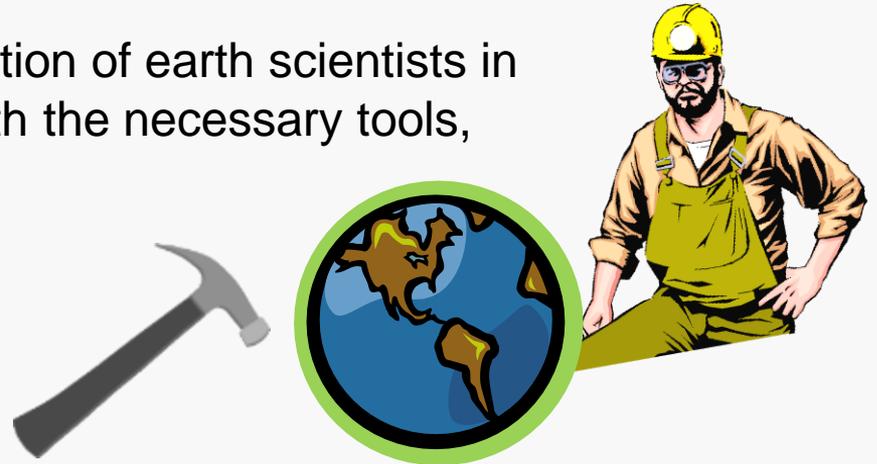


Finding and Maintaining A Geoscience Job in Africa

**Gilbert Erelumhe Odior, FNAPE
AAPG Africa Region President (2012-2014)**

Introduction

- ❖ Continent-wide climate
- ❖ Addressing the problems
 - ❑ Many earth-related challenges facing Africa can only be addressed if our young generations are equipped with necessary knowledge
 - ❑ Developing the next generation of earth scientists in Africa who are equipped with the necessary tools, networks and perspectives.



Finding a Geoscience Job

Preparation and discipline – maximizing the educational opportunity

- ❖ Acquiring good technical knowledge
 - Making good use of educational resources – Library, Geoscience Journals, Bulletins, etc.

- **Companies differ, but**
- **All favor a mixture of: science, computer, non-tech**
- **Geology & Geophysics**
- **Fieldwork and mapping experience are important**

Top Technical Skills:

- **Structural Geology**
- **Geophysics**
- **Sedimentology**
- **Mapping**
- **Strat/Sequence Strat**
- **Petroleum Systems**
- **Regional Geology**
- **Reservoir Geology**

Finding a Geoscience Job

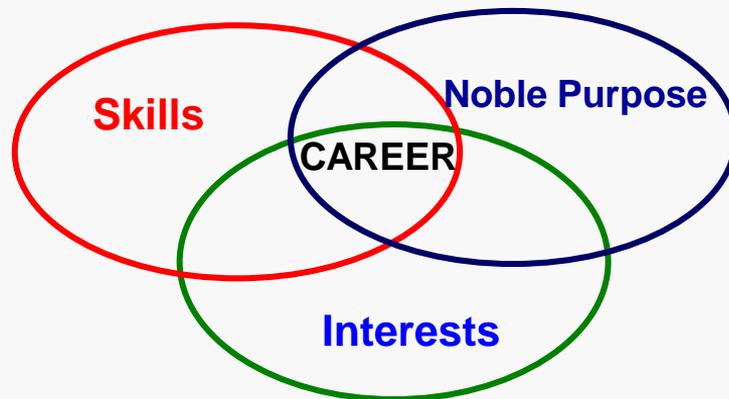
Preparation and discipline – maximizing the educational opportunity

- ❖ Building the right relationships –Students, Lecturers, Industry
- ❖ Participation – Maximum benefits at **NAPE Student Conference**
- ❖ Maximizing access to Professional Associations
 - Understanding why you need them
- ❖ The role of mentoring
 - Purpose of mentoring
 - Finding the right mentors
 - academic
 - industry mentors
- ❖ Good grades are important.

Finding a Geoscience Job

Preparation and discipline – maximizing the educational opportunity

- ❖ The right direction - understanding your purpose



Noble Purpose: A passion to pursue meaningful work that benefits society

Skills: A person's talents or abilities

Interests: A person's preferred activities or hobbies



THE GEOSCIENCE GRADUATE'S OPTIONS

Oil & Gas



Environment,
Engr, Other

Minerals



Finding a Geoscience Job

Preparing for the industry

Geoscience specialization of choice – areas of interest

BRANCHES IN GEOLOGY

- Petroleum geologist
- Geophysicist
- Mineralogist
- Hydrogeologist
- Seismologist
- Mining geologist
- Volcanologist
- Environmental geologist
- Engineering geologist
- Sedimentologist
- Paleontologist
- Petrologist



Geology can help us find new mineral deposits.

Environmental Geologists



Geological assessment of an impacted site

Investigate environmental conditions to meet government regulations for environmental protection. Work with Companies to ensure compliance

Engineering Geologist



Site Investigation for Critical Facilities – Nuclear Power Plants

Site critical facilities like Bridges, Nuclear Power Plants, Dams, etc. and work with Civil Engineers to make sure the structures are safe from earthquakes, landslides, volcanos and other potential disasters

Mining Geologists



Explore for and find mineral deposits such as coal, sulfur, bauxite (for aluminum), iron ore, diamonds and other precious and semi-precious minerals, gold, silver, etc. Work with Mining Engineers to produce deposits safely and efficiently

Minerals being explored for in Africa
Coal, Tin, Tantalum, Columbite, Iron ore & Copper, Gold, Bitumen, Uranium, Diamonds



A mine

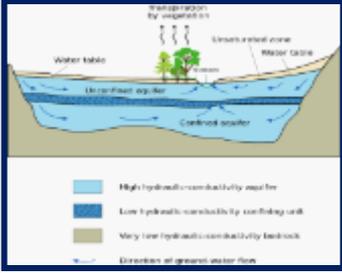
HydroGeologists



Hydro-Geologist rigging up a flow meter

Explore for, locate and produce groundwater. Site fresh water wells, analyze groundwater for contaminants

Groundwater



Rudimentary water supply.

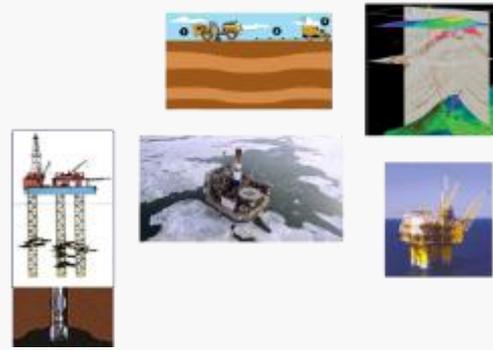
Petroleum Geologists

Explore for and find Oil and Gas; then work with Reservoir Engineers to produce it safely and efficiently

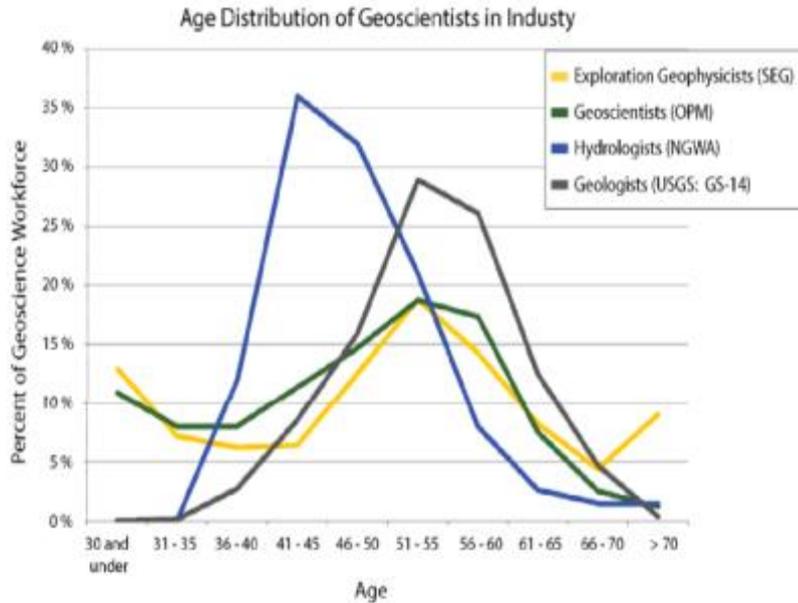
THE PETROLEUM INDUSTRY



FINDING AND PRODUCING CRUDE OIL



The generations



Source: AGI Geoscience Workforce Program, data derived from Society of Exploration Geophysicists, US Office of Personnel Management, National Groundwater Association, and USGS: USGS Workforce Demographics and Trends, Peter T. Lytle 33rd IGC, Oslo, Norway, August 10, 2008

- **Traditionalists** **1925-45**
 - Resistant to high tech
 - Value stable environment
 - Want to leave a legacy
- **Baby Boomers** **1946-64**
 - Grounded in Fundamentals
 - Willing to learn
 - Try to build successful careers
- **Generation X** **1976-80**
 - Adept with technology
 - Looking for portable careers
- **Generation Y** **1981-02**
 - **Technologically superior**
 - Respectful of tradition
 - Embrace diversity

COMPUTER SKILLS

- **PC skills Required!**
 - Word Processing
 - Spreadsheet
 - Presentation
- **Workstation**
 - Try to get exposure
 - Interpretation most important: Landmark, GeoQuest, etc.



Future Geoscientist?



Finding a Geoscience Job

Preparing for the industry – getting the right job

- ❖ Developing competitiveness
 - Acquiring relevant certification – training; further study
 - Acquiring skills

Job Market Expectations By Employers

Required Traits

Self-motivated

Computer Literate

Well Educated

Team Player

Excellent Communicator

Finding a Geoscience Job

Preparing for the industry-getting the right job

- ❖ Preparing for interviews
 - CV's & resumes
 - Interview skills
 - Physical presentation

CANDIDATE INTERVIEW PREPARATION

To make interviews result in a job offer, practice the following tips

Dress Code
A candidate's appearance (whether good or bad) is going to give a potential employer peace. Make a positive first impression!



PRE-PLANNING
The key to any interview is pre-planning 3 steps:

- 1 Research
- 2 Organize
- 3 Execute

Enthusiasm
Enthusiasm sells! Show it by having a lot of pre-thought-out questions, and by being warm, dynamic, and outgoing. Always ask for the job!



Do Your Homework
Find out everything about the company, its products, its customers, and its opportunities prior to the interview.



PREPARE THESE LISTS OF:

- Top 10 Questions: Number of rights away a month? Major challenges in this job? Viability this position offers...
- Top 10 Reasons for Interest: Am excited about the challenge. Dynamic learning curve. Company's future is bright...

So What?
As the candidate, speak in terms of tangible benefits: Problems Solved, Money Saved, Products Created...



Job Changes
Keep changes to past jobs concise (no complaining or blaming), and then move on.

Body Language
The eye contact. Always keep energy level up. Be consistent in your answers from interview to interview and remain enthusiastic no matter what.



Testimonials
Provide samples or letters of success. Refer to companies and high-profile people when including achievements.



Role play with someone in advance of the interview.

Wow...



Don't discuss salary, bonus, or benefits too soon.

Hint: 401K



Always Ask, Ask, Ask for the Job!



Follow up with your Executive Search Consultant or employer coach.



Please visit our website, www.aapg.org, for the complete list of Candidate Interview Presentations.



"You'll see from my medical records that I was born six weeks premature. I've always been very good at completing projects ahead of schedule!"



Maintaining a Geoscience Job

- ❖ **Developing the right work ethics**
 - ❑ **The place of hard work & diligence**
 - ❑ **Developing accountability, reliability & honesty**
- ❖ **Maintaining relevance – being an asset**
 - ❑ **Continuing education in the geosciences – courses, seminars etc.**
 - ❑ **Developing new skills –management, team work, oral communication, leadership, public speaking , decision making**

Non-technical Skills

- ✓ **Initiative**
- ✓ **Innovation**
- ✓ **Ethics and Integrity**
- ✓ **ENTHUSIASM**
- ✓ **Adaptability**
- ✓ **Cooperation**
- ✓ **Oral Communication**
- ✓ **Grasp & Summarize Key Issues**



THE PRODUCTIVITY “GAP”

STARTING
UNIVERSITY

8 Years

PRODUCTIVE
GEOSCIENTIST

Career Strategies

- Set Realistic Goals
 - Direction
 - Timing
- Prepare to Compete
 - Stay Versatile
 - Be Patient
 - Don't be Discouraged
- Network
 - Attend professional meetings (NAPE/AAPG)
- Keep Growing
 - Find, use a Mentor
 - Develop New Skills

Maintaining a Geoscience Job

- ❖ Developing and improving working relationships
- ❖ Keeping abreast with new & developing trends

Maximum contribution in an office is related to how current the employee is



Maintaining a Geoscience Job

Emphasizing the role of professional organizations

- ❖ **AAPG** (American Association of Petroleum Geologist)
- ❖ **AEG** (Association of Engineering Geologist)
- ❖ **SEPM** (Society of Exploration Paleontologists and Mineralogists)
- ❖ **Local Organizations and Chapters**

**Professional Societies
Why Join?**

Maintaining a Geoscience Job

Emphasizing the role of professional organizations

- ❖ Learn about your country's geology
- ❖ Learn about your future career
- ❖ See the world through other's eyes
- ❖ Increase your knowledge with exposure to leaders in science and industry
- ❖ Access to technical information and training
- ❖ Expand interpersonal, organizational, & management skills
- ❖ Network – interaction with peers
- ❖ Helps you throughout your career



Increase your knowledge with exposure to industry leaders – 2013 NAPE conference



Networking – Leadership Summit 2013



Membership Value Pyramid

Professionalism

Included in Membership

AAPG
PROFESSIONAL
COMMUNITY

Ethics/
Outreach

Advocacy/
Networking

Personal Member Programs

Discounted and/or Supported

Retirement
GeoVest

Health Care
GeoCare

Car Rental/
Credit Union

Professional Development And Outreach Programs

Mostly Subsidized

Special
Publications/
Digital Products

Annual Meeting,
International
Conferences

Division
Activities/
Certification

Short Courses
Field Trips
Online Learning

Grants
In Aid

Student
Membership &
Programs

Distinguished
Lectures/
Visiting Geologists

Mid-Career
Training
Centers

Access to
Foundation
Library

Basic Programs

Included in Membership

AAPG Bulletin
(Hard copy & Online)

Bulletin Archives
Online

Search & Discovery
e-journal

AAPG Explorer
(Hard copy & Online)

A
A
P
G

Maintaining a Geoscience Job

Emphasizing the importance of professional organizations

- **With the continued increase in complexity of our science, no one can expect to keep abreast of new ideas and new tool without constant education**
- **Most of us would probably suggest that attendance at re-search conferences, field trips, short courses and presentations of posters and oral papers at professional meetings are the best places to keep current**

Maintaining a Geoscience Job

Emphasizing the importance of professional organizations

The role of academic instructors

- Universities want their faculty and students to publish and present the results of their research at professional meetings.
- If faculty does not participate in the functions of their societies, how can there be a society? There would not be a place to publish or present research if there were no members willing to provide the expertise necessary to produce a forum.
- For those individuals that have never been involved in producing meetings and publications, it is not possible for them to comprehend the amount of effort and time required to produce quality products.
- Both academicians and administrators are guilty of not supporting the very system they seek to use. Therein lies the irony of the academic system.
- It seems that the current approach by both industry and academic personnel is to let someone else do it

We need men & women of goodwill to serve in our associations

- **Professionals that participate by continually giving their time and effort to our societies, please accept our gratitude**
- **Industry supervisors and those faculty and administrators in academia that guide, encourage, provide time, financial support and full reward to their employees in their efforts to participate, thank you**
- **These individuals are the backbone of all our societies**
- **Continue your efforts, everyone will benefit for many years to come**
- **A plea for responsible individuals to become involved in our society affairs as active participants. We need men and women of goodwill to serve in our various associations & committees most especially the executive committee.**

Thank you

Discussion

Ideas / Questions