

**John R. Jansen, P.G., R.Gp, Ph.D.**

*Surface and Bore-hole Geophysics  
Hydrogeology  
Ground-Water Exploration*

Dr. John Jansen is a registered Professional Geologist with over 43 years of experience in the field of surface and bore-hole geophysics, ground water hydrogeology concentrating on the efficient development and management of ground water resources, which includes the exploration and development, use, treatment, and protection of ground water based water supply systems. Dr. Jansen's specialty is the strategic identification of well sites in fracture controlled aquifers, and the testing and isolating vertical zones of aquifers with water quality problems, such as radium, barium, and nitrates. He has sited over one hundred high capacity water supply wells in the United States and Mexico. Additional areas of expertise include environmental investigations, well design and well rehabilitation. Dr. Jansen invented the Airburst™ well rehabilitation technology (US patent 5,579,845, International Patents pending). He has authored over 60 publications and technical presentations, and is on the Board of Directors for the Environmental and Engineering Geophysical Society.

**EDUCATION**

1981 BS GEOLOGY, University of Wisconsin: Milwaukee  
1983 MS GEOLOGICAL SCIENCES, University of Wisconsin: Milwaukee  
1995 Ph.D. GEOLOGICAL SCIENCES, University of Wisconsin: Milwaukee

**REGISTRATION/LICENSES**

11008 Professional Geologist PG No. 180604/State of Arizona  
1998 Professional Geologist PG No. 196-000935/State of Illinois  
1998 Professional Geologist PG No. 1899/State of Indiana  
1998 Professional Geologist PG No. 60373/State of Minnesota  
1994 Professional Geologist PG No. 27/State of Wisconsin  
1992 Professional Geologist PG No. 611/State of Wyoming  
1990 Registered Geophysicist No. 944 / State of California

**EXPERIENCE**

1998- Associate Geophysics--The HYDRODYNAMICS Group, Waukesha, WI  
1996-1998 Chief Geoscientist--Layne Geosciences, Inc., Mission Woods, KS  
1994-1996 Vice President--Ted Zorich & Associates, Inc., Lakewood, CO  
1992-1994 Director of Geosciences--Northern Environmental, Inc., Mequon, WI  
1988-1992 President--GeEx, West Bend, WI  
1985-1988 Chief Geophysicist--Layne Geosciences, Inc., Pewaukee, WI  
1981-1985 Exploration Geophysicist--Union Oil, Casper, WY  
1979-1981 Assistant Geologist--Layne Northwest Company, Wauwatosa, WI

## **PROFESSIONAL DEVELOPMENT AND TRAINING**

- 1998 Current RCRA and CERCLA 40-hour and 8-hour hazardous safety training.
- 1998 Board of Director: Environmental and Engineering Geophysical Society
- 1988 Vice President: Wisconsin Ground Water Association
- 1998 Steering Committee Member: SAGEEP
- 1996 Airburst™ Well Rehabilitation Technology: US Patent 5,579,845

## **PROFESSIONAL ASSOCIATIONS**

Environmental and Engineering Geophysical Society  
Wisconsin Ground Water Association  
American Water Works Association  
Colorado Ground Water Association  
National Ground Water Association  
Society of Exploration Geophysicists  
American Institute of Professional Geologists  
Geological Society of America  
American Geophysical Union

## **Ground Water Resources**

Dr. Jansen has conducted over 100 ground water studies in the United States and Mexico. These studies have included: 1) well siting investigations in glacial, alluvial, fractured rock, karst, and sandstone aquifers, 2) wellhead protection plans, 3) evaluations of the impact of ground water exploitation on surface water, 4) projections of future water levels in heavily developed regional aquifers, 5) mapping areas of saline ground water at depths of over 1,000 feet below ground surface, and 6) designing well rehabilitation projects to reduce nitrate, barium, and radium concentrations in deep wells. He has extensive experience in designing and practical and creative geophysical exploration programs to solve ground water problems using both surface and bore-hole methods. He has a broad background in aquifer testing and analysis, ground water modeling, water quality investigations, well design, and well rehabilitation.

## **Engineering and Environmental Geophysics**

Dr. Jansen has performed numerous geophysical projects for a variety of engineering and environmental applications. Many of these studies concentrated on identifying high capacity well sites in fracture controlled bedrock, glacial, alluvial, karst, and sandstone aquifers. Other applications include: 1) mapping plumes of saline or high TDS ground water, 2) seepage studies in dams, 3) determining the thickness and lateral extent of landfills, 4) identifying karst conduits or bedrock pinnacle structures, 5) finding voids or buried objects, and 6) bore-hole logging studies to identify zones of elevated radium, barium, and/or nitrate. He has conducted exploration programs targeting depths of investigations from a few feet to over 3,000 feet. His experience covers most of the common surface and bore-hole logging methods and includes several creative applications of less common methods, which include geothermal, spontaneous potential, misse a la masse, and bore-hole logging methods to directly measure hydraulic properties and water quality of distinct zones.