

DEQ Lab Chemist Gordon Seele Retires



2011 marks the year that Gordon Seele retired from a long career as a research chemist that eventually brought him to DEQ in the early 1990s. He has had an interesting career path that placed him in challenging responsibilities. Gordon completed his undergraduate education at Caltech and his graduate studies at M.I.T., majoring in geochemistry.

At Caltech, where as a freshman he first studied chemistry under Linus Pauling¹, he categorized and organized the school's entire mineral collection. He has studied glacial flows on site in Canada, co-authored a journal paper on improved mineral recovery in froth flotation, and investigated electrochemical sea water desalination. He studied ionization processes involving cesium ion beams, and designed, built and tested ion thrusters which led him to a meeting with Dr. Wernher von Braun regarding the usefulness of ion thrust as an engine for space travel. In the early 1960's, the heyday of the race for space, Gordon worked for the Rocketdyne division of Rockwell International. As a chemist, he worked for Xerox in the development of an automatic serum analyzer. Before coming to DEQ, he also supervised the analytical chemistry laboratory for a California pharmaceutical

company to develop new volumetric and gravimetric methods, supervised quality control, and acted as a plant manager.

Gordon came to DEQ in 1992, to find a new focus for his considerable analytical chemistry background at the Lab. Raeann Haynes, who manages the Inorganic Section where Gordon worked, noted that "Gordon was a dedicated member for the LEAD Inorganic section for almost 20 years and retired at 79 years of youth. He rarely missed a day of work and produced excellent analytical results. He was very popular with the high school students that came to the laboratory through the Saturday Academy. I received many very positive comments from the students and from their parents over the 9 years Gordon volunteered to participate in that program."

Gordon valued his time at DEQ as an opportunity to be useful and to apply his background toward public service. His age at retirement demonstrates a lifelong commitment to the work ethic and the value of staying active and applying one's talents and abilities. His presence is missed at the Lab, and this article is a way to let him share some insight into his thoughts and memories, and for all of us to appreciate some details from his life and career.

The following questions were presented to Gordon over lunch earlier this year:

Please talk about your personal history a little, where you grew up, something about your family, and your early interests.

I grew up in Los Angeles, Calif, and attended the secondary schools there. My father was an electrical contractor and in the late 1930's helped install the electrical equipment for Hoover Dam. My early interests were in both chemistry and mountain climbing. I received my first chemistry set for Christmas at the age of 10.

What are some interesting details about your education: What was your major, and what did you envision yourself doing as a career when you were in school?

I skipped 1 1/2 years in the secondary schools and graduated from high school at 16. I went on to college as an undergraduate at the California Institute of Technology (Caltech). When I was a freshman at 17, Linus Pauling taught us freshman chemistry. I majored in geochemistry which meant that I took courses in both chemistry and geology. As a junior, Charles Richter taught us seismology².

I did graduate work at M.I.T. in the areas of crystallography and geochemistry. I had both teaching and research assistantships as well as a staff scholarship. For one year I was a member of the M.I.T. Division of Sponsored Research staff. I envisioned myself working in some type of academic laboratory as a career.

How would you best describe yourself?

I would describe myself as a geochemist, primarily interested in learning and doing work in those areas.

Who stands out as being influential in shaping your career?

One of the teachers who influenced me the most was probably Linus Pauling at Caltech.

How did you get involved with DEQ?

I got involved with DEQ after I learned there were some openings from the list of State jobs.

Was your work for the Lab all under one job heading, or did you take on some different roles?

I worked almost exclusively as a Chemist 2.

How would you describe the work that you did, in terms of what you analyzed and how that information was used?

At the DEQ lab I worked primarily in analyzing both liquid and solid samples for a variety of analytes such as total phosphorus, orthophosphate, BOD, ammonia, nitrate, TKN, physicals, and solids. This information was used to create a database such that when problems in the field were noted, they could be immediately investigated.

In looking back at your work for DEQ, what tasks and challenges come to mind?

Most important and symbolic of my work was probably to provide timely and accurate data for the analysis of samples for total phosphorus over a period of about 15 years.

If you could have had the perfect job for your skills and interests, what would you choose?

For the perfect job for my skills and interests I would probably have chosen to teach students in some areas that I had knowledge and expertise, such as geochemistry or mineralogy.

What advice might you have for others following your path?

I would advise others to (1) study hard in school, (2) study subjects that you are most interested in and (3) try to finish all your education before any marriage commitments.

What is your feeling about retirement in general?

At present I would rather be working than retired, but I realize that I have become infirm and I also need to take time for some personal matters.

What is your most treasured memory and why is it special to you?

My most treasured memory is the nine summers I spent mentoring high school students in analytical chemistry and watching their careers grow. It was special to me because it was a chance to really make a difference in a young person's life.

Did you have any outside activities that you thought were important - what did you typically like to do with your free time?

When I was younger my favorite sport was mountain climbing. I climbed Mt. Shasta, twice, Mt. Whitney, twice, Mt Hood, once and many peaks in the Sierra Nevada.

In terms of advice, what should people be doing to ensure that they can feel that they get the most satisfaction out of life?

The most important thing is to optimize your happiness and the happiness of your family and loved ones. Make sure you always have the proper balance between your academic studies/ career and your family. Teach your children the value of education.

Gordon's message back to his fellow workers at the Lab, in parting, was to say that "although I will miss every one of you at DEQ, I will spend the extra time I have now taking care of my house in Salem and my family home I recently inherited in Los Angeles. I'm also working on improving my health."

He would enjoy hearing back from others at DEQ, especially his co-workers. If you would like to get in touch with Gordon, drop an email to [Gordon contact info](#) for the details.

1. Linus Pauling is the renowned vitamin C researcher who has been referred to as the "father of molecular biology, and did much of his research at Caltech.

2. Charles Richter is the Physicist and Seismologist who originated the Richter scale of earthquake magnitude.