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2012 Beaufort Sea Seismic Acquisitions Program

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ABSTRACT

As exploration pushes further into the Frontier areas, challenges escalate dramatically. Remote locations, lack of infrastructure and harsh weather are a few of the issues that must be recognized and addressed before embarking on an exploration project.

In the summer of 2012, Chevron Canada Resources acquired 3700 square kilometers of exploration 3D on EL 460 in the Canadian Beaufort Sea. Years of planning and preparation culminated in the most successful offshore seismic exploration effort ever undertaken in the Canadian arctic. A large, high resolution data set was acquired in a remote location in a very constricted time window. No safety incidents occurred and there was negligible impact on the environment.

Some of the challenges that needed to be addressed during the planning include;

- Very short time frames
- Contracting and Supply Chain Management
- Northern Benefits, including local jobs and contracts
- Environmental Impacts
- Community Consultation
- Marine Mammals and MMOs
- Crew Change
- Emergency Response, Search and Rescue
- Northern logistics; food, fuel,
- Weather
- Working on the edge of the polar ice pack; Ice Forecasting, avoidance and mitigation, Rutter ice radar system
- Geophysical Requirements; mapping, modeling, strike vs dip acquisition, mitigations, multi azimuth
- Access and egress of the Beaufort Sea. Point Barrow, North West Passage
- Start up and Port Call

The results speak for themselves; 3700 sq km of high resolution, multi azimuth 3D seismic data without a single safety or environmental incident. In addition, some jobs and contracts were awarded locally to northern and aboriginal companies. Much of the success can be attributed to planning, an Incident Free Operations Roadmap, scenario evaluation and mitigation alternatives.

This award winning seismic program was described by the Canadian Association of Petroleum Producers (CAPP) as being "best in class in terms of health and safety performance."

SPEAKER BIOGRAPHY

Kevin Williams was born and raised in Montreal, Quebec, he has a degree in Mining Engineering and a Masters Degree in Geophysics, both from McGill University. Always a keen traveler and explorer, Kevin's student jobs included Uranium exploration in northern Saskatchewan, a summer in the South African gold mines, and a stint in the Alberta oil patch. Intrigued by the oil industry and the Canadian Rockies, he moved to Calgary in 1984.

Kevin has been employed by Chevron for almost 30 years. With much time exploring in the Canadian Frontiers (Ft Good Hope, Ft Liard, Offshore Newfoundland & Nova Scotia, Mackenzie Delta and Beaufort Sea), he has also worked exploration projects in the Congo, Papua New Guinea, and the Amazon.