HORIZON
EXPLORATION
LIMITED

MV LABRADOR HORIZON

Rebuilt in 1998 for six streamer operation, this vessel is equipped with the latest generation seismic installation configured to deliver reliable high quality 3D in the most demanding offshore environments around the world.

Featuring spacious, highly automated streamer and source handling decks, a state-of-the-art 24-bit seismic recording system and sophisticated inwater positioning, Labrador Horizon deploys seismic acquisition technology second to none.

HORIZON
EXPLORATION LIMITED

Managing to make $ense of your exploration and acquisition investment.

HORIZON EXPLORATION LIMITED

RECORDING SYSTEM

- Input/Output Inc MSX-24 bit recording system, capability 2000 plus channels and 3590 cartridge recording.
- Graphical user interface for control and QC of MSX-24 performance.
- "Data snooping" systems monitor the high channel count system in real-time and notifies operator of problem areas.
- GPS time stamping of internal and external events for subsequent analysis.

STREAMER SYSTEM

- Input/Output Inc reduced diameter fibre optic streamers.
- Up to six 4500m streamers (other configurations available).
- Low noise streamer design with 12.5m group interval.

SEISMIC SOURCE

- High output Bolt long life gun arrays.
- Horizon ISC II source controller for synchronisation and monitoring.
- Hamworthy and LMF air compressors (50% extra capacity) 2000 psi.

NAVIGATION SYSTEMS

- Fully integrated "SPECTRA" marine navigation system P2/91 and P2/94 raw data and P1/90 files recorded.
- All available spread positioning information (dual DGPS, acoustics, compasses, Lasertrak, etc.) used for real-time steering and coverage displays.
- Extensive real-time and end of line QC analysis available via "SPECTRA".

VESSEL DETAILS (formerly Simon Labrador)

GRT	3375
Length	84.4m
Beam	16.8m
Cruising Speed	13 knots
Certified Helideck	
Accommodation	43

The Labrador Horizon has two highly automated handling decks for safe and rapid deployment of overside equipment utilising Odim AS systems. Various array configurations combine single or dual source arrays with up to six streamers. Seismic recording, source control, seismic navigation and optional onboard seismic processing facilities are integrated within a single control room.

A fully integrated network solution (P1/90) is derived from all available positioning sensors (DGPS, rGPS, Lasertrak, compasses, acoustics, gyro, etc.) using the Concept Systems' SPECTRA. This is used by the real-time system (Concept Systems' REFLEX) for coverage estimation.

Seismic source control, synchronisation and monitoring are performed by the Horizon ISC II (integrated source controller). The ISC configures source arrays and monitors timing performance via Bolt sensors. Source array options use Bolt Long Life guns in several size combinations for optimum frequency content at various output levels.

The reduced diameter Input/Output streamer design features overlapping centre weighted hydrophone groups for noise suppression and a rugged composite construction streamer skin. The streamer modules use a 24 bit A/D converter with an instantaneous dynamic range of greater than 114 dB for increased fidelity and reliability is enhanced by low power consumption and fibre optic data transmission.

The Input/Output Inc MSX marine recorder is designed not only to configure and control high channel count systems, but utilises "data snooping" techniques and a graphical operator interface to identify problems in real-time. Noisy, weak, spiking or dead traces are flagged for operator attention, as well as being noted in the automatic observer's log. The system also has an extensive range of diagnostic tools for monitoring streamer, module and recorder performance.

Additional seismic recording quality control is provided through the use of dual recording, providing a second tape for security purposes as well as material for seismic processing system based confirmation of data integrity. ProMAX systems are used for conventional 2D type quality control with additional system options available for low fold 3D migrated cube and full onboard 2D or 3D processing as required.

Processing of navigation data is normally carried out ashore after data transmission via a 64 Kb satellite data link. Processed data is normally returned to the vessel with a 48 hour turnaround.

HORIZON EXPLORATION LIMITED

Horizon Exploration Ltd
Horizon House, 1 Suffolk Way
Sevenoaks, Kent TN13 1YL, UK
Tel: +44 (0)1732 741142
Fax:+44 (0)1732 742977
E:Mail: Urgent@EagleGeo.co.uk
Website: www.EagleGeo.co.uk

Eagle Geophysical, Inc
50 Briar Hollow Lane, Sixth Floor West
Houston, Texas 77027, USA
Tel: +1 713 881 2800
Fax: +1 713 355 3979