Oil and Gas

The provincial oil and gas industry grew rapidly over the past decade and now accounts for approximately 35% of the province’s nominal GDP and 2% of provincial employment. Total cumulative oil production to the end of 2007, from the province’s three offshore fields, was 867 million barrels of light sweet crude with an estimated gross value of $46 billion.

Oil production totalled 134.5 million barrels last year, representing an increase of 21.3% over the 2006 level. Production increases were recorded at Terra Nova and White Rose while Hibernia experienced a decline. The value

Gross Domestic Product
Oil & Gas Extraction and Other Industries

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<th>Year</th>
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Note: Oil and Gas Extraction includes services to mining and oil and gas industries. Source: Statistics Canada; Department of Finance

2 The contribution to GDP is much greater than to employment because of the high capital:labour ratio in the industry.
of oil production increased by 26.6% in 2007 to $10.3 billion, boosted by increased production levels and higher crude oil prices. Oil prices remain high despite recent signs of a serious slowdown in the U.S. economy. The price of Brent crude averaged US$103.64 per barrel in March 2008, nearly double its January 2007 average of US$53.68 per barrel.

### Brent Crude Oil Prices

![Brent Crude Oil Prices Graph]

Source: U.S. Energy Information Administration; Department of Finance

### Hibernia

Hibernia production totalled 49.2 million barrels in 2007, a decline of 24.4% from its 2006 level. Damage to one of the platform’s main power generators early in the year together with water and gas handling limitations on the platform constrained production in 2007.

While the Hibernia oil production platform has two drilling towers, the facility decreased operations to a single drilling crew resulting in the layoff of approximately 50 workers on March 4, 2008. The layoffs occurred because the west drill completed drilling its 32 planned slots. Both rigs will be maintained in an “operational ready” condition in order to conduct drilling, well re-entry and slot reclamation operations in both well bays. The layoffs will not affect oil production rates.

Development of the southern area of the Hibernia reservoir (i.e., Hibernia South)—estimated to contain 223 million barrels of recoverable oil—is anticipated once a Development Plan Amendment application is submitted and, regulatory and government approvals are obtained. Among the additional information required by the province is an analysis of how Hibernia Management & Development Company Ltd. plans to manage the platform’s current drilling slot and processing limitations as well as assessments of other possible modes of development for the field.
When Hibernia development was initially approved in 1986, the licence-holders estimated the field contained 522 million barrels of recoverable oil. Since then, estimates have increased significantly. The Canada-Newfoundland and Labrador Offshore Petroleum Board’s (C-NLOPB) current estimate of Hibernia’s recoverable reserves is 1,244 million barrels. Cumulative production at Hibernia, from first oil in November 1997 to the end of 2007, was 570 million barrels—leaving approximately 674 million barrels of reserves yet to be extracted (see the table on page 21).

Terra Nova

The *Terra Nova FPSO* produced all year in 2007 after being out of service for a six-month period in 2006 to undergo a major retrofit. As a result, production increased from 13.7 million barrels in 2006 to 42.4 million barrels in 2007.

In December 2006, an offshore inspection on the FPSO revealed that a bearing in the turret’s water injection swivel was damaged. Temporary repairs have allowed production to continue and have proven to be robust. A more permanent solution will require the procurement and installation of a replacement swivel—including local fabrication of a turret equipment module and maintenance platform. Replacement of the swivel, which has not yet been scheduled, will require up to 16 weeks of vessel downtime.

The C-NLOPB’s current estimate of the Terra Nova field’s recoverable reserves is 354 million barrels. Cumulative production at Terra Nova, from first oil in January 2002 to the end of 2007, was 220 million barrels—leaving approximately 134 million barrels yet to be extracted.
**White Rose**

White Rose production totalled 42.8 million barrels in 2007, an increase of 33.6% over its 2006 level. This increase was due to the completion of additional producing wells and regulatory approval to increase the facility maximum daily rate to 140,000 barrels per day and the annual oil production rate to 50 million barrels.

Husky Energy completed its planned 2008 maintenance turnaround for the White Rose production vessel, the *SeaRose FPSO*, on February 4. The 13-day turnaround, which was originally scheduled for August, was moved forward as a result of sediment buildup in the vessel’s low pressure separator. All work, including clean-out of sediment buildup—which had been curtailing production by approximately 30%—was successfully executed.

**Schematic of the White Rose Development**

![Schematic of the White Rose Development](source: Husky Energy)

The successful exploration and delineation program around the White Rose field has led to the identification of a number of potential satellite tieback developments—North Amethyst, South White Rose Extension and West White Rose Extension. North Amethyst will be the first satellite field to be developed—government approved the development plan for North Amethyst on April 2, 2008. Husky completed front-end engineering and a glory hole to accommodate the sub-sea facilities for this field in 2007 and plans to commence development drilling in mid-2008. Regulatory approval was obtained for the development of the South White Rose Extension in September 2007. Husky continues to evaluate the results of delineation drilling conducted in 2007 for West White Rose. The province, through its Energy Corporation, has a 5% equity stake in the development of the three White Rose satellite fields. Husky estimates that these fields contain 214 million barrels of recoverable oil.
In January 2008, Husky contracted the semi-submersible drilling unit *GSF Grand Banks* for a period of three years for ongoing operations in the White Rose area and for continued exploration and delineation drilling off Newfoundland and Labrador. The agreement is valued at approximately $380 million and has provisions for two additional one-year contract extensions.

In March 2008, Husky and Petro-Canada secured a rig sharing agreement with StatoilHydro that will bring the semi-submersible drilling unit *Henry Goodrich* to the Newfoundland and Labrador offshore area for a period of 24 to 30 months, beginning in the summer of 2008. Offshore drilling rigs capable of operating in harsh environments continue to be in high demand worldwide. Securing these drill rigs will expedite the next phase of the White Rose development and bring the North Amethyst satellite field into production by late 2009 or early 2010.

The current combined estimate of the White Rose and North Amethyst fields’ recoverable reserves is 457 million barrels. Cumulative production at White Rose, from first oil in November 2005 up to the end of 2007 was 77 million barrels—leaving approximately 380 million barrels yet to be extracted.
Hebron
On August 22, 2007, the province announced that it had reached a Memorandum of Understanding with the Hebron project proponents to develop the Hebron-Ben Nevis (Hebron) oil field complex. The field complex is estimated to contain approximately 731 million barrels of recoverable reserves and development costs are estimated to be between $7 and $11 billion over the life of the project. When the official agreements are signed, the province, through its Energy Corporation, will take a 4.9% equity stake in the project.

Exploration Highlights

Offshore
An average of 2-3 wells per year are expected over the next five years depending on results of seismic interpretations, rig availability, drilling success rates and oil and gas prices.

Exploratory Drilling
» Drilling of the Great Barasway F-66 exploratory well in the Orphan Basin (see Offshore Basins map) was completed in April 2007—results are subject to a 2-year confidentially period. The Orphan Basin partners (Chevron, ExxonMobil, Imperial Oil, and Shell Canada) remain committed to the area and plan to drill another exploration well in the deep water basin in 2009.
» Husky and StatoilHydro will partner on the Mizzen exploration well on Exploration Licence EL 1049 in the Flemish Pass Basin. The Mizzen well is expected to be drilled with the Henry Goodrich later this year.
» ConocoPhillips and partners have identified potential drilling targets in the Laurentian Basin. Exploratory drilling could occur in 2009 subject to rig availability.

Delineation/Development
» Husky commenced its 2007 delineation drilling program by spudding the well Husky et al White Rose C-30 in order to confirm reserve estimates in the West White Rose Pool to the Northwest of the current White Rose development. Husky has indicated that the West White Rose Pool contains 50 to 200 million barrels of oil, with a most likely estimate of 120 million barrels.
» The Henry Goodrich drill rig is also scheduled to drill a production and a water injection well in the Terra Nova oil field in late 2008 or early 2009 to supplement production and increase oil recovery.

Seismic
» Husky, in conjunction with StatoilHydro, is proceeding with an offshore seismic acquisition program. It includes the acquisition of 2,500 square kilometres of 3D seismic over the White Rose field, the satellite development areas, Terra Nova and portions of five exploration licences in the Jeanne D’Arc Basin.
West Coast

- Through a farm-out agreement with Canadian Imperial Venture Corporation, Shoal Point Energy Inc. commenced drilling of the 2K-39 well from an onshore location on Shoal Point to an offshore target under Port au Port Bay (EL 1070) in early March.
- Through a farm-out agreement with Ptarmigan Resources, Houston-based Tekoil set conductor pipe at the onshore to offshore exploration well Glori E-67 on January 14, 2008. Pending rig availability and regulatory approvals, the company plans to drill to a target located offshore in EL1069.
- PDI Production Inc. plans to drill another sidetrack well in the Garden Hill area (Port au Port #1 ST#3).
- Vulcan Minerals Inc. recently received the processed results of its 2007 seismic program in the onshore Bay St. George basin in Western Newfoundland. The company, as part of its agreement to form a strategic joint venture with Investcan Energy Corporation, plans to drill a well on the Hurricane Deeps target in 2008 subject to financing and logistics. Four onshore exploration permits were extended into their secondary term by the filing of performance bonds. Companies involved included Deer Lake Oil and Gas Inc., Contact Exploration, Leprechaun Resources Ltd. and Vulcan Minerals Inc.

Land Sales

- The C-NLOPB issued two separate Calls for Bids in May 2007 comprising a total of 991,458 hectares.
  - One 51,780-hectare parcel in the Western Newfoundland and Labrador Offshore Region (NL07-1), which closed on November 30, 2007, received a successful work expenditure bid in excess of $1.5 million.
  - Four parcels totalling 939,678 hectares in the Labrador Offshore Region (NL07-2) will not close until August 1, 2008 to allow sufficient time to complete a Strategic Environmental Assessment (SEA) in the region. The draft SEA report was issued for public comment on March 25, 2008.