

JOHN W. HESS

EDUCATION

- 1969 B.S. Geosciences (Geophysics), Pennsylvania State University.
1974 Ph.D. Geology (Hydrogeology), Pennsylvania State University.
1994 Stanford Executive Program, Graduate School of Business, Stanford University

EXPERIENCE

- 2001-Present Executive Director, The Geological Society of America, Responsible for providing leadership and managing headquarters staff and operations and for putting into practice the policies and directives of the Council and Executive Committee. Responsible for maintaining good communication and working relationships between GSA and its divisions, sections and Associated, Allied Societies, and other national and international societies and organizations. Serves as Vice President of the GSA Foundation.
- 2000-2001 Legislative Fellow in Senator Harry Reid's Office (D-NV), Washington, DC. Worked on radioactive waste, water, global climate change, renewable energy and other science and technology related issues. Worked closely with the Environment and Public Works and Appropriations Subcommittee on Energy and Water Committees.
- 1995-2001 Vice President for Academic Affairs, Desert Research Institute, University and Community College System of Nevada. Provided leadership for scholarship, creative work and teaching within the Institute and served as principal administrator for those issues involving faculty appointments, professional advancement, sabbatical leave, grievance, retirement, teaching and other faculty involvement at the UCCSN system level. Responsible for international activities 1999 – 2000.
- 2000 Acting Vice President for Finance and Administration, Desert Research Institute. Responsible for budgetary and fiscal management and planning, human resources, facilities, information technology, and safety.
- 1989-2000 Executive Director, Division of Hydrologic Sciences (Water Resources Center), Desert Research Institute, University and Community College System of Nevada. Responsible for the administration and scientific leadership of the Division including acquisition of new research programs, development of long-range plans and coordination of research programs. The Center consisted of more than 85 professional, technical, and support staff and operates on an annual research budget of more than \$7 million.
- 1998-1999 & 1994-1995 Interim Vice President for Research, Desert Research Institute, University and Community College System of Nevada. Responsible for business development activities for the Institute. Member of the University and Community College System of Nevada Research Affairs Council (Chair) and Academic Affairs Council.
- 1987-1989 Deputy Executive Director, Water Resources Center, Desert Research Institute, University of Nevada System, Las Vegas, Nevada. Had joint responsibility with the Executive Director for

coordinating the research activities of 80 professional, technical and support staff and oversee an annual research budget of \$5 million.

- 1986-2001 Research Professor, Division of Hydrologic Sciences (Water Resources Center), Desert Research Institute; Professor, Geosciences Department and Water Resources Management Program, University of Nevada, Las Vegas; and Professor, Department of Geological Sciences and Hydrologic Sciences Program, University of Nevada, Reno; University and Community College System of Nevada. Directed and conducted hydrochemical, hydrogeologic, isotopic, and geophysical research pertaining to carbonate terrains, unsaturated zones, and ground-water monitoring methodologies. Taught Isotope Hydrology, Water Resource Geochemistry, Hydrogeology, Hydrologic Techniques, Hydrologic Field Camp, and seminar courses. Supervised graduate student research.
- 1978-1986 Associate Research Professor, Water Resources Center, Desert Research Institute; and Associate Professor, Department of Geology, University of Nevada, Reno; University of Nevada System, Las Vegas, Nevada. Conducted and directed hydrogeologic, isotopic, hydrogeochemical, and geophysical research pertaining to carbonate terrains, unsaturated zones, urban and natural environment storm runoff, marsh nutrient chemistry, natural nitrate problems, ground-water monitoring methodologies and hazardous waste monitoring. Taught graduate courses and supervised graduate student research.
- 1981-1987 Director, Environmental Isotope Laboratory, Water Resources Center, Desert Research Institute, University of Nevada System, Las Vegas, Nevada. Responsible for the operation of an isotope laboratory capable of analyzing for hydrogen, oxygen, and carbon stable isotope ratios.
- 1980-1981 Sabbatical Leave - Honorary Research Fellow, Department of Geology, University of Glasgow, Glasgow, Scotland, attached to the Isotope Geology Unit, Scottish Universities Research Reactor Centre, East Kilbride, Scotland. Conducted a stable isotope hydrology research project in the Yorkshire Dales, England pertaining to the movement of water through the karst aquifer system and geochronological research using Th/U age dating methods on speleothems from Kentucky and Great Britain.
- 1974-1978 Assistant Research Professor, Water Resources Center, Desert Research Institute, University of Nevada System, Las Vegas, Nevada. Conducted hydrogeologic and hydrogeochemical research pertaining to carbonate terrains, unsaturated zone radionuclide migration, shallow ground-water contamination, playas and resource evaluation and management.
- 1969-1974 Graduate Assistant, Pennsylvania State University, University Park, Pennsylvania.
1973-1974 Materials Research Laboratory, Conducted research on the Laser Ramon Spectroscopy of hydrated salts.
1971-1973 Institute for Research on Land and Water Resources, Conducted research on the use of hydrograph analysis for the management of carbonate aquifers in the Central Kentucky Karst.
1970-1971 Materials Research Laboratory, Conducted research on the candoluminescence of transition metal phosphorus and calcium sulfate.
1969-1970 Geophysics Department, Conducted research on acoustical methods for determination of well casing length and depth to water and electrical resistivity methods of fracture trace location.

PROFESSIONAL ORGANIZATION MEMBERSHIP

American Association of the Advancement of Science
American Geophysical Union
American Institute of Hydrology
American Water Resources Association
Cave Research Foundation - Fellow
Geological Society of America - Fellow
The Geochemical Society
International Association of Geochemistry and Cosmochemistry
International Association of Hydrogeologists
National Speleological Society - Fellow
Society of the Sigma Xi

AWARDS

Cave Research Foundation Graduate Fellowship – 1970
Fellow - Cave Research Foundation - 1971
Fellow - National Speleological Society - 1977
Fellow - Geological Society of America - 1992
Centennial Fellow - College of Earth and Mineral Sciences, Pennsylvania State University – 1996
Listed in Who's Who in America
Listed in Who's Who in the West
Listed in International Who's Who
Listed in Strathmore's Who's Who
University and Community College System of Nevada Outstanding Administrator, 1996-97
University and Community College System of Nevada Outstanding Faculty, 2001
Research Professor and Executive Director Emeritus, Desert Research Institute - 2001

ARTICLES, REPORTS AND PAPERS (*Paper also presented at meeting.)

- *1. Hess, J.W., and N.W. Davis. 1969. Butler Cave - Sinking Creek System, Virginia, USA. *V. Int. Kongr. Speleologic*, Stuttgart, Abh. Bd 2, pp. S7/1-7/7.
2. Hess, J.W., N.W. Davis and F.L. Wefer. 1971. Hydrogeology of Burnsville Cove, Virginia. *The Nittany Grotto News*, 19:3, pp. 148-157.
- *3. Harmon, R.S., J.W. Hess, R.L. Jacobson, E.T. Shuster, C. Haygood and W.B. White. 1972. Chemistry of Carbonate Denudation in North America. *Trans. Cave Res. Group Great Britain*, 14:2, pp. 96-103.
4. Brucker, R.W., J.W. Hess and W.B. White. 1972. Role of Vertical Shafts in the Movement of Ground Water in Carbonate Aquifers. *Ground Water*, 10:6, pp. 5-13.
- *5. Hess, J.W., and W.B. White. 1973. Analysis of Karst Aquifers from Hydrographs of Karst Springs. *Proceedings of the 6th International Congress of Speleology*, 4: pp. 115-120.
- *6. Harmon, R.S., J.J. Drake, J.W. Hess, R.L. Jacobson, D.C. Ford, W.B. White, J. Fish, J. Coward, R. Ewers and J. Quinlan. 1973. Geochemistry of Karst Waters in North America. *Proceedings of the 6th International Congress of Speleology*, 4: pp. 103-114.
7. Hess, J.W. 1974. Hydrochemical Investigations of the Central Kentucky Karst Aquifer System. Ph.D. Dissertation, The Pennsylvania State University, 218 pp.
8. Hess, J.W., J.R. Sweet and W.B. White. 1974. Candoluminescence in Transition-Ion Activated Oxide Phosphors. *J. Electrochem. Soc.*, 121:1, pp. 142-145.

- *9. Hess, J.W., S.G. Wells and T.A. Brucker. 1974. A Survey of Springs along the Green and Barren Rivers in the Central Kentucky Karst. *Natl. Speleol. Soc. Bull.* 36:3, pp. 1-7.
10. Hess, J.W., and W.B. White. 1974. Hydrograph Analysis of Carbonate Aquifers, Institute for Research on Land and Water Resources. The Pennsylvania State University, Research Publication No. 83, 63 pp.
11. Westphal, J.A., R.L. Bateman, E.N. Cooper, J.L. Hainline, J.W. Hess, J.L. Mahoney and R.O. Patt. 1975. Reconnaissance Study of Water and Botanical Resources of Spring Mountain Ranch and Pine Creek Site of Red Rock Recreational Area, Clark County, Nevada. Center for the Water Resources Research, Desert Research Institute, Publication No. 41035, 214 pp.
12. Harmon, R.S., W.B. White, J.J. Drake and J.W. Hess. 1975. Regional Hydrochemistry of North American Carbonate Terrains. *Water Resources Research*, 11:6, pp. 963-967.
- *13. Hess, J.W. 1975. A Review of Cave Geology and Hydrology. National Cave Management Symposium Proceedings, Albuquerque, New Mexico, pp. 28-31.
14. Patt, R.O., and J.W. Hess. 1976. Characterization of Nitrogen Sources Contaminating Shallow Ground Water in an Arid Basin, Las Vegas Area, Nevada. Water Resources Center, Desert Research Institute, Technical Report Series H-W, Publication No. 26, 44 pp.
15. Maxey, G.B., J. Keith, J.W. Hess and D. Schulke. 1976. Legal, Economic, Social and Management Aspects of Selected Ground-Water Mining Areas in the United States, prepared for the National Water Plan of Mexico and the United Nation's Development Program. Water Resources Center, Desert Research Institute, Publication No. 42027, 74 pp.
- *16. Hess, J.W. 1976. A Review of Hydrogeology of the Central Kentucky Karst. *NSS Bull.* 38:4, pp. 99-102.
17. Hess, J.W., and M.D. Mifflin. 1976. Water Quality Investigations of Fort Churchill Historic State Monument, Lyon County, Nevada. Water Resources Center, Desert Research Institute, Publication No. 41043, 34 pp.
- *18. Hess, J.W. 1976. The Butler Cave-Sinking Creek System and the Butler Cave Conservation Society. National Cave Management Symposium Proceedings, Mountain View, Arkansas, pp. 22-26.
19. Hess, J.W. 1976. Report on Workshop II: Cave Inventory, Valuation and Assessment. National Cave Management Symposium Proceedings, Mountain View, Arkansas, p. 27.
- *20. Hess, J.W., and R.O. Patt. 1977. Nitrogen Contamination Sources in Shallow Ground Water, Las Vegas Area, Nevada. Water Resources Center, Desert Research Institute, Technical Report Series H-W, Publication No. 32, 60 pp.
- *21. Hess, J.W. 1977. Interpretation of Chemical Hydrographs for the Central Kentucky Karst. *Proceedings of the 1976 NSS Annual Convention*, Morgantown, West Virginia, West Virginia Speleological Survey, pp. 25-29.
22. Hess, J.W. 1977. Summary Report of Session 7, Water Supply II. *Hydrologic Problems in Karst Regions*, pp. 472-473.
23. Drake, J.S., T.M.L. Wigley, R.S. Harmon, W.B. White and J.W. Hess. 1977. Reply to Comment on "Regional Hydrochemistry of North American Carbonate Terrains," and "Effect of Climate on the Chemistry of Carbonate Ground Water." *Water Resources Research*, 13:5, p. 859.
24. Bateman, R.L., and J.W. Hess. 1978. Hydrologic Inventory and Evaluation of Nevada Playas. Water Resources Center, Desert Research Institute, Publication No. 41049, 18 pp.

25. Hess, J.W., and M.D. Mifflin. 1978. A Feasibility Study of Water Production From Deep Carbonate Aquifers in Nevada. Water Resources Center, Desert Research Institute, Publication No. 41054, 125 pp.
26. Mifflin, M.D., and J.W. Hess. 1979. Regional Carbonate Flow Systems in Nevada. *Journal of Hydrology*, 43, pp. 217-237.
27. Schmidt, A., and J.W. Hess. 1980. Nitrogen and Phosphorus Hydrochemistry in Las Vegas Wash. Water Resources Center, Desert Research Institute, Publication No. 41063, 65 pp.
28. Hess, J.W., and R.L. Jacobson. 1980. Water Supply Investigation for Fort Churchill Historic State Monument, Lyon County, Nevada. Water Resources Center, Desert Research Institute, Report No. 41064, 21 pp.
29. Hess, J.W., and D.E. Zimmerman. 1980. Characterization of Storm Runoff in Las Vegas Valley, Nevada. Water Resources Center, Desert Research Institute, Publication No. 41067, 57 pp.
- *30. Hess, J.S., and R.S. Harmon. 1981. Geochronology of Speleothems from the Flint Ridge Mammoth Cave System. *Proceedings of the Eight International Congress of Speleology* 1: pp. 433-436.
- *31. Hess, J.W., and R.L. Jacobson. 1981. Natural Nitrate Occurrence in Closed Basins in Southwestern United States. *Quality of Groundwater* (W. Van Duijvenbooden, P. Glasbergen and H. Van Lelyveld, Eds.), Elsevier Scientific Publishing, Co., Amsterdam, pp. 117-120.
32. Davis, N.W., and J.W. Hess. 1982. Hydrogeology of the Drainage System, Burnsville Cove, Virginia. *NSS Bull.* 44:3, pp. 78-83.
33. Harmon, R.S., and J.W. Hess. 1982. Ground-Water Geochemistry of the Burnsville Cove Area, Virginia. *NSS Bull.* 44:3, pp. 84-89.
34. White, W.B., and J.W. Hess. 1982. Geomorphology of Burnsville Cove and the Geology of the Butler Cove - Sinking Creek System. *NSS Bull.* 44:3, pp. 67-77.
35. White, W.B., and J.W. Hess. 1982. The Caves and Karst of Burnsville Cove, Virginia. Introduction. *NSS Bull.* 44:3, pp. 47.
36. Trudeau, D.A., J.W. Hess and R.L. Jacobson. 1981. Hydrogeology of the Littlefield Springs, Arizona. *Ground Water*, 21:3, pp. 325-333.
- *37. Adams, W.M., S.W. Wheatcraft and J.W. Hess. 1983. Downhole Sensing Equipment for Hazardous Waste Site Investigations. *Proceedings of National Conference on Management at Uncontrolled Hazardous Waste Sites*, Washington, D.C., HMCRI, Silver Spring, Maryland, pp. 108-113.
38. Wheatcraft, S.W., J.W. Hess, W.M. Adams, R. Evans and L.G. McMillion. 1984. Equipment and Techniques Applicable to Subsurface Sensing and Monitoring at Hazardous Waste Sites. Water Resources Center, Desert Research Institute, Publication No. 41095, 78 pp.
39. Hess, J.W., S.W. Wheatcraft, J.E. Edkins, R.L. Jacobson and D.E. Zimmerman. 1984. Geothermal Environmental Impact Assessment: An Approach to Monitoring Groundwater Impacts from Development, Conversion and Waste Disposal. EPA-600/154-84-046.
- *40. Hess, J.W., D.D. Spencer, S.W. Wheatcraft and W.M. Adams. 1984. Evaluation of the Applicability of Some Existing Borehole Instruments to Hazardous Waste Site Characterization and Monitoring. *Proceedings of the NWWA Conference on Surface and Borehole Geophysical Methods in Ground Water Investigations*, San Antonio, Texas, pp. 762-788.

41. Hess, J.W., and R.L. Jacobson. 1984. Hydrology of the Nevada Test Site and Southern Amargosa Desert (Field Trip 21), in Western Geological Excursions (J. Lintz, Jr., eds.). *Geological Society of America*, 3: pp. 224-248.
42. Sutcliffe, A.J., T.C. Lord, R.S. Harmon, M. Ivanovich, A. Rae and J.W. Hess. 1985. Wolverine in Northern England at c. 83Ka: Evidence for Terrestrial Climate Change with Isotope Stage 5. *Quaternary Research* 24: pp. 73-86.
43. Dugan, J.P., Jr., J. Borthwick, R. Harmon, M.A. Gagnier, J.E. Glahn, E.P. Knsel, S. Macleod, J.A. Viglino and J.W. Hess. 1985. Guanidin Hydrochloride Method for Determination of Water Oxygen Isotope Ratios and the Oxygen-18 Fractionation between Carbon Dioxide and Water at 25°C. *Analytical Chemistry*, 57:4 p. 1734-1736.
44. French, R.H., and J.W. Hess. 1985. Radionuclide Transport by Surface Water: Preliminary Studies in Fortymile Canyon. Water Resources Center, Desert Research Institute, Publication No. 45047, (DOE/NV/10384-06) 33 pp.
45. LaBreque, D.J., S.L. Pierett, A.T. Baker and J.W. Hess. Hydrocarbon Plume Detection at Stovepipe Wells, California.
46. Atkinson, T.C., T.J. Lawson, P.L. Smart, R.S. Harmon and J.W. Hess. 1986. New Data on Speleothem Deposition and Paleoclimate in Britain Over the Last Forty Thousand Years. *Journal of Quaternary Science*, 1:1, pp. 67-72.
47. Tyler, S.W., W.A. McKay, J.W. Hess, R.L. Jacobson and K.C. Taylor. 1986. Effects of Surface Collapse Structures on Infiltration and Redistribution. Water Resources Center, Desert Research Institute, Publication No. 45045 (DOE/NV/10384-04), 48 pp.
48. Jacobson, R.L., M.S. Henne and J.W. Hess. 1986. A Reconnaissance Investigation of Hydrochemistry and Hydrology of Rainier Mesa. Water Resources Center, Desert Research Institute, Publication No. 45046 (DOE/NV/10384-05), 54 pp.
49. Wheatcraft, S.W., K.C. Taylor, J.W. Hess and T.M. Morris. 1987. Borehole Sensing Methods for Ground-Water Investigations at Hazardous Waste Sites. PB87-132783/WEP, 81 pp.
50. Tyler, S.W., M.R. Whitbeck, M.W. Kirk, J.W. Hess, L.G. Everett, D.K. Dreamer and B.H. Wilson. 1987. Processes Affecting Subsurface Transport of Leaking Underground Tank Fluids. PB87-201521/WEP, 87 pp.
51. Lyles, B.F., R.L. Jacobson and J.W. Hess. 1987. Reconnaissance of Groundwater Quality in Southern Nevada. Water Resources Center, Desert Research Institute, Publication No. 41101, 87 pp.
- *52. Russell, C.A., J.W. Hess and S.W. Tyler. 1987. Hydrologic Investigations of Flow in Fractured Tuffs in Rainier Mesa, Nevada Test Site. *Flow and Transport through Unsaturated Fractured Rock*, D.D. Evans and T.J. Nicholsons, eds., AGU Geophysical Monograph 42, pp. 43-50.
53. Blegen, R.P., K.F. Pohlmann and J.W. Hess. 1987. Bibliography of Ground-Water Sampling Methods. U.S. EPA 600/X-87/325, 43 pp.
- *54. Hess, J.W., and S.D. Smith. 1987. Isotopic Analysis of Bishop Creek Hydrology and Vegetation Water Sources. *Proceedings of the PGE and SCE Riparian Conference*, May 11, 1987.
55. Hess, J.W., and S.D. Smith. 1987. Progress Report: Isotopic Analysis of Bishop Creek Hydrology and Vegetation Water Sources. Water Resources Center, Desert Research Institute, Las Vegas, NV, 34 pp.

56. Hess, J.W., and W.B. White. 1988. Storm Responses of the Karstic Carbonate Aquifer of Southcentral Kentucky. *Journal of Hydrology*, 99: pp. 235-252.
57. Pohlmann, K.F., and J.W. Hess. 1988. Generalized Ground-Water Sampling Device Matrix. U.S. EPA 600/X-88/079, 4 pp.
58. Blegen, R.P., J.W. Hess, F.L. Miller, R.R. Kinnison and J.E. Denne. 1988. Field Comparisons of Ground-Water Sampling Methods - Interim Report. U.S. EPA 600/X-88/260.
59. Russell, C.A., J.W. Hess and S.W. Tyler. 1988. Hydrogeological Investigations of Flow in Fractured Tuffs, Rainier Mesa, Nevada Test Site. Water Resources Center, Desert Research Institute, Publication No. 45062, (DOE/NV/10384-21).
60. Lyles, B.F., and J.W. Hess. 1988. Isotope and Ion Geochemistry in the Vicinity of the Las Vegas Valley Shear Zone. Water Resources Center, Desert Research Institute, Publication No. 41111, 78 pp.
61. Pohlmann, K.F., and J.W. Hess. 1988. Generalized Ground Water Sampling Device Matrix. *Ground Water Monitoring Review*, 8:4 pp. 82-84.
62. Taylor, K.C., J.W. Hess and A. Mazzella. 1989. Field Evaluation of a Slim Hole Borehole Induction Tool. *Ground Water Monitoring Review*, 9:1 pp. 100-104.
63. Hess, J.W., S.G. Wells, J.F. Quinlan and W.B. White. 1989. Hydrogeology of the Southcentral Kentucky Karst. Chap. 2 in *Karst Hydrology: Concepts From the Mammoth Cave Area*, W.B. White and E.L. White, eds., Van Nostrand-Reinhold, New York, pp. 15-63.
64. Hess, J.W., and W.B. White. 1989. Water Budget and Physical Hydrology, Chap. 4 in *Karst Hydrology: Concepts From the Mammoth Cave Area*. W.B. White and E.L. White, eds., Van Nostrand-Reinhold, New York, pp. 105-126.
65. Hess, J.W., and W.B. White. 1989. Chemical Hydrology, Chap. 6 in *Karst Hydrology: Concepts From the Mammoth Cave Area*. W.B. White and E.L. White, eds., Van Nostrand-Reinhold, New York, pp. 145-174.
66. Hurst, T.L., S.W. Tyler and J.W. Hess. 1990. Red Canyon Wash Infiltration Studies. Water Resources Center, Desert Research Institute, Publication No. 45066, (DOE/NV/10384-25).
67. Taylor, K.C., J. Hess, J. Hayworth and A. Mazzella. 1990. Comparisons of Three Methods to Determine the Vertical Stratification of Pore Fluids. *Ground Water Monitoring Review*, 10:1 pp. 91-95.
68. Taylor, K.C., S.W. Wheatcraft, J.W. Hess, J. Hayworth and F. Molz. 1990. Evaluation of Methods for Determining the Vertical Distribution of Hydraulic Conductivity. *Ground Water*, 28:1 pp. 88-98.
69. Ingraham, N.L., R.L. Jacobson, J.W. Hess and B.F. Lyles. 1990. Stable Isotopic Study of Precipitation and Spring Discharge on the Nevada Test Site. Water Resources Center, Desert Research Institute, Publication No. 45078, (DOE/NV/10845-03).
70. Lyles, B.F., J. Edkins, R.L. Jacobson and J.W. Hess. 1990. Time Series of Ion and Isotope Geochemistry of Selected Springs of the Nevada Test Site, Nye County, Nevada. Water Resources Center, Desert Research Institute, Publication No. 45068, (DOE/NV/10384-27).
- *71. Bax-Valentine, V., L. Preator and J. Hess. 1990. Feasibility of Storm Water for Recharge in the Las Vegas Valley. *Proceedings of ASCE Hydraulic Division 1990 National Conference on Hydraulic Engineering and the International Symposium on the Hydraulics/Hydrology of Arid Lands*.

72. Ingraham, N.L., J. Chapman and J.W. Hess. 1990. Stable Isotopes in Cave Pool Systems: Carlsbad Caverns, New Mexico. *Chemical Geology, Isot. Geosci. Sect.*, **86**, pp. 65-74.
73. Taylor, K., J. Hess and S. Wheatcraft. 1990. Final Report Evaluation of Selected Borehole Geophysical Methods for Hazardous Waste Site Investigations and Monitoring. Water Resources Center, Desert Research Institute, Publication No. 41129.
74. Pohlmann, K.F., R.P. Blegen and J.W. Hess. 1990. Field Comparison of Ground-Water Sampling Devices for Hazardous Waste Sites: An Evaluation Using Volatile Organic Compounds. Water Resources Center, Desert Research Institute, Publication No. 41130.
- *75. Ingraham, N.L., J.B. Chapman and J.W. Hess. Cave Hydrology of Carlsbad Cavern, New Mexico: Stable Isotopic Analysis. *Proceedings of International Symposium and Field Seminar on Hydrogeologic Processes in Karst Terranes*, Antalya, Turkey, October 1990.
76. Ingraham, N.L., B.F. Lyles, R.L. Jacobson and J.W. Hess. 1991. Stable Isotopic Study of Precipitation and Spring Discharge in Southern Nevada. *Journal of Hydrology*, **125**, pp. 243-258.
77. Space, M.L., N.L. Ingraham and J.W. Hess. 1991. The Use of Stable Isotopes in Quantifying Groundwater Discharge to a Partially Diverted Creek. *Journal of Hydrology*, **129**, pp. 175-193.
78. Chapman, J.B., N.L. Ingraham and J.W. Hess. 1992. Isotopic Investigation of Infiltration and Unsaturated Zone Flow Processes at Carlsbad Cavern, New Mexico. *Journal of Hydrology*, **133**:3-4, pp. 343-364.
79. Hess, J.W. 1992. Hydrogeology of Regional Carbonate Aquifers in Eastern Nevada. *Hydrogeology of Selected Karst Regions*, W. Back, J.S. Herman, and H. Paloc, eds., Hannover: Heise (International Contributions to Hydrogeology; Vol. 13).
80. Hess, J.W. and W.B. White. 1993. Groundwater Geochemistry in the South Central Kentucky Karst Aquifer. *Applied Geochemistry*, **8**: pp. 189-204.
81. Hess, J.W., 1993, HydroGIS: The View from Cyberland, (A Book Review), *Rivers*, **4**:4, pp346-347.
82. Hess, J.W., 1996, Politics and Economics: Geological Research Bridging the Gulf - The Near-Term Future - Part 1, Perspective 3: The Changing U.S. Political Climate, *GSA Today*, **6**:3, pp11-12.
83. Slattery, L.D. and J.W. Hess, 1997, Ebb and Flow Behavior of a Karst Spring, Kings Canyon National Park, California, in *Karst Waters & Environmental Impacts*, Balkema, Rotterdam, pp 327-333.
84. Acheampong, S.Y. and J.W. Hess. 1998, Hydrogeologic and Hydrochemical Framework of the Shallow Groundwater System in the Southern Voltaian Sedimentary Basin of Ghana, *Hydrogeology Journal*, **6**: pp527-537.
85. Dougherty, P.H., R.A. Jameson, S.R.H. Worthington, G.N. Huppert, B.J. Wheeler and J.W. Hess. 1998. Chapter 7 Karst Regions of the Eastern United States with Special Emphasis on the Friars Hole Cave System, West Virginia. *Global karst Correlation*, Y. Daoxian and L. Zaihua, eds. Science Press. pgs 137-155.
86. Hess, J.W. and L.D. Slattery, 1998. Chapter 7 Extractive Industries Impact, *Karst Hydrogeology and Human Activities: impacts, consequences and implications*, D. Drew and H. Hotzl, eds. International Contributions to hydrogeology, Vol. 20, pgs 153-182.
87. Sebelo, S. and J.W. Hess, 1998. Geologic Characterization of Desert and Upper Desert Caves (NE Blue diamond Hill, Nevada, USA), *Acta Carsologica*, Vol XXVII/2:15, pp. 265-283.

88. Acheampong, S.Y. and J.W. Hess, 2000. Origin of the Shallow Groundwater System in Southern Voltaian Sedimentary Basin of Ghana: An Isotopic Approach, *Journal of Hydrology* 233, pgs 37-53.
89. Abu-Jaber, J.W. Hess and W. Howcroft, 2001. Chemical Erosion of the Lilburn Cave System, Kings Canyon National Park, California, *Ground Water*, 39:2, pgs 223-229.
90. Harmon, R.S., H.P. Schwarcz, M. Gascoyne, J.W. Hess, and D.C. Ford, 2003. Paleoclimate Information from Speleothems: The Present as a Guide to the Past: in *Studies of Cave Sediments – Physical and Chemical Records of Paleoclimate* (I. Saskowski and J. Mylroie, eds), Kluwer Academic/Plenum Publishers, New York: 199-224.

PUBLISHED ABSTRACTS AND OTHER PAPERS PRESENTED

1. Brucker, R.W., J.W. Hess and W.B. White. 1970. Role of Vertical Shafts in the Movement of Ground Water in Carbonate Aquifers. *Geol. Soc. Amer., Abst. with Programs*, 2:7, pp. 505-506.
2. Hess, J.W. 1970. The Sinking Creek System as an Example of a Confined Flow Carbonate Aquifer. The Central Appalachian Carbonate Hydrology Workshop, The Pennsylvania State University, p. 6.
3. Hess, J.W., N.W. Davis and F.L. Wefer. 1970. Hydrogeology of Burnsville Cove, Virginia, *Natl. Speleol. Soc. Bull.*, 32:4, p. 119.
4. Hess, J.W., J.R. Sweet and W.B. White. 1971. Candoluminescence of Cave Gypsum. *Natl. Speleol. Soc. Bull.*, 33:4, p. 145.
5. Hess, J.W., and W.B. White,. 1971. Cave Conduits as Components of Surface Stream Channels: Meander Bend Cutoffs. *Natl. Speleol. Soc. Bull.*, 33:4, p. 146.
6. Harmon, R.S., J.W. Hess and W.B. White. Chemical Characterization of Vadose Waters in the South Central Kentucky Karst. *Natl. Speleol. Soc.*, White Salmon, Washington, August, 1972.
7. Harmon, R.S., J.W. Hess and W.B. White. 1972. Chemical Characterization of Vadose Waters in the Central Kentucky Karst. *Natl. Speleol. Soc. Bull.*, 35:1, p. 27.
8. Davis, N.W., and J.W. Hess. 1974. Hydrogeology of the Drainage System, Burnsville Cove, Virginia. *Proceedings of the Fourth Conference on Karst Geology and Hydrology, West Virginia Geological and Economic Survey*, p. 93.
9. Hess, J.W., and W.B. White. 1974. Water Balance in the Karst Aquifer of Southcentral Kentucky. *EOS: Trans. AGU*, 55:4, p. 257.
10. Hess, J.W., and W.B. White. 1974. Ground-Water Geochemistry in the Central Kentucky Karst Aquifer. *Geol. Soc. Amer. Abst. with Programs*, 6:7, p. 792.
11. Hess, J.W., and R.O. Patt. 1976. Characterization of Nitrogen Sources Contaminating Shallow Ground Water in an Arid Basin, Las Vegas area, Nevada. *Third National Ground Water Quality Symposium Las Vegas, Nevada*, pp. 44-46.
12. Hess, J.W., and R.O. Patt. 1976. Potential Nitrate Sources in Shallow Ground Water, Las Vegas Valley, Nevada. *Geol. Soc. Amer. Abst. with Programs* 8:7, p. 915.
13. White, W.B., and J.W. Hess. 1977. Mineralogy of a Redwall Limestone Cave - Grand Canyon, Arizona. *National Speleological Society, Alpena, Michigan*.
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58. Hess, J.W., 1995. The Changing U.S. Political Climate. *Geo Soc Amer. Abst. with Program*,
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MISCELLANEOUS REPORTS

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5. Harmon, R.S., J.W. Hess and W.B. White, 1971, The Groundwater Geochemistry of the Central Kentucky Karst, Cave Research Foundation, Thirteenth Annual Report, pp. 8-9.
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17. Mifflin, M.D., A. Elzeftawy, S.W. Wheatcraft and J.W. Hess, 1982, Henderson, Nevada Rapid Infiltration Basin Siting and Monitoring Study, Prepared for City of Henderson, Nevada, Water Resources Center, Desert Research Institute, 90 pp.
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21. Russell, C.E., J.W. Hess and P. Patterson, 1988, Ground-Water Resource Evaluation of Sunset Park, Submitted to Clark County.
22. Chapman, J.B., N.L. Ingraham and J.W. Hess, 1990, Stable Isotope Study of Cave Waters in Carlsbad Cavern, New Mexico, Cave Research Foundation 1989 Annual Report.

RECENT INVITED TALKS

1. American University, March 1999. Liquid Gold – Water in the West
2. University of West Virginia, April 2001, Liquid Gold – Water in the West

PROFESSIONAL AND COMMUNITY SERVICE

Desert Research Institute

Faculty Senate 1984 - 1987, Secretary 1986 -1987

Member of numerous search committees for faculty, Vice Presidents and Presidents

Sabbatical Leave Committee

University of Nevada, Reno

Member of Advisory Board for the Hydrologic Sciences Program

Member of Advisory Board for the Center for Environmental Sciences and Engineering

University of Nevada, Las Vegas

Member of Advisory Board for the Water Resources Management Program

University and Community College System of Nevada

Member of Safety, Health, and Environmental Protection Advisory Committee

Co-Organizer of System-wide Earth Sciences Retreat, 1993, 1994, 1995 and 1998

Research Affairs Council, 1994 - 1996, 1998 - 1999

Academic Affairs Council, 1994 - 2000

Computer Planning and Policy Committee, 1995 - 1996

Point-of-Contact for UCCSN to YMSCO, USDOE, CST and NeTI, 1996 - 1999

Chair of Consortium on Dewatering Effects, 1996 - 1998

Geological Society of America

Committee on Committees, 1994

Committee on Nominations, 1998-1999

Hydrogeology Division:

Field Trip Chairman, 1984

Program Chairman, 1987

Nominating Committee, 1989 – 1991, 1997 - 2000

Symposium Co-Organizer, 1984 - The Nevada Test Site Geology, Geophysics and Hydrogeology

Symposium Co-Organizer, 1990 - Transient Responses to Global Change: The Geomorphic and Hydrologic Record

Representative to AIH, 1990 -1991

Cordilleran Section Representative, 1992 - 1993

Second Vice Chairman, 1993 - 1994

First Vice Chairman, 1994 - 1995

Chairman, 1995 - 1996

Past Chairman, 1996-1997

Long-Term Planning Committee, 1996-2001

International Arid Lands Consortium

Board of Directors, 1997 - 2000

Environmental Protection Agency

Filtration of Ground Water Samples for Metals Analysis Technical Committee, 1988

National Science Foundation

Proposal Reviewer for Hydrologic Sciences Program

Department of Energy

Proposal Reviewer

Army Research Office

Member of Board of Examiners - Terrestrial Sciences Program, 1995-97
Proposal Reviewer

Bureau of Land Management

Presented Workshop on Ground-Water Sampling, 1988

National Speleological Society

Chairman, Research Advisory Committee, 1978 - 1983

International Association of Hydrogeologists

Member of the Karst Commission
Member of 1998 Meeting Organizing Committee

IGCP 299 - Geology, Climate, Hydrology, and Karst Formation

Co-Chairman for North America 1990 - 1994

Cave Research Foundation

Member of Science Committee, 1974 - Present
Lilburn Project Science Coordinator, 1985 - Present

Karst Waters Institute

Member, Board of Directors, 1991 – 2000 and 2002 - Present
Vice-President, 1992 – 1993 and 2001 - 2002
Chairman of the Board, 1993 – 2000 and 2002 - Present

Powell Consortium (Seven Colorado River Basin State Water Resources Institutes)

Vice President 1994 - 1998
President, 1998 - 2000

National Institutes for Water Resources

Member of the Board, 1998 - 2000

Journal of Hydrology

Associate Editor, 1997 – 2000

Hydrogeology Journal

Associate Editor, 1999 – 2002

Butler Cave Conservation Society

Member, Board of Directors, 1968-1974

Aqua Vision

Member of Program Committee, 1988
Member Board of Trustees, 1995 - 1997
Treasurer, 1996 - 1997

Clark County School District

Member of Technology Resource Committee, 1988

Consulting

Nuclear Regulatory Commission (through Williams and Associates)

Review Committee Member for Purdue University, Earth & Atmospheric Sciences Department, 1998

Boy Scouts of America

Recipient of the Silver Beaver Award, 1988
Recipient of the Order of the Arrow Distinguished Service Award, 1998
Recipient of the Silver Antelope Award, 2000
Member of Several Boulder Dam Area Council Camp Development Committees
Area W4 Adviser, Order of the Arrow, 1994 - 1997
Western Region Chairman, Order of the Arrow, 1997 - 2000
Member of the National Order of the Arrow Committee, 1997 – Present
 Vice Chairman for Lodge Operation, 2000 – Present
Member of National Council, 1997 - Present
Boulder Dam Area Council, Member of the Board, 1997 - 2001
Western Region Board, 2000 – 2002
Arapahoe District, Longs Peak Council District Committee, 2002 – Present
Longs Peak Council Camping Committee Chair, 2003 - Present

Outside Las Vegas

Member of By-Laws and Project Committees that helped to create the organization, 1999-2000

National Park Service

Invited participant to the National Cave and Karst Research Institute Visioning Workshop, October 2003

TEACHING

Department of Geosciences/Water Resources management Program - UNLV (Helped to develop the M.S. program in Hydrogeology and M.S. program in Water Resources management)

GEY 706	Water Resources Seminar
GEY 709	Hydrologic Techniques
GEY 718	Water Resources Geochemistry
GEY 790	Special Topics in Water Resources (Isotope Hydrology)
GEY 790	Special Topics in Water Resources (Scientific Methods)
GEY 474/674	Hydrogeology

Hydrologic Sciences Program - UNR

GEOL 716	Low Temperature Aqueous Geochemistry
GEOL 702F	Isotope Hydrology
GEOL 702	Karst Hydrology

UCCSN

Hydrology Field Camp

GRADUATE STUDENTS (UNR and UNLV)

Have served on 35 Graduate Committees (6 Ph.D.) including committee chairman for 18 students (3 Ph.D.) and research advisor for one additional student.