

Richard A. Buckmaster  
Geophysicist  
USGS National Earthquake Information Center  
Box 25046, MS 966, Denver, CO 80225-0046  
303-273-8644 phone  
303-273-8450 fax  
rbuckmaster@usgs.gov

---

#### EDUCATION

---

*Arizona State University, Tempe, AZ*  
**M.A.S. in Geographic Information Systems** **2007**  
Thesis: "Modeling Groundwater and Contaminant Transport using VisualMODFLOW"

*Temple University, Philadelphia, PA*  
**B.S. in Geology** **2006**  
Senior Thesis: "Economic Evaluation of Gold Deposits in Boxelder Creek Formation, near Tomahawk, Lawrence County, South Dakota"

---

#### RELATED EMPLOYMENT

---

*United States Geological Survey, Golden, CO*  
**Geophysicist** **2008 – Present**  
Provide immediate response to worldwide seismic events. Seismic analysis of everyday and major events for the National Earthquake Information Center. Interview with the media. Data processing for all Alaska network solutions. Helping coordinate the 24x7 monitoring of USGS Volcano Observatories. Various research projects.

*AquAeTer, Inc., Centennial, CO*  
**Project Geologist** **2008**  
Managed environmental projects. Conducted extensive field work at hazardous waste facilities and municipal landfills. Soil and groundwater sampling, monitor well installation, remediation system pilot tests and installation. OSHA HAZWOPER trained.

*ATC Associates, Inc., Tempe, AZ*  
**Staff Geologist** **2006 – 2008**  
Conducted extensive field work at hazardous waste facilities and retail gasoline stations. Soil and groundwater sampling, monitor well installation, remediation system pilot tests and installation. OSHA HAZWOPER trained.

*Bureau of Land Management, Price, UT*  
**Geologic Interpreter** **2005**  
Provided guided tours of the Cleveland-Lloyd Dinosaur Quarry to tourists. Gave in-depth detailed talks on local geology and paleontology.

---

#### RESEARCH INTERESTS

---

- Alaskan subduction processes
- Crustal deformation from volcanic and tectonic processes
- Remote sensing in the monitoring of volcanic and seismic activity
- Volcanic hazard mitigation

---

## RESEARCH EXPERIENCE

---

*United States Geological Survey, Golden, CO*

**Geophysicist**

**2008 – Present**

Performs office data analysis and map creation using ArcGIS. Creates maps for a worldwide seismicity atlas. Implementing online seismic data portal for GIS information and download. Real-time mapping of earthquake felt information using social networking (Twitter). Satellite remote sensing of ground deformation near volcanoes and seismic areas. Various other projects.

---

## TEACHING EXPERIENCE

---

*Temple University, Philadelphia, PA*

**Geology Tutor**

**2004 – 2006**

Provided study help for introductory and mid-level geology students. Tutored students in Physical Geology, Environmental Resources, Geochemistry, Igneous & Metamorphic Petrology, and assorted GIS courses.

*Bureau of Land Management, Price, UT*

**Geologic Interpreter**

**2005**

Provided guided tours of the Cleveland-Lloyd Dinosaur Quarry to tourists. Gave in-depth detailed talks on local geology and paleontology.

---

## FIELD EXPERIENCE

---

*AquaAeTer, Inc., Centennial, CO*

**Project Geologist**

**2008**

Conducted extensive field work at hazardous waste facilities and municipal landfills. Soil and groundwater sampling, monitor well installation, remediation system pilot tests and installation. Sites in Colorado, Kansas, Nebraska, Nevada, New Mexico, Texas, and Wyoming.

*ATC Associates, Inc., Tempe, AZ*

**Staff Geologist**

**2006-2008**

Conducted extensive field work at hazardous waste facilities and retail gasoline stations. Soil and groundwater sampling, monitor well installation, remediation system pilot tests and installation. Sites in Arizona, California, Georgia, Oregon, and Tennessee.

*Temple University, Philadelphia, PA*

*South Dakota School of Mines & Technology, Rapid City, SD*

**Undergraduate Work**

**2002-2006**

Various coursework fieldtrips. Structural, sedimentology, stratigraphy, petrology research topics. Sites in New Jersey, New York, North Dakota, Pennsylvania, South Dakota, and Wyoming.

---

## PUBLICATIONS AND PAPERS

---

- "Mapping the Projected Potential Distribution of the Zebra Mussel, *Dreissena polymorpha*, and Quagga Mussel, *Dreissena bugensis*, in the Delaware Valley (Pennsylvania and New Jersey) from the Contaminated Dutch Springs Reservoir Quarry - Bethlehem, PA"  
Undergraduate coursework paper (unpublished), Temple University, Philadelphia, PA 2003
- "Reconsidering Nuclear Power: Advances in Waste Management"  
Undergraduate coursework paper (unpublished), Temple University, Philadelphia, PA 2005
- "Yucca Mountain: Key to Nuclear Waste Storage or the Lurking Doom of Humanity?"  
Undergraduate coursework paper (unpublished), Temple University, Philadelphia, PA 2005
- "Metamorphic Core Complexes: A Review"  
Undergraduate coursework paper (unpublished), Temple University, Philadelphia, PA 2006
- "The Deadwood Formation: Lithographic Description and Stratigraphic Correlation with Precambrian Units"  
Undergraduate coursework paper (unpublished), South Dakota School of Mines and Technology, Rapid City, SD 2006
- "Economic Evaluation of Gold Deposits in Boxelder Creek Formation, near Tomahawk, Lawrence County, South Dakota"  
Undergraduate thesis (unpublished), South Dakota School of Mines and Technology, Rapid City, SD 2006
- "Elkhorn Peak Dome: A Study of Geologic Evolution"  
Undergraduate coursework paper (unpublished), South Dakota School of Mines and Technology, Rapid City, SD 2006
- "Geology of Reva Gap, Harding County, South Dakota"  
Undergraduate coursework paper (unpublished), South Dakota School of Mines and Technology, Rapid City, SD 2006
- "Structural Geology and Development of Crow Peak near Spearfish, Lawrence County, South Dakota"  
Undergraduate coursework paper (unpublished), South Dakota School of Mines and Technology, Rapid City, SD 2006
- "Modeling Groundwater and Contaminant Transport using VisualMODFLOW"  
Graduate thesis (unpublished), Arizona State University, Tempe, AZ 2007

---

## MEMBERSHIPS

---

- American Geophysical Union (AGU)
- Geological Society of America (GSA)
- International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI)

---

## PROFESSIONAL REFERENCES

---

- Bruce Presgrave (presgrave@usgs.gov)
- Dr. Stuart Sipkin (sipkin@usgs.gov)
- Dr. Harley Benz (benz@usgs.gov)
- Dr. Paul Earle (pearle@usgs.gov)