Congratulations! 2014 AIPG Student Scholarship Winners!

The AIPG Executive Committee is pleased to announce the awardees for the 2014 Student Scholarships. AIPG has awarded eleven scholarships this year. The recipients are *Dana Walters*, Clemson University, Clemson, South Carolina; *Kara Mjolhus,* West Texas A&M, Canyon, Texas; *Zakia Kiminta*, Georgia State University, Atlanta, Georgia; *Firdaus Ridzuan*, Iowa State University, Ames, Iowa; *Colin Sturrock*, University of Texas at Austin, Austin, Texas; *Nicolas Spano*, University of Minnesota-Duluth, Duluth, Minnesota; *Ryan Phillip,* West Georgia University; Carrollton, Georgia; *Alexandra Price*, Colorado Mesa University, Grand Junction, Colorado; *Ashley Pales*, Northern Illinois University, DeKalb, Illinois; *Jessica Badgeley*, Colorado College, Colorado Springs, Colorado; and *Carly Siko*, Michigan Tech University, Houghton, Michigan.

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Dana Walters, SA-4799

Geologist: The Misunderstood Profession

"You study rocks?" is usually the response I get when I tell my peers that I want to work as a geologist. The general public seems to have adopted the view that geologists do nothing more than collect rocks and stare at the ground. So yes, I would like to be a geologist; I would like to study rocks and the earth, but I would also like to do something great with those studies. In high school, when I knew it was the career I'd pursue, I adopted the phrase "Saving the world one rock at a time!" as the answer to my inquisitive peers. By studying geology, I want to make a difference in the world and prove that geologists are more powerful than the public expects.

In my three years of studying geology at Clemson University I have been repeatedly reassured that being a geologist will allow me to follow through on my slogan and apply my love for geology in meaningful ways. I have recently become involved with two research projects on campus. Each project has applications beneficial to the general public and allows me to work on a team of passionate geologists and students. You could argue that I spend quite a bit of time staring at rocks and the ground while working on these projects. However, it's the applications that make the work of a geologist meaningful. For example, my research concerning the carbon dioxide release from the soil will be applied to climate change of this area. Learning about the sources of carbon dioxide and other greenhouse gases will allow us to be more affective in our work against global climate change. The applications of the findings from this project will have great effects on the world. This is true for almost all geology research projects. Geologists have a great impact on the world we live in, though most of the population fails to realize it.

To me, becoming a geologist means having a career that is meaningful and affects the world in a positive way, even from behind the scenes. It is a career with a strong potential to make a difference in the world and better the living conditions for future generations. Saving the world one rock at a time may be an exaggeration, but it's an idea I'll carry with me throughout my career.

Kara Mjolhus, SA-4742

During my young life, I can remember several times when my teachers would ask us things like what did we want to be when we grow up? As a child I never understood why the other children would laugh at me when I would answer. I would state that I wanted to be a clown or an Indian (not realizing that there was a politically correct term of course). As a teenager, I was expected to contemplate and compile well worded essays on the same topic. My answers were somewhat the same but varied with whatever topic I was interested in from wanting to be a Marine, a teacher, an artist, a mad scientist, to answering in all honesty that I really had no clue, can we get paid to just travel?

Some of my favorite memories of my youth were camping with my family. As soon as spring arrived, I could not be still because I knew we would soon be on a new adventure. Reflecting on it now, I realize how much that I am my father's daughter. We would be off before the sunrise much to my mother and sister's dismay and I would be elated. After get-

ting our camp set, I would be off to see the sights and explore my surroundings. It never crossed my mind to question the what's, the why's and the how's of the things I was seeing. How do mountains form? What kind of rock is this? It never made a difference what kind it was, all I knew is that it was going in my pocket.

Fast forwarding on through my life, I still did not know that I wanted to be a Geologist. I worked haz-mat for a major semiconductor manufacturing company. I was a personal assistant/artist for an eccentric millionaire, I even owned a national marketing firm at one point in my life. It wasn't until I was in university, taking a freshman geology course when I had that "light bulb moment." Do you know that moment? When all the doubt, confusion and fear of the question, "What am I doing" is replaced with curiosity, desire and respect? You liked going to class. You sought out extra information on a subject for fun. You knew the answer to the question. You are going to be a Geologist! I compare it to falling in love: I was smiling, I was excited, I was forgetting to eat, and I was a little bit obsessive about learning more.

We are the stewards and caretakers of Earth. I am in awe of the Earth's processes. I want to follow in the paths of exploration for better understanding of Earth's systems and beyond. I believe that within any science, you need a good understanding of geology because frankly, it is our beginning. My interests lie especially in geomorphology, geochemistry, mineralogy and mining. In retrospect, it is of no surprise that Geology is my chosen field. I have always been one of the Earth; from playing in the dirt, collecting rocks, climbing etc. I don't know a stranger and I adore making people smile, especially when I teach them something that they didn't even realize they wanted to know. I see the beauty in the landscape, and I respect the force that shapes us. I'm extremely passionate about geology, and I feel that within its science; I am home.

Zakia Kiminta, SA-5203

I never thought I'd be happy. I also never thought I'd be writing this much once I switched my major to a science, either. Yet, here I am scribbling my little heart away. Or at least, writing this equates to as much for me. I love Geology. I do not, and I never will, mean that lightly. I can say with confidence that I have never been this thrilled about academia. I used to think my future would be in the hands of some artform like film, or photography. Yet, every film class I would register for just felt like another burden. So, here I am obsessing over glacier migration, igneous petrology and carbonate facies instead. Oh, I do love carbonate facies.

I will admit that I'm very new at this whole Geology thing. I was a film major for about a year, after all. I used to fancy myself the future executive producer of a children's programming network. I was so ready to commit myself to this. I only took Geology to fulfill a science requirement, but the moment I stepped into that lecture hall, I felt competent. I didn't feel small like I had in all of my film classes. I felt intelligent, comfortable, and most importantly, I felt capable. It took me a while to actually come to the conclusion, but Geology is definitely the smartest decision I've ever made.

Before I started taking actual geo-classes, I saw Geology as limited to rocks, and plate tectonics. This, of course, is wrong. For me, understanding the fact that processes happening here on Earth are happening and have happened similarly on other plants is the most exciting aspect of Geology. Even if we are alone as a species in this vast universe, it is known without a doubt, that many of the processes taking place here on Earth are ubiquitous across not just our solar system, but our galaxy, and our universe. And to comprehend the physics of these processes, in essence, is to know a planet itself. This is why I've chosen to focus my studies as a geophysicist.

Now I've realized Geology is my own personal artform. It's a science, sure, but who ever said that science, especially Geology, couldn't be beautiful? Who said that it couldn't capture the imagination? That it lacked fluency or beauty? Geology, if you will forgive the pun, is the most beautiful thing on Earth. It literally surrounds us. It brings me comfort in literally understanding the Earth: the secrets it holds underneath the folds of its crust suddenly reveal themselves. I see the patterns in shorelines. I hear the long, droning song of this wonderful planet. And I love the feeling of it all. Geology is a science that allows intimacy with Earth's greatest secrets. And this alone makes me feel useful, fulfilled, finally happy. And happy is something I thought I'd never be.

Firdaus Ridzuan, SA-5269

Dry deserts, snow blizzards, tropical greens – I know them all. I know them not from pictures and textbooks, but I have lived my life in these very diverse environments. My childhood years spent in Malaysia's outdoor greeneries and beaches; my adventurous frolics in the Jebel desert behind my backyard walls in the Middle East; the beautiful snow blizzards drowning my Iowan apartment in flakes of white are all part of the Jigsaw pieces that make up my life. Nature has surrounded me like a baby in its mother's womb and truly, she is inescapable. She captures me in her wonders and mesmerizes me in her beauties. Never once has she failed to empower me.

As I embark on my undergraduate journey at Iowa State University, my passion for geology continues to blossom. Blessed with dedicated and enthusiastic professors, I look at my courses not as a burden but as a source of delight. I love learning mineralogy, structural geology, sedimentology, stratigraphy, seismology, and surficial processes. I took pleasure in walking 2,000 feet up the Permian Reef Trail to classify limestones and identify a plethora of marine fossils. I participated in a research on sulfide ore deposits in Sweden and readily did petrographic analysis of thin sections for a whole semester. I even initiated an independent study with my professor to learn about petrophysics as it is not taught at my university. The more I learn, the more there is that I have to learn. I made special requests, semester by semester, to lift my credit hour limit so that I could dissect the Earth to my heart's content and discover more of her beauties. My passion grew ardently that I am able to finish my undergraduate studies in only two-and-a-half years.

As I learn more about geology, I begin to appreciate its significance in the real world. Certainly, there were times when I hesitated to scrutinize the rocks deeper than their surface – I was afraid I would depreciate Mother Earth when I view her through the lens of science. Yet, as I delve further into the subject, I realize that geology is as much an art as it is a science. Putting together stratigraphic columns, cross-sections, core data, and geologic maps, I beam at the opportunity to model the subsurface and making seen the unseen. I enjoy making well-log correlation and interpreting depositional environments to reconstruct Earth's history. I appreciate the fact that there's only so much we can observe and extract from the Earth – others, we have to assume, predict, and interpret. In that, I believe, lies the true beauty of being a geologist.

When I graduate with my bachelor's degree, I intend to pursue a Masters in Geology straightaway. I look forward to interpreting the geological and petrophysical meaning of the Iowa Pore Index to characterize the pores of different limestone deposits to build sustainable roads. I wish to eventually enter the oil-and-gas industry and contribute to society using my knowledge of geology. I am determined to finding oil in remote, undiscovered regions and ensuring a safe, reliable extraction of fossil fuels to minimize environmental damage and meet the world's energy demand while our society manages to transit to a low-carbon environment.

Colin Sturrock, SA-3853

Why I Want to Become a Geologist

My journey to becoming a geologist began so long ago I hardly have any clear memories of it. At the time I didn't want to be a geologist, as I was much more fascinated by the related science of paleontology. At three or four I remember telling everyone who asked and some who didn't that I was going to be a paleontologist when I grew up, and I began excavating the areas around my house, in the playground at school and wherever else I could, finding shallowly buried items that I generously interpreted as dinosaur fossils. I was more than a kid with T-Rex pajamas watching *Jurassic Park* on VHS, and my love for the large animals of the Mesozoic bordered on the obsessive. I was much happier with a documentary or encyclopedia entry than *The Land Before Time*, as I knew even then that "long necks" were actually Apatosaurus. As I grew older and began camping with my dad at six, my fascination with the world of many millions of years ago translated to that of today. Our monthly camping trips took us to many parts of the U.S., atop 14,000 foot peaks in Colorado and through canyons cut by whitewater in New Mexico. Eventually we were gazing upon majestic, snowcapped, lonely conical volcanoes in the Chilean Andes astride mountain bikes laden with camping gear. However, even after this 400 mile trek through some of the most inspiring geologic landscape during my junior year in high school, I wasn't even vaguely considering studying geology. I barely even knew what a geologist did.

It wasn't until the second semester of my freshman year at the University of Texas at Austin that I formally recognized the path I had begun many years before. I took an introductory geology course to fulfill a science requirement for my Plan II Honors degree, and interrelated studies program in Liberal Arts, and I was hooked. I soon began inspecting granite blocks on campus for biotite and quartz grains amidst the overwhelming pink feldspar, and I even convinced a friend to drive me out to the roadcuts along City Park Road a bit out of town to collect Cretaceous gastropods, bivalves, and even a few echinoids. I saw clearly then that geology was the ideal intellectual discipline for me; combining a rigorous science and real world application that imparted significance, but also requiring creativity and appreciation of beauty that is often lost in other scientific disciplines.

Geology continues to feed and inspire my curious and imaginative side that caused me to fall in love with the world of the dinosaurs, and I couldn't ask for a better place to explore it. The opportunities afforded me at the Jackson School of Geosciences are incalculable, and I have been able to present the results of a small research project I completed at the 125th annual meeting of the Geological Society of America, and I am currently undertaking an undergraduate thesis involving beautifully fractured carbonates from the North Anatolian Fault as part of the Jackson Honors Program. I want to become a geologist because I think the problems and pursuits entailed are the most awe inspiring, beautifully intricate, innovative and important issues out there. Understanding our Earth is not only immensely rewarding on an intellectual and personal level, but it is also crucial if we are to preserve the multitude of resources and environments it contains. I want to become a professional geologist not only for the satisfaction of my own curiosities but to benefit our Earth and all those who live on it as well.

Nicholas Spano, SA-4337

Why I want to become a geologist

There are many reasons why I would like to become a geologist, but I would have to say that the most important reason to me is the interdisciplinary nature of geology itself. When I tell most people that I am studying geology, they begin by expressing their concern with the question "why rocks?" Although it is true that yes, geology is the study of the Earth and this Earth features many mineral aggregates, it is also true that this Earth is made of life and water, weather and climates, mysterious masses at depth, and cosmic clues to everything else. It is this integrative set of sciences that fascinates me. It also makes me question how some people can think of geology as a singular subject.

Most post-secondary geology programs tend to feature a standard set of courses including an introductory course, historical geology, mineralogy, petrology, and at least a sedimentology and stratigraphy course. Albeit these classes follow what many tend to think of as typical geology, there are also many elective courses that extend limbs into various departments, including civil engineering, geography, biology, chemistry, astronomy, and even statistics via geostatistics. At institutions with these electives among others, these opportu-

nities allow undergraduate geology students such as myself to explore a suite of courses unsurpassed in diversity compared to other majors.

It is this interdisciplinary nature of the natural Earth that gives me the drive and desire to study it. The ground-breaking interdisciplinary titles of those who do likewise also inspires me to go into geology. Edward Jenner, who is seen today as the father of modern immunology, was also renowned as both a professional geologist and paleontologist in his time. Lord Kelvin looked at the Earth as a giant laboratory, incapable of intrinsically generating heat when he made his refutes against Lyell's new idea of Uniformitarianism. Perhaps the best known and most revered of these renaissance men is Charles Darwin, who for as famous as he is for his theory of evolution via natural selection, considered himself a geologist by training as he accurately postulated the genesis of seamounts. Alfred Russel Wallace, co-father of the same theory and professional entomologist in his own right, is also known as the father of biogeography. Wallace was also first to suggest a human cause to the late-Quaternary extinctions worldwide. Even Stephen Jay Gould had his expertise in baseball trivia, such that his interviews can still be viewed on cable television networks today. All of these figures are acclaimed for their efforts common to geology, which inspire me towards becoming a professional geologist today.

In terms of my geologic interests, I am currently in my senior undergrad year at the University of Minnesota-Duluth and have applied to a few graduate programs to collectively study fossil proxies for paleoclimate reconstruction. I have applied to the University of Arizona to work on my Master's degree in Geosciences with paleo-lake basin cores. This project concerns the past 5 million years of hominid history and climate change. Through charcoal fragments in drill cores at former lake basins along the east-African rift valley, the goal is to develop a high-resolution paleoclimate record near human fossil sites. This work has vested interests for many anthropologists, climatologists, and stratigraphers and myself alike involved with this interdisciplinary, international project.

One aspect of fossil proxies that I am quite interested in and considering for grad school as well is the growing discipline of conservation paleobiology, in which fossil data are applied to conservation efforts. Along with paleoclimate proxies, these applications include ecological restoration goals, extinction analogs, and long-term extant research via stable isotope records. These studies are becoming increasingly important as the Anthropocene is coming into being as a stratigraphic period and species are experiencing extinctions at rates unsurpassed in recorded history. However many paths I could have taken, it is through my interdisciplinary studies and research in geology that I have made it to this point and know that I want to continue further as a professional geologist.

Ryan Phillip, SA-5283

Why I Want to Become a Geologist

When I began my college career back in the spring semester of 2011 I declared myself a Marine Biology major at the University of Southern Mississippi. Due to a last-minute decision to apply, the courses I ended up taking my first semester were Introduction to Oceanography and Physical Geology. At this point I had never been exposed to a geology class and, quite frankly, had no idea what a geologist was or did. Throughout the semester I found myself becoming more and more fascinated by what I was learning in my Physical Geology course. I began staying after class and asking my professor questions such as what geologists do for careers. By the end of the semester I made the decision to change my major from Marine Biology to Geology. I immediately signed up to take a Historical Geology course for the summer semester 2011. I was further intrigued by what I learned. My family then moved to Georgia, which forced me to miss the fall semester that year; however, I was accepted to Georgia Highlands College in the spring of 2012. After focusing on core courses for three semesters I needed to transfer to a college with a good geology program. In the fall of 2013 I was accepted at the University of West Georgia, which is the university I am currently attending. I have since been taking geology courses and will continue to do so throughout my academic career of obtaining a Bachelor's degree followed by a Master's degree.

All aspects of geology interest me; however, there are a few that particularly appeal to me. I believe structural geology is very useful to understand. It is truly amazing that we can, for the most part, "see" what is beneath the surface of Earth. We can basically find where and how deep a certain stratigraphic layer travels by using a map, providing an incredibly useful tool for mining exploration. Structural geology can be applied to countless situations as well as different career fields.

I also enjoy the chemistry of geology. I believe that understanding what different minerals and rocks are made up of is necessary for things such as decision making and laboratory research. I wish to incorporate chemistry into my future geology career in order to better understand the components of the rocks and minerals I work with.

Lastly, I think water plays a significant part in geology. Understanding groundwater and how water affects both the physical and chemical aspects of the earth can be useful to many different careers in geology. Water is a powerful, yet common force that can shape the environment and is present in our everyday lives. I want to be able to understand the effects of water on our current environment as well as determine what it might do to our future environment.

In conclusion, geology can be applied to many different subjects and careers. I enjoy incorporating different fields of study into geology in hopes of expanding our understanding of the earth we live on. I want to be able to solve problems as well as help others solve their problems in my future career using my knowledge of geology.

Alexandra Price, SA-4341

Deciphering the incredible and complex landscape, the earth's remarkable history, identifying minerals, knowing how and where to extract resources. Geologists tell stories of millions and billions of years, with relative and absolute evidence. Geologists seek history on a gigantic scale; finding and uncovering the oldest objects on earth, incredible! It makes

me feel very small in the greater scheme of things. There are many reasons why being a geologist is awesome! Learning geology has given me a different perspective of the planet and of life. It has made me a better person and completed a part of me. I originally became passionate about natural disasters, especially volcanoes. So I choose a major in geology; which amazingly, has led me to where I am now today, on a tough but beautiful path.

Now as a junior at Colorado Mesa University in Grand Junction, I have more passion then I could have dreamed for learning about geology; and science in general. I now have acquired two minors; in Geographic Information Systems and Archaeology. I have had the opportunity to work hard be at the top of my class; to find responsibility in my discipline. I am president of the CMU Zeta Nu chapter of Sigma Gamma Epsilon, an Earth Honor Society. I am vice president of the local chapter of Alpha Chi and have been on the Dean's list every semester I have attended college. I never would have imagined I am where I am after the trials and tribulations I have faced. I have raised a child (who is two and a half now) and made my way through college with no support for my son or myself. I work two part time jobs, take 14 credit hours at CMU and nurture and support a wonderful little boy. It is long days and I am tired. But every day I have gratitude for what I have, all the opportunities I have been given, all of the people who have been kind to me and cared about me becoming successful, becoming a geologist.

I have been extremely blessed with wonderful opportunities to work and gain experience. I was offered an internship at the Bureau of Land Management as a GIS specialist's intern in the Grand Junction Field Office. Additionally, I teach elementary school science in after school programs in the community with the John McConnell Math and Science Center. Teaching children science has been one of the most fulfilling tasks I have ever undertaken. I look forward to every day at each school interacting with the children and sharing the things that I have been taught. Igniting a fire of learning and nurturing the growth of their education means so very much to me. It is a really special thing to be a part of. When the children ask me questions and are intrigued— I know that it is not just about me and my advancement but about the whole community. When they hug me (and cried the last day of class!) I know that I set a good example of being a S.T.E.M. student in college; overcoming adversity; while being genuine and compassionate as a teacher!

I am a Grand Junction Geological Society member, an AAPG member of the founding chapter of AAPG at CMU and a Grand Junction Gem and Mineral Club member. I have been an AIPG member since 2012 and I volunteered to help with the AIPG booth at GSA in 2013. I spend my spare time helping, for example tutoring geology and volunteering at the Gem and Mineral shows. Maybe, after all of that you asked yourself what I do for myself and where do I find any free time. If I get a little time it is spent rock climbing-- which goes incredibly well with geology!

I want to become a geologist not only because I love the field, but I want to better my life. I want to be a great example to my son and others. I want to make myself proud, and send of message of no matter the circumstances, one can overcome obstacles. I want to make advancements in science and continue to strive for more learning. I want to give back to others, as I have been given to. For all the opportunities, I am grateful for each and every amount of help and encouragement I have received. I am especially grateful for this opportunity to apply for the AIPG scholarship -- that will help affirm hard work pays off and allows the sight of graduation as a geologist in 2015, to be obtainable.

Ashley Pales, SA-5215

Hydrogeology is my passion because water is everywhere, in everything, is everything. Currently I am working under a professor at NIU as a lab assistant working on water contamination filtration media. The fascinating part about this research aside from learning new ways to clean contaminated water is learning how the geology of different areas can have a huge impact on the lives of the local people. The project is centered on the high contamination of fluoride and arsenic in Central Mexico. The geology of the area is interesting especially because it naturally contains elevated levels of these contaminants. By knowing the geology of an area we can change the lives of people who live there.

I am passionate about being a geologist because I want to be able to make a difference in the world. I would like to think that I could be that one person who can have a large impact worldwide. However, I also understand that the smallest impacts can add up to important differences in the lives that I have the ability and opportunity to touch. I feel that through geology I can have a direct impact on many people and how they live. Hydrogeology more specifically is how I want to make an impact, but without geology, the hydro aspect is less significant as groundwater is where the majority of where our drinking water comes from.

The direct link between the hard rock, water, and environmental aspects that hydrogeology provides is where I find a balance in science and application. I like geology because it is also a physical science, with physical results that are substantial and impactful. I like to be able to test and see the effects and outcomes from any experiments in geology. Having the immediate physical response to a problem makes it easier to understand and convey the science behind it to others. I also enjoy geology because it is a science that tries to communicate with the general public a lot. By having scientists who care about bridging the knowledge gap and have the ability to do so is very important.

Aside from the aspects of geology that are more attributable to the world I also really enjoy and find a deep fascination in the history that the deep earth can tell us. I enjoy history and knowing why and how something came about. Through studying geology and learning about the geologic record through paleo proxy records I find a wealth of information that is still unsolvable. The mystery that still accompanies all the infor-

mation we have about the earth and geology as a science is very captivating. There is still room for many new discoveries and innovations to be made, there are still nooks and niches to be excavated, and a never ending stream of knowledge that stems from our planet.

Interested in the geological sciences I truly appreciate that AIPG assists potential upcoming professionals through their education and into the field. I also believe that through AIPG I will be able to make important professional connections that will last a lifetime.

Jessica Badgeley, SA-4335

A year ago, I declared my geology major at Colorado College. I already knew that I wanted to be a geologist, but experiences following my declaration have strengthened my desire and commitment to geological research. In the spring of 2013, Dr. Erin Pettit of the University of Alaska Fairbanks invited me to do a geophysical survey of Kennicott Glacier in Alaska. Our aim was to measure the thickness of the glacier and, although we weren't entirely successful, the project ignited my interest in remote sensing and glaciology. Later that year, Dr. Pettit asked me to be a research assistant for her field team studying Blood Falls in Antarctica, and I jumped at the opportunity. The project fascinated me and would allow me to jumpstart my research career by my participation in all aspects of the research, from field work to data analysis. It would also introduce me to the theory and applications of geophysical remote sensing, which will be a great asset in my future research.

In November and December 2013, I worked with Dr. Pettit's team to map the brine network feeding Blood Falls – a red, microbe-rich brine periodically flowing off the terminus of Taylor Glacier in the Dry Valleys of Antarctica. In the field, I loved the challenging terrain and relished every time I learned a new skill, such as climbing steep walls of ice and avoiding thinly crusted-over ponds. I never tired of the scenery. Each day we hiked over lake ice and through supraglacial channels, skirting torrents of water, to get to the top of Blood Falls – a striking contrast of bright-red brine against blue ice. Nearby, glaciers dripped from the walls of Taylor Valley and each day I discovered new and intricate bubble patterns in the lake ice. This place inspired questions, brought moments of awe, presented new challenges, and created in me a strong desire to discover the story and science of the landscape.

While at Blood Falls, our main geophysical tool was ground-penetrating radar. We used it to visualize features in and below the ice around Blood Falls. Once we process and analyze the data, it will allow us to map the brine network within the glacier. This will allow us to decide where to drill in order to most easily extract brine samples. Analysis of the brine will help us better understand the curious mystery of how microbes survive such isolated and cold subglacial conditions. Other analyses will elucidate the origin of the brine which will in turn tell us if there is more brine hiding under other Antarctic glaciers. Knowledge of how much liquid may be concealed beneath the Antarctic glaciers will help us better understand their dynamics and how the glaciers will change in the future. Accurately modeling glacier change will help predict sea-level rise and the negative effects that it will have on the environment and humanity. As a scientist, I view it as my responsibility to keep the Earth, including humans, as natural and healthy as possible. Through this project and my knowledge of climate change, I know that geology, and particularly glaciology, is extremely important if we want to protect the environment and humanity.

Working on the Blood Falls project, I am becoming skilled with various instruments and techniques useful to collecting productive data. I am also increasing my knowledge of glaciology, geophysics, geochemistry, remote sensing, modeling, and microbiology. I love how geology integrates so many diverse elements and how it continuously provides intellectual, artistic and physical challenges. It is also a field in which I can be guided by my morals and do science that has a positive impact on the world around me. This is why I want to be a geologist.

Carly Siko, SA-5240

Why I want to become a geologist

I am pursuing geology because it makes sense and seems as if it's a part of me. My interest in the earth came early. Many of my favorite childhood books included picture books on volcanoes and earthquakes. Living around the Great Lakes, all trips to any lake required searching for interesting and varied rocks. My frustration was in trying to identify the rocks without knowing if I was correct. That interest found a home when I attended a summer camp at Michigan Technological University and discovered that there are jobs for people with my interest. I am currently a sophomore at Michigan Technological University, majoring in Geological Engineering. The more I learn about this field, the more I know I'm in the right place.

Recently, I took an introduction to Mineralogy course. On my first day in lab the coordinator, Bob, set out several common minerals and asked us to name them. I couldn't even tell calcite from quartz! Bob explained the only way to get better at identifying minerals was through practice and exposure. We identified 15-20 unknown minerals weekly; a long, grueling process at first. I looked at luster, cleavage, color, hardness, and specific gravity for each sample before I even attempted at guessing its name. After a few weeks, I began to spot identify minerals like garnet and tourmaline. As I gained confidence in my identification skills, I was able to spot identify 10-20

minerals per lab. I liked challenging myself, and even asked Bob to throw some challenging minerals in the mix just for fun. These samples were provided in the classroom, a controlled setting. This summer I will spend time in the field where I will be identifying minerals in their "raw" state to advance my skills.

My first experience in field work will be "Field Geology with Engineering Applications" and "Field Geophysics" coursework. Learning the correct use of instruments, assessing terrain, and mapping in the field will be the basis on which future geological explorations are built. I take this seriously and believe a solid field experience will help me become a competent geologist. I also recognize that repeated exposure at the field level is necessary to provide that strong foundation.

As a professional, I will need to work in various settings and work efficiently under pressure. I took advantage of a week-long leadership camp, called LeaderShape, during semester break to further develop my leadership and teamwork skills. LeaderShape taught me that leaders are made, not born. They possess a drive to go after their dreams, and motivate others to do the same. LeaderShape taught me to break down these dreams into small achievable goals and promote the involvement of others for goal achievement.

Due to globalization, professionals must adapt to and socialize with people from different cultures. My experience as a coach in the Multiliteracies Center taught me how to engage in professional relationships with people from different backgrounds. By tutoring international students, I have learned about the cultures of students from Korea, China, and India.

To be a competent geologist, I'll need to continue to grow and learn. To be a successful geologist, I'll also need to work effectively in groups and respect the differences among people. Through the structure at MTU, my extracurricular experiences, and volunteer work I am working toward achieving the skills needed to be a successful geologist. This field excites me and I am always seeking to learn more. I know I chose the right major for myself, and look forward to a future in geology.

Alexandra Price, SA-4341 receiving her scholarship check from Edward Baltzer, CPG-8861.

On May 20, 2014, David Abbott, CPG-4570, President of the Colorado Section, and Jack Denman, MEM-2472, Colorado Section Advisor and Colorado College alumnus, presented Jessica Badgeley, SA-4335, a Colorado College geology major, with her $1,000 National Scholarship award. They met for lunch as a Colorado Springs restaurant and talked about AIPG, geology as a profession, and Jessica's particular interests.

I wanted to Thank you and the AIPG Education Committee, Executive Committee and The Executive Director for the generous scholarship. I was so surprised and excited when Mr. Michael Jacobs presented me with this honor. I am thrilled at the opportunity to apply these funds to my field methods class this May and then to start my thesis research this summer. Receiving this scholarship, motivates me to maintain my GPA and complete my degree without the worries of finances. I look forward to being able to give back to the community once I begin my career geology. I thank you for your confidence and willingness to help me achieve my goals. It truly means the world to me.

Kara Mjolhus, SA-4742

Scholarship winner Alexandra Price, SA-4341, teaching her son, Bentley, at an early age what rocks are all about.