

Nancy S. Alexander

EDUCATION: M.S., Applied Mathematics
State University of New York at Stony Brook, May, 1978

B.S., Mineral Engineering – Mathematics, minor Geophysics
Colorado School of Mines, May, 1976

WORK EXPERIENCE:

2007 - Present

*William M. Cobb & Associates, Inc.
Senior Geophysicist*

- Specializes in seismic fundamentals for mapping hydrocarbon targets. Interprets 2-D and 3-D seismic surveys. Incorporates information from well-log and production sources. Generates maps or grids which may be imported to other systems/software for further analysis. Competent with both computer and paper data.
- Models velocities for time-depth conversion. Understands complexities of salt tectonics, permafrost, and thin beds. Values seismic attributes and AVO analysis. Reviews acquisition and processing parameters against optimums for imaging intended depth objective. Monitors industry news and purported technology improvements.
- Provides support as needed for reservoir characterization, property evaluation, acquisition, divestiture, and legal projects.

1996 - 2007

Self-employed (McKinney, Sugarland, and Midland, Texas)

- Maintained contact with E & P professionals. Read technical journals and website information. Volunteered in numerous community organizations. Facilitated meetings, built consensus, clarified action items and taught subjects.

1988 - 1996

***Mobil Oil Corporation – (MEPUS Producing)
Senior Staff Production Geophysicist (Midland, TX)***

- Collaborated with geoscientists and engineers to extend hydrocarbon production in West Texas, New Mexico, Four-Corners, Oklahoma, and Kansas oil and gas fields in primary, secondary and tertiary recovery. Developed working knowledge of how fields are operated, how wells are drilled, and how economics drive decisions.
- Interpreted 2-D and 3-D seismic surveys and VSP data, fully integrated with well log cross-section and production data. Proposed seismic surveys, then QC'd the design, acquisition, and data processing. Recommended drilling and recompletion targets. Determined likely geologic reasons for well production histories. Testified at Railroad Commission hearings.
- Used/tested cutting-edge computer applications/technology and provided feedback for improvements. Represented company in research consortiums, paved access and steered experiments to areas that could benefit from the results.
- Coordinated geophysics efforts, cross-trained others, documented instructions and results and recommended timely and cost-effective solutions which influenced team actions.

1985 - 1988

***Phillips Petroleum Company
Staff Geophysicist (Denver, CO)***

- Development (1986-88): Interpreted seismic data. Mapped structures and isopachs for development or extension of fields in the Williston Basin, eastern Colorado, Texas panhandle and Oklahoma. Prepared parameters for shooting several new seismic programs and monitored data processing.
- Exploration (1985-86): Used seismic to determine hydrocarbon potential offshore California, Washington and Alaska. Proposed geometry and recording parameters for three 3-D seismic surveys.

1982 - 1985

***Phillips Petroleum Company – (Seismic Stratigraphy / Integrated Studies Group)
Senior Geophysicist (Bartlesville, OK)***

- Worked on multi-disciplinary team, generated regional and detailed structure and stratigraphic maps, evaluated acreage and developed hydrocarbon prospects.

Incorporated 1-D and 2-D modeling, velocity analyses, gravity and magnetic data, tectonic reconstruction, and modeling of hydrocarbon migration routes. Produced comprehensive reports and recommended bid areas for licensing rounds.

- Became an expert in Vertical Seismic Profiles (VSPs). Trained others in how to plan, collect, process, and utilize VSP information. Prepared and distributed user's manuals, with several concrete examples. Devised company library system for archiving the raw and interpreted data. Assistant instructor for in-house courses.
- In-depth study of full sonic-log waveforms and transferred the technology from R&D to E&P via written reports and oral presentations using case histories. Contributed some results to an industry textbook.

1978 - 1982

Phillips Petroleum Company – (Seismic Data Processing) Associate Geophysicist (Bartlesville, OK)

- Processed land and marine seismic data from North America, Europe, and Africa. Conducted noise tests and recommended field recording parameters. Compared methods for 3-D versus 2-D and for Shear-wave versus Compressional-wave. Issued written reports and orally presented findings.
- As a team leader, coordinated efforts, ensured quality, trained 10 geophysicists and five technicians and conducted recruiting. Maintained open communication with computer operations, technical services, and managers.

TECHNICAL AND PROFESSIONAL SOCIETIES:

- Society of Exploration Geophysicists (SEG), 1989-present
 - Development & Production, SEG, 1990-96
- Dallas Geophysical Society (DGS), 2007-present
- Permian Basin Geophysical Society (PBGS), 1988-96
- West Texas Geological Society (WTGS), 1988-96
- Permian Basin Well Log Society (PBWLS), 1998-96
- Dallas SMT users group, 2007-present

PUBLICATIONS:

- Contributed to
Hardage, B. A. (editor), 1987, Seismic Stratigraphy – (Handbook of geophysical exploration.
Seismic Exploration; v. 9): Amsterdam, Elsevier, 432 p.

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