

Michael P. Sullivan

915 South 28th Street, Camp Hill, Pennsylvania 17011, 717-683-5449, Msullivan222@gmail.com

WORK EXPERIENCE

Course Instructor

September 2009 - Present

American Association of Petroleum Geologists

Tulsa, Oklahoma

- Instructor of multiple online courses for the AAPG Education Department.
- Presenter of e-symposium regarding the technological advancement and application of geothermal energy within oil and gas wells.

Project Geoscientist

July 2007 - Present

Groundwater Services International

Mechanicsburg, Pennsylvania

- Supporting team in structural and geochemical analyses for subsurface investigations.
- Supervising the installation, development and testing of municipal supply wells.
- Implemented the department of borehole logging and shallow geophysics.
- Provided structural and wireline data analysis for exploratory oil and gas wells in the Mississippian Plateau, Kentucky.

Teaching Assistant

January 2006 - June 2007

Ohio University

Athens, Ohio

- Conducted lectures and laboratory exercises for assigned undergraduate courses.
- Instructed field and quantitative methods for geochemical investigations.

Geotechnical Specialist, Intern

September 2004 - August 2006

Advantage Engineering

Mechanicsburg, Pennsylvania

- Supervised drilling operations for environmental investigations.
- Performed geotechnical inspections including field and laboratory assessments.

SPECIALIZED SKILLS

Analytical:

- Wireline interpretation for the identification of lithology and depositional environments.
- Large scale seismic, gravity and EM data interpretation.
- Packer testing and reservoir pressure investigations.
- Log correlations and cross sectional drafting.
- Isopach and subsurface map drafting.

Field/Laboratory:

- Mount Sopris wireline tools and operating equipment.
- Thin section analysis and mineral identification.
- Permeability and porosity assessments.
- Spectrometry (Quadruple Mass) and XRD operation.
- Scanning Electron Microscope operation.
- Soil analyses (Geotechnical and Geochemical).

Computer:

- Wireline Software: Log Plot (Rockware).
- Geospatial Software: AutoCAD, Arc-GIS, Surfer.
- Fluid Modeling Software: AQUI-Solve, Pumptest.
- Geochemical Modeling Software: MOD-Flow/MT3D (3D Porous Media and Fracture Simulations), PHREEQC-I.

EDUCATION

Master of Science, Geology *June 2008*

- Ohio University, Athens, Ohio
- **Graduate Thesis:** *Water Balance of the San Simon River Groundwater Basin: Implications for the Berlin Hydrothermal Reservoir, El Salvador.*
 - Performed hydrogeologic and geophysical assessments for a reservoir characterization of the Berlin- Tecapa volcanic complex.
 - Analyzed CO₂, Hg, and Rn soil-vapor outputs of fumarole areas to identify suspected fault zones and further develop structural components.
 - Quantified reservoir storage via well pressures and temporal chemical variations of extracted geothermal fluid.

Bachelor of Science, Geology (1) and Earth Science (2) *May 2005*

- Bloomsburg State University of Pennsylvania, Bloomsburg, Pennsylvania
- **Undergraduate Research:** *Geochemical Analysis of Acid Mine Drainage and Remediation Effectiveness of the Roaring Creek Watershed, Columbia County, PA..*
 - Characterized geochemistry of contaminated zones within study area.
 - Evaluated the effectiveness of installed carbonate treatment systems.
- **Undergraduate Research:** *Paleo-ecological Investigation of the Llewellyn Formation in the Bear Valley Strip-Mine, Shamokin, PA.*
 - Reconstructed paleo-environment of exposed base clay.
 - Established paleo-flow directions through the assessment of fossil orientations and stereographic corrections.

RELEVANT COURSEWORK

Sedimentation and Stratigraphy	Structural Geology
Petroleum Geology and Subsurface Investigatory Methods	Mineralogy
Petrology	Optics
Applied Geophysics	Advanced Hydrogeology
Modeling and Geo-statistics	Paleontology
Geochemistry (Aqueous, Particle Transport, Hydrothermal, Physical)	
Thermal Profiling in Unconventional Oil and Gas Reservoirs (Short Course)	

ACTIVE MEMBERSHIPS

American Association of Petroleum Geologists
American Geophysical Union
Harrisburg Area Geological Society of Pennsylvania (2009-2010 Chairman)
Pennsylvania Council of Professional Geologists

PUBLICATIONS / PRESENTATIONS

Hertzog, J. and Sullivan, M.P., 2005. Investigation of Kline's Creek of the Roaring Creek Watershed. Columbia Co., PA. (Poster) **Geological Society of America**. Abstracts and Programs, 37:1.

Lopez, D.L., Matus, A., Castro, M., Magana, M.I., Sullivan, M.P. Implications of Temporal Changes in Solute Concentrations for the Mass Balance of the Berlin Geothermal Reservoir. (Poster) **American Geophysical Union**. Joint Assembly, 2008. Fort Lauderdale, FL.

Sullivan, M.P., Water Balance of the San Simon Groundwater Basin, El Salvador, Central America (Presentation).

- 1: **Rotary Club International**. Chapter Assembly. Jan 23, 2008 Mechanicsburg, PA.
- 2: **American Geophysical Union**. Joint Assembly. May 30, 2008. Fort Lauderdale, FL.
- 3: **United States Geological Survey**. Keynote Speaker. July 7, 2008. Middletown, PA
- 4: **Harrisburg Area Geological Society**. Chapter Meeting. May 21, 2009. Harrisburg, PA

Sullivan, M.P. and Lopez, D.L., Geothermal Applications to Oil and Gas. **AAPG E-Symposium Series**. Presented August 20th, 2009. 11am (Eastern)