



Phil C. Sirles
Zonge Geosciences – Colorado
Managing Geophysicist
Lakewood, CO

PROFESSIONAL QUALIFICATIONS

Mr. Sirles' responsibilities for Zonge include many different aspects of geophysics, geology and program management. He has extensive experience working with applied geophysical methods to solve engineering, mining, environmental, and geologic problems. Beginning with his Masters in engineering-related geophysics, Mr. Sirles quickly became one of the nation's experts for near-surface geophysical studies pertaining to engineered structures. Mr. Sirles' work has included geophysical and UXO projects with Federal and state agencies (e.g., DoD, Corps, BOR, FHWA, and DOT's), as well as private firms to characterize engineering and environmental sites. His field experience and background in engineering and geology coupled with his experience using such geophysical imaging techniques as electromagnetic, ground penetrating radar, seismic reflection and refraction, electrical resistivity, self-potential, and magnetics, give him the capability to utilize the most appropriate method and technology to meet project needs. During more than 20 years as a professional, he has managed a group of a few geophysicists to Division management of over 20 professional staff, and acted as President of the international geophysical organization EEGS (Environmental and Engineering Geophysical Society). He has aided in the development of new business practices for UXO investigations including development and deployment of new sensor technologies (e.g., multi-channel GPR). Mr. Sirles has prepared over 200 project reports for local, state, Federal and private entities, and has 25 publications in a variety of geophysical topics.

EDUCATION

1986 M.S. Geophysics – Mackay School of Mines, University of Nevada-Reno, Nevada
1980 B.S., Geology, Fort Lewis College, Durango, Colorado

CONTINUING EDUCATION

OSHA 40-hour training (Refresher March 2004)
OSHA 20-hour Supervisory Training
24-hour Radiation Safety Training for Wireline Operations (Malek and Associates)
Shear-wave Exploration seismology (SEG)
Digital Signal Processing (CEC)
Seven Habits of Highly Effective People (Steven Covey)
Enlightened Leadership Training (Enlightened Leadership International)
Distinguished Toastmaster (Toastmasters International)

EXPERIENCE and BACKGROUND

2005 – Managing Geophysicist, Zonge Geosciences, Lakewood, CO

Mr. Sirles manages the Denver-based Zonge Divisional office. Zonge Geosciences – Colorado, a Division of Zonge Engineering and Research Organization (Zonge), offers top-quality geophysical consulting services to the mining, engineering, and environmental industries. The company provides training, proposal preparation, data acquisition and processing, and reporting. His primary effort is developing a base of clients in the Colorado/Front Range region, and corporate marketing. His experience with all methods of geophysics and management provides our clients with quality geophysical services. These services are being provided for private entities, state and Federal government agencies. The development of this new divisional office for Zonge involves: hiring of qualified geophysicists and technicians; creating and implementing a marketing strategy; writing full-scale commercial and government proposals; conducting geophysical investigations; and acting as Program Quality Control Manager. He has procured sole-sourced government contracts under DoD funding (e.g., USACE and AEC), and established large commercial contracts for long-term geophysical projects. As a Division Manager, Mr. Sirles is also responsible for the sustained growth of the company, including development of long-range growth strategies including business planning.

2001 – 2004 – Manager/Senior Geophysicist – Blackhawk GeoServices, Inc., Golden, CO

Mr. Sirles' responsibilities as Manager at Blackhawk GeoServices included meeting with clients, preparing marketing and technical presentations regarding the appropriate use of geophysics, writing proposals, designing field surveys, conducting field surveys, managing field crews, data processing, data interpretation, and report writing. Initially, Mr. Sirles Managed the *GeoSciences Division* that became a part of the Geophysical & UXO Services Division. As a result of the 'merger' the

division worked 239 marketing initiatives in one year. During FY03 he booked approximately over \$3M in UXO-related services and \$1.2M in engineering, environmental and groundwater geophysical investigation projects. His strength was in working with each of the division's three operational department managers to see that projects were executed successfully and profitably. Mr. Sirles was successful at marketing multiple service lines to the same customer. Additionally, Mr. Sirles was instrumental in obtaining sole-sourced contracts with the Federal Highway Administration (FHWA), as well as procuring and managing development of the web-based manual on the "*Application of Geophysics to Highway-Related Problems*" produced in text and web format. During his time at Blackhawk he procured about \$250,000 in highly visible transportation geophysical investigations, as well as a geophysical training program (short course) for FHWA/DOT Annual Regional Geotechnical Conferences.

1996 – 2001 – Senior Geophysicist – MicroGeophysics Corporation, Wheat Ridge, CO

Mr. Sirles' responsibilities as Sr. Geophysicist at MicroGeophysics Corp. included: managing field crews, data processing, data interpretation, and report and proposal writing for the company. He was also responsible for meeting with clients during UXO or geophysical investigations, preparing presentations regarding the appropriate use of geophysics, writing proposals, designing field surveys, conducting field surveys,. Mr. Sirles managed and marketed a new product line for MGC when they began performing UXO detection services east of Denver at the Former Lowry Bombing and Gunnery Range. Several surveys, covering several hundred acres each, were successfully completed under his management.

1986 – 1996 – Staff Geophysicist – Bureau of Reclamation, Denver Federal Center, CO

Mr. Sirles' responsibilities as project geophysicist at the Bureau of Reclamation (BOR) began with field data collection, data processing, and reporting for crosshole seismic investigations. Additional investigations involved projects using borehole seismic, surface seismic, electrical resistivity, GPR, EM, SP, VLF and borehole (nuclear) logging. After two years his responsibilities increased to management of subcontracts for geophysical surveys as a COTR (Contracting Officer Technical Rep.). Mr. Sirles developed a program for the Safety of Dams (SOD) program for the integration of geophysics into the field exploration projects and a training program for the BOR engineers to understand the use of geophysics. By the end of his nearly 11 years at the BOR, Mr. Sirles became the first non-engineer Team Leader for managing projects conducted for the BOR and EPA. This achievement was significant and allowed him to progress in his geophysics and management career.

PROFESSIONAL AFFILIATIONS

Environmental and Engineering Geophysical Society (EEGS)

- o EEGS President
- o EEGS Board of Directors

Association of Engineering Geologists (AEG)

National Association of Ordnance Contractors (NAOC)

Rocky Mountain Association of Environmental Professionals (RMAEP)

HONORS or AWARDS

1985 Sigma Xi Honorary Society – University of Nevada-Reno

1986, 1987, 1991, 1993, 1994, & 1995 – “Outstanding Achievement” or “Special Act” Awards, Bur. of Rec.

1993 Outstanding Toastmaster of the Year (Area F-2, Foothills Region, Colorado)

2000 & 2002 Achievement Awards – Outstanding Contributions to EEGS

PUBLICATIONS

Mr. Sirles has prepared over 150 project reports for local, state, Federal and private entities; and, has over 35 professional publications in a variety of geophysical topics. Mr. Sirles has been teaching the practical application of geophysics to engineers, geologists, and geotechnical engineers for over 15 years. He is accredited by the IACET (International Association for Continuing Education and Training) and has provided educational opportunities for PDH's and CEU's through such organizations as ASCE, ACSM, AEG, EEGS, and FHWA. In February 2006 a one-year project for the National Cooperative Highway Research Program will be published by Mr. Sirles; where the title is: "*Use of Geophysics for Transportation Projects – Topic 36-08*". Mr. Sirles has been contracted numerous times by the FHWA to present short courses and workshops on the "*Application of Geophysics to Highway-Related Problems*" (2002-2004).

MS THESIS TOPIC

"*Crosshole and Downhole Shear-waves Velocity and Attenuation measurements in the South Truckee Meadows, Nevada*" (1986)