds.), Sedimentology of Coal and Coal-bearing Sequences: Spec. Public. Int. Ass. Sediment., v. 7, p. 317-330.
- Weisenfluh, G.A., 1981, Controls on formation of the Pratt Seam, Black Warrior Basin, Alabama, United States: *in* Proceedings of the International Coal Exploration Symposium, Calgary, Alberta, 3, pp. 100-108.
- Weisenfluh, G.A., Bailey, A. and Ferm, J.C., 1981, Reclamation characteristics of rock types and chemistry on federal coal lands in northern Alabama, *in* D.H. Graves (ed.), Proceedings 1981, Symposium on Surface Mining, Hydrology, Sedimentology and Reclamation: Lexington, KY, October 1981.
- Weisenfluh, G.A., and Snoke, A.W., 1978, An epizonal trondhjemite - quartz keratophyre complex near Calhoun Falls, South Carolina: South Carolina Geologic Notes, v. 22, no. 2, p. 48-73.

ABSTRACTS

- Weisenfluh, G.A., 2006, Providing Kentucky's geologic maps on the Web [abstr]: *in* Geological Society of America, Southeast Section, Abstracts with Programs, Knoxville, TN.
- Soller, D.R., Weisenfluh, G.A., and Stamm, N.R., 2005, The importance of unpublished, legacy information to the U.S. National Geologic Map Database [abs.]: International Association of Mathematical Geologists Annual Meeting, Toronto, August 21-26, 2005.
- Weisenfluh, G.A., Curl, D.C., and Crawford, M.M., Kentucky's online geologic map and information system [abs.], AAPG Eastern Section Meeting, Morgantown, WV, September 18-20, 2005.

- Weisenfluh, G.A., and Kuehn, K.W., 2005, Planning for Interstate 66 in south-central Kentucky: Increasing public awareness through geologic maps [abstr]: 42nd Annual Meeting of the American Institute of Professional Geologists, Lexington, KY, p. 62-63.
- Weisenfluh, G.A., Curl, D.C., and Crawford, M.M., and Sergeant, R.E., 2005, The Kentucky Geological Survey's online geologic map and information service [abs]: 42nd Annual Meeting of the American Institute of Professional Geologists, Lexington, KY, p. 60-61.
- Cobb, J.C., Anderson, W.H., and Weisenfluh, G.A., 2004, A new digital geologic map for Kentucky as a communication tool (abstr.), *in* Geological Society of America, Abstracts with Programs, Denver, Co.
- Curl, D.C., and Weisenfluh, G.A., 2004, Delivering geologic data to the public via the Internet with ArcIMS (abstr.), *in* Geological Society of America, Abstracts with Programs, Tysons Corner, VA, v.36, n.2.
- Weisenfluh, G.A., and Andrews, W.M., Jr., 2004, Roadcut database for eastern Kentucky coal-bearing rocks (abstr.), *in* Geological Society of America, Abstracts with Programs, Tysons Corner, VA, v.36, n.2.
- Weisenfluh, G.A., 2003, Kentucky Geological Survey Geologic Map Database (abstr.), *in* Geological Society of America, Abstracts with Programs, Seattle, WA.
- Weisenfluh, G.A., and Ruthven, C.L., 2003, Digital geologic maps and map databases at the Kentucky Geological Survey (abstr), *in* Geological Society of America, Abstracts with Programs, Seattle, WA.
- Weisenfluh, G.A., Carter, M.D., Treworgy, C.G., Rohrbacher, T.J., Molnia, C.L., and Osmonson, L., 1999, Refined methods for evaluation of coal resources, quantum leaps in productivity (abstr), *in* Sixteenth Annual Pittsburgh Coal Conference, October 13, 1998, Pittsburgh, PA.
- Weisenfluh, G.A. and Thacker, E.E. 1998, Coal-bed thickness variation: Implications for resource assessment (abstr), *in* Geological Society of America, February 30, 1998, Charleston, WV.
- Thacker, E.E and Weisenfluh, G.A, 1998, Implications of coal-bed splitting for national coal assessment (abstr), *in* Fifteenth Annual Pittsburgh Coal Conference, September 15, 1998, Pittsburgh, PA.
- Andrews, W.M., Jr., Thacker, E.E, and Weisenfluh, G.A., 1998, Coal-bed facies and coal-quality mapping: Application of a comprehensive GIS for resource analysis (abstr), *in* The Society of Organic Petrologists Annual Meeting, July 27, 1998, Halifax, Nova Scotia.
- Andrews, R.E., Thacker, E.E. and Weisenfluh, G.A., 1997, Regional mapping of coal beds in Kentucky (abstr), *in* American Assoc. Petrol. Geol., Eastern Section Meeting, September 29, 1997, Lexington, KY.
- Cobb, J.C. and Weisenfluh, G.A., 1997, Coal resource estimates in Kentucky – Historical perspective (abstr), *in* American Assoc. Petrol. Geol., Eastern Section Meeting, September 29, 1997, Lexington, KY.
- Weisenfluh, G.A., 1997, Coal availability and recoverability studies in Kentucky: Implications for national coal assessment (abstr), *in* Society of Mining Engineers Annual Meeting, February 24-27, Denver, CO.
- Weisenfluh, G.A., 1995, Coal availability and its relation to coal-resource studies in eastern Kentucky (abstr), *in* Society of Mining Engineers Annual Meeting, Preprint No. 95-53, March 7-9, Denver, CO.
- Weisenfluh, G.A. and Ferm, J.C., 1990, Geologic controls on mineability in some Appalachian coal seams (abstr), *in* Geol. Soc. Amer. Abstracts with Programs, v. , No. , abs. no. 13119.
- Weisenfluh, G.A. and Ferm, J.C., 1989, Synsedimentary faulting in the coal measures of Eastern Kentucky (abstr), *in* Geol. Soc. Amer. Abstracts with Programs, v.21, No.6, abs. no. 23622.
- Weisenfluh, G.A. and Ferm, J.C., 1988, Were present thick coals in "lows" originally topographic "highs"? (abstr), *in* Geol. Soc. Amer., Northcentral Section annual meeting, Akron, OH, 1988.
- Weisenfluh, G.A. and Ferm, J.C., 1984, Controls on coal (peat) accumulation in paralic environments (abstr), *in* Geol. Soc. Amer., annual meeting, Reno, Nevada, 1984.
- Neuder, G.L., Mathis, H.L., Weisenfluh, G.A. and Ferm, J.C., 1984, Structural and sedimentological controls on the deposition of the No. 9 to No. 13 coal interval in western Kentucky (abstr), *in* Geol. Soc. Amer., Northcentral Section annual meeting, Lexington, KY, 1984.
- Weisenfluh, G.A., 1982, Structural controls on deposition of the Pratt seam, northern Alabama, U.S.A. (abstr), *in* International Congress on Sedimentology, Hamilton, Ontario, 1982.
- Bailey, A., Weisenfluh, G.A., Ferm, J.C. and Despard, T., 1981, Relationships between laboratory chemical properties and a field classification for coal-bearing sedimentary rocks in Alabama (abstr), *in* Geol. Soc. Amer., annual meeting, Cincinnati, OH, 1981.
- Weisenfluh, G.A., 1977, An epizonal trondhjemite-quartz keratophyre igneous complex: island arc volcanism within the South Carolina Piedmont, (abstr), *in* Geol. Soc. Amer., Southeast section meeting, Winston Salem, NC, 1977.
- Howell, D.E. and Weisenfluh, G.A., 1975, The McDuffie gold belt: regional geology of volcanogenic sulfide deposits associated with the Carolina Slate Belt, South Carolina-Georgia, (abstr), *in* Geol. Soc. Amer., Southeastern section meeting, 1975.

BOOKS

- Weisenfluh, G.A., editor, 2002, John C. Ferm—contributions to coal geology: International Journal of Coal Geology, v.49, 214 p.

Ferm, J.C., Smith, G.C., Weisenfluh, G.A. and Dubois, S.B., 1985, Cored rocks in the Rocky Mountain and High Plains Coal Fields: Department of Geology, University of Kentucky, Lexington, KY, 90 p.

Ferm, J.C. and Weisenfluh, G.A., 1981, Cored rocks of the Southern Appalachian Coal Fields: Department of Geology, University of Kentucky, Lexington, KY, 93 p.

Ferm, J.C. and Horne, J.C., 1979, Carboniferous Depositional Environments in the Appalachian Region, Ferm, J.C., Horne, J.C., Weisenfluh, G.A. and Staub, J.R. (editors): Carolina Coal Group, Department of Geology, Univ. of South Carolina, Columbia, SC, 760 p.

REPORTS

Esterle, J.S. and Weisenfluh, G.A., 1988, Analysis of the Hazard No. 9 seam coal group - Pine Mountain Property: Prepared for Straight Creek Resources.

Weisenfluh, G.A., 1987, Minability of the Hazard No. 4 seam (Fireclay) on the Pine Mountain Property: Prepared for Straight Creek Resources.

Weisenfluh, G.A., Ferm, J.C. and Shy, T.L., 1985, Geologic analysis of the Hazard No.7, No.8 and No.9 seams on the Starfire and Lost Mountain Properties: Prepared for Cyprus Coal Company.

Weisenfluh, G.A., Ferm, J.C., Miller, T.R. and Esterle, J.S., 1983, Geologic investigation of the Hance seams at Brownies Creek Collieries: Prepared for Mountain Coals, Inc.