

## Pride Tamasang Abongwa

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and Engineering Sciences (MPES),  
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### Education

Ph.D., Oklahoma State University, Stillwater, Geology, August 2014.

Dissertation: "Assessing the Temporal Evolution of Dissolved Inorganic Carbon and Stable Carbon Isotopes in Surface Waters"

M.Sc., IHE Institute of Water Education, Delft, The Netherlands, Hydrology, April 2004.

Thesis: "Predicting Transport of *Escherichia Coli* in Saturated Porous Media"

B.Sc. (Hons.), University of Buea, Cameroon, Geology, 1999.

Project: "The Geology of Ebondji and Environs, Southwestern Cameroon"

### 1. Publications (\*Corresponding Author)

- **\*Abongwa, P.**, Den, W., Teague, A., 2022. Dual Isotopic (O & N) Approach in the Assessment of NO<sub>3</sub><sup>-</sup> Pollution in an Urban River. *Water, Air, & Soil Pollution*, 233(7), 1-14.
- **\*Abongwa, P. T.**, Den, W., and Teague, A., 2022. Chemical and Carbon Isotopic Characterization of a Karst-Dominated Urbanized Watershed: Case of the Upper San Antonio River. *Archives of Environmental Contamination and Toxicology*, 1-16.
- **\*Abongwa, P.**, Den, W. (2021). Evolution of a Deep Fluid in a Surficial Environment Using Stable Carbon and Sulfur Isotopes: Case of the Transitional Zone of the Edwards Aquifer in South Central Texas. *Water, Air, & Soil Pollution*, 232(5), 1-19.
- **\*Abongwa, P.T.**, Atekwana, E. A., Puckette, J. O. (2020). Hydrogeochemical Investigation of Metal Evolution in Circum-Neutral Mine Discharge. *Water, Air, & Soil Pollution*, 231(4), 1-15.
- **\*Abongwa, P.**, Puckette, J., Atekwana, E. and Halihan, T. 2018. Aquifer Geology and Water Chemistry: Case of selected surface water and groundwater in Oklahoma, United States of America. *Shale Shaker - Oklahoma City Geological Society Issue #2 April 2018.*,
- **\*Abongwa, P.** and Atekwana, E., 2018. Investigating the effects of dilution by precipitation on dissolved inorganic carbon and stable isotope evolution in surface waters. *Environmental Science and Pollution Research* **25**, 19941-19952
- **\*Abongwa, P.**, Atekwana, E. and Puckette, J., 2016. Dissolved inorganic carbon and stable carbon isotopic evolution of neutral mine drainage interacting with atmospheric CO<sub>2(g)</sub>. *Science of the Total Environment* **546**, 57-66.
- **\*Abongwa, P.**, Atekwana, E., 2015. Controls on the chemical and isotopic composition of carbonate springs during evolution to saturation with respect to calcite. *Chemical Geology* 404, 136-149.
- **\*Abongwa, P.**, Atekwana, E., 2013. Assessing the temporal evolution of dissolved inorganic carbon in waters exposed to atmospheric CO<sub>2(g)</sub>: A laboratory Approach. *Journal of Hydrology* 505, 250-265.

### 2. Conference Abstracts & Presentations (\*Students)

- **\*Guerra, D., \*Martinez, A.,** Abongwa, P., Den, W.: Surface Water and CO<sub>2</sub> Emissions: Diel Cycling of Carbon in the San Antonio River. 17<sup>th</sup> Annual Texas A&M University System Pathways Student Research Symposium, March 3-4, 2022, College Station, TX.
- Abongwa, P., Akondi, R., & Den, W.: *Isotopic and microbial-biogeochemical controls on the cycling of metals and metalloids in low-temperature aqueous systems. Geological Society of America (GSA) Annual Meeting, October 10-13, 2021, Portland, Oregon, USA.*
- Abongwa, P., Den, W., **\*Gonzalez, S.:** *Chemical and Isotopic Characterization of a Karst-Dominated Watershed. Goldschmidt Virtual 2020, June 21-26, 2020, Hawaii.*
- Abongwa, P., Den, W., **\*Gonzalez, S.:** Biogeochemical Investigations of Sulfate Producing Hot Springs Emanating from a Limestone Aquifer and an Oil Producing Shale Formation. American Geophysical Union (AGU) Annual Meeting, December 9-13, 2019, San Francisco, CA.
- **\*Gonzalez, S.,** Abongwa, P., Den, W.: Natural and Anthropogenic Sources of Pollution to an Urban River: Case of the Edwards Aquifer – San Antonio River Interaction. 16<sup>th</sup> Annual Texas A&M University System-wide Symposium, November 6-7, 2019, Laredo, TX.
- Abongwa, P., **\*Brettmann, A.,** Carson, R. Geochemical and mineralogical investigation of shale-hosted Miocene concretions. 70<sup>th</sup> joint Rocky Mountain and Cordilleran Geological Society of America Section meeting, May 15-17, 2018, Flagstaff, AZ.
- Abongwa, P., Atekwana, E., Puckette, J. Kinetic and Isotopic equilibration of a neutral mine discharge with atmospheric CO<sub>2</sub>: Case study of a gold mine discharge at the Cripple Creek Mining District, CO, USA. Abstracts with Program, Geological Society of America annual meeting, October 22-25, 2017, Seattle, WA.
- Abongwa, P., Atekwana, E., Puckette, J. Dissolved inorganic carbon and stable carbon isotopic evolution of neutral mine drainage from a gold mine. 34<sup>th</sup> Annual National Association of Black Geoscientists Meeting, September 9-12, 2015, Houston, Texas.
- **Roethe, Jessica\*,** Atekwana, Eliot and Abongwa, Pride. A comparative assessment of the water quality of Claremore Lake, Oklahoma: Population growth and its effect on water quality. 49<sup>th</sup> Annual Geological Society of America South-Central Section Meeting, March 19-20, 2015, Stillwater, Oklahoma.
- **Aaron Prock\*,** Pride Abongwa and others\*. Geochemical investigation of drainage ponds for the Cripple Creek Mining district at the Carlton Tunnel exit near Victor, Colorado. 49<sup>th</sup> Annual Geological Society of America South-Central Section Meeting, March 19-20, 2015, Stillwater, Oklahoma.
- Abongwa, P., Geyer, C., Puckette, J. Investigating the effectiveness of mineral precipitate as a tool in the removal of heavy metals from mine waters. American Geophysical Union annual meeting, December 15-19, 2014, San Francisco, California.
- Abongwa, P., Atekwana, E. Investigating the effects of precipitation on carbon evolution in surface water that interacts with atmospheric CO<sub>2(g)</sub>. Significance of stable carbon isotope ratios. Abstracts with Program, Geological Society of America annual meeting, October 27-30, 2013, Denver, Colorado.
- Abongwa, P., Puckette, J., Halihan, T., Atekwana, E. Water chemistry of selected springs, lakes, wells and creeks in central, south-central and northeastern Oklahoma. 2012 Oklahoma Water Resources Research Institute Symposium, November 13-14, 2012.
- Abongwa, P., Atekwana, E. Investigating potential loss of carbon dioxide from karst springs: constraints from dissolved inorganic carbon (DIC) and stable carbon isotope ratios of DIC ( $\delta^{13}\text{C}_{\text{DIC}}$ ). Abstracts with Program, Geological Society of America annual meeting, November 4-7, 2012, Charlotte, North Carolina.
- Abongwa, P., Atekwana, E. Assessing temporal loss of CO<sub>2</sub> from natural waters using dissolved

inorganic carbon concentrations and stable carbon isotopes: Abstracts with Program, Geological Society of America annual meeting, Minneapolis, Minnesota, October 9-12, 2011.

### 3a. Awards and Scholarships

2021	\$10000 Texas A&M San Antonio Research Council Grant 2021 \$5000 Texas A&M San Antonio College of Arts Sciences (CoAS) Summer 2021 Faculty Fellowship Grant
2020	\$10000 Texas A&M San Antonio Research Council Grant 2020 \$3000 Texas A&M San Antonio Summer Research Grant 2020
2019	\$3000 Texas A&M San Antonio Summer Research Grant 2020
2012	Excellence Award (Top award), National Association of Black Geoscientists.
2011	Graduate Alumni Fellowship, Oklahoma State University (competitive).
2000	Netherlands Fellowship Program (NFP). Top 3 applicants from Cameroon.

### 3b. Funding Proposal in Review:

- (i) **National Science Foundation (NSF) (\$200,000)**  
“CRZ: Microbial, geochemical and stable isotope controls on organometal(loid)s cycling in Karst Watershed” submitted (April 2022) by **Dr. Pride Abongwa (PI)** and Dr. Davida Smyth (Co-PI).
  
- (ii) **Federal Emergency Management Agency (FEMA) Grand via Texas Division of Emergency Management (TDEM) (\$750,000)**  
“DR4485 - Mitigation and protective planning, practices, training, and tools to protect drinking water quality from HAZMAT contamination during emergency firefighting response in Texas’ karst watersheds and aquifers” submitted (June 2022) by **Dr. Pride Abongwa (PI)** and Dr. Walter Den (Co-PI).

### 4. Professional Experience

August 2019-Present	Assistant Professor of Geology, Texas A&M University San Antonio, TX.
Aug. 2018-July 2019	Lecturer of Geology, Texas A&M University San Antonio, San Antonio, TX.
Aug. 2017-Aug. 2018	Visiting Assistant Professor of Geology, Whitman College, Walla Walla, WA.
Jan. 2015-Aug. 2017	Visiting Assistant Professor of Geology/Geochemistry, Boone Pickens School of Geology, Oklahoma State University.
Jan. 2011 – Aug. 2014	Ph.D. candidate, Boone Pickens School of Geology, Oklahoma State University.
Jan. 2011 – July 2014	Teaching Assistant, Oklahoma State University, Stillwater, OK. Introduction to Geology; Hydrogeology (instruct on problem solving); Advanced Well Log Analyses (instruct on problem solving); Geochemistry.
Summer 2014	Geology Field Camp (Canon City, CO), Oklahoma State University: (Mapping and formation interpretation, cross-section and formation correlation; prepared maps used for field exercises, Drive students to field daily, Drive students to Canon City, CO and back to Stillwater, OK).
Summer 2012	Intern, Oil and Gas Division, EERC, Grand Forks, ND, USA (Experimentation and modeling on CO <sub>2</sub> -Enhanced Oil Recovery [EOR] operations; baseline hydro-geochemical determination for monitoring purposes; groundwater analyses and interpretation).
Summer 2013	Intern, Oil and Gas Division, EERC, Grand Forks, ND, USA. (Experimentation on CO <sub>2</sub> -saline water-reservoir rock interaction during CO <sub>2</sub> -EOR operations; effect on

Summer 2011 rock porosity and petrophysical description of the Bakken Formation)  
 Geology Field Camp (Canon City, CO), Oklahoma State University: (Gamma-ray collection and interpretation; mapping, cross-section and formation correlation; prepared maps used for field exercises, Drive students to Canon City, CO and back to Stillwater, OK).

**5. Service**

**5a. University-wide**

Summer/Fall 2022 Search Committee Member – Associate Vice Provost of Student Success and Retention  
 2020-Present Faculty Senate Rep. for the department of Mathematical, Physical, and Engineering Sciences.  
 2021-Present Member of the University Core Curriculum Committee

**5b. College**

2021 - Present Member of the College of Arts and Sciences Curriculum Committee

**5b. Departmental**

Spring 2022 Search Committee member for adjunct faculty hire in Water Sciences  
 Spring/summer 2021 Search Committee Chair for the hiring of a Post-Doc in the Physical Sciences Division.  
 2019/2020 Search Committee Chair for the hiring of Adjuncts in the Physical Sciences Student research Symposium, Oklahoma State University, Stillwater.  
 2012 - 2016 Geology departmental liaison to the Graduate Professional and Student Government association, Oklahoma State University, Stillwater.

**5c. Professional**

2019 - Present NSF Grants Reviewer (Hydrology, Geochemistry, and Instrumentation)  
 2017 - Present Peer-Reviewer: Journal of Hydrology; Science of the Total Environment; Environmental Science and Pollution Research  
 Nov. 2011 Organized annual meeting of the Oklahoma City Geological Society, Tulsa Geological Society and Oklahoma State University Geological Society (called Triple Junction Function) held at Oklahoma State University, Stillwater, OK.  
 Oct. 2011 Member, Geological Society of America.  
 Apr. 2011 Member, American Association of Petroleum Geologists (AAPG).  
 Apr. 2011 Oklahoma State University Geological Society (President: 2011-2012).  
 Jan. 2011 International Association of Geochemists.  
 Jan. 2011 National Association of Black Geoscientists (NABG)