

Pride Tamasang Abongwa

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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., International Higher Institute of Water Education (IHE), 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”

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 ₂ -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 ₂ -saline water-reservoir rock interaction during CO ₂ -EOR operations; effect on rock porosity and petrophysical description of the Bakken Formation)
Summer 2011	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).

Guest Lectures

Fall 2023	Trinity University, San Antonio: Geoscience seminar series –Characterization of a Karst Aquifer.
Spring 2024	St. Mary University, San Antonio: Sustainability Studies Speaker Series - Renewable Energy.

Research

Publications (*Corresponding Author)

- ***Abongwa, P.**, Carson, R., Den, W. (2024, **in review**): Geochemical and Mineralogical Investigation in the Source-Determination of Shale-hosted Miocene Concretions of the Astoria Formation, Northwestern Oregon Coast, USA. *Geosciences Journal*.
- ***Abongwa, P.**, Den, W., Teague, A., 2022. Dual Isotopic (O & N) Approach in the Assessment of NO₃⁻ 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_{2(g)}. *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_{2(g)}: A laboratory Approach. *Journal of Hydrology* 505, 250-265.

Conference Abstracts & Presentations (*Students)

- ***Otabil, B.**, ***Ofojioha, O.**, Abongwa, P., Smyth, D., Luevano, G.: Biogeochemical and Stable Isotopic Characterization of the Edwards Aquifer, South Central Texas, USA. The Geochemical Society, Goldschmidt, August 19-23, 2024, Chicago, IL, USA.
- ***Guerra, D.**, ***Martinez, A.**, Abongwa, P., Den, W.: Surface Water and CO₂ Emissions: Diel Cycling of Carbon in the San Antonio River. 17th 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. 16th 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. 70th 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 CO₂: 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. 34th 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. 49th 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. 49th 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_{2(g)}. 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 CO₂ 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.

Fellowships, Awards and Scholarships

2023	United States Department of Agriculture (USDA) E. Kika De La Garza Science Fellowship 2023.
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.

Funding:

USDA-NIFA-HSI-009755: \$1,000,000 (Proposal #2024-0385: award-processing phase)
Title: Comprehensive Experiential Learnings to Promote Climate Resilient Agriculture for Underrepresented Minority Students, by **Dr. Pride Abongwa (PI)**; Dr. M. Sridhar (Florida International University [FIU]), and Dr. Liu X. (Texas State University, San Marcos).

TEACHING & CERTIFICATION

ACUE Certified: Effective Teaching Practices (2023).

Courses Taught

Texas A&M San Antonio

GEOL 1301 Earth Sciences I

GEOL 1302 Earth Sciences II

WATR3331 Hydrology

WATR4330 Water Management and Field Investigation

WATR5350 Groundwater Management and Field Investigation,

Whitman College, Walla Walla, WA

GEOL 125 Environmental Geology

GEOL 460 Geochemistry

Oklahoma State University, Stillwater, OK

GEOL 1014 Geology and Human Affairs

GEOL 1305 Environmental Geochemistry

GEOL 2013 Geology of National Parks

GEOL 4403 Physical Hydrology

Students mentored:

Undergraduate

1. Alisha Martinez: 2021-2024
2. Destiny Guerra: 2020-2023
3. Samantha Gonzalez: 2019-2020

Graduate Students:

Thesis Committee Member:

1. Pablo Vicaria: “Synthetic produced water treatment by directional solvent extraction in a semi-continuous system. – Spring 2024
2. Travis Walla: “Is onsite evaporation a feasible solution for produced water management for oil and gas development.” – Spring 2024
3. Austin Mcbrady: -“Targeting macrophytes: Increased water quality through optimized vegetation considerations for constructed wetlands.” – Fall 2023
4. Jillin Sotomayor-Requena: “Dynamic of chemical and microbial evolution in pipe circulated with natural water.” – Spring 2022

Chair:

5. John Hamilton: “Trashed: A review of anthropogenic litter in an urban watershed.”- Fall 2023
6. Benjamin Arrelano: “Produced Water.” – Fall 2023
7. Benny Otabil: “Groundwater-surface water interaction in a karst system.” – Fall 2023-Spring 2025
8. Onyeakachi Ofogioha: “Column experiments to determine fluid transport in a karst system.” – Spring 2024 –Fall 2025

SERVICE**University-wide**

Spring 2024 – Present	INSPIRE @ESPADA: Increasing Student Participation in Research Experiences
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

College

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

Summer 2024	Search Committee Chair for the hiring of Geology Adjunct
Fall 2023	Search Committee member for a Tenure-Track Faculty in Physical Chemistry
Spring 2022	Search Committee member for adjunct faculty hire in Water Sciences
Spring 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)