

# Mackenzie Gas Project

## 2006 Inuvik Petroleum Show



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Imperial Oil



ConocoPhillips



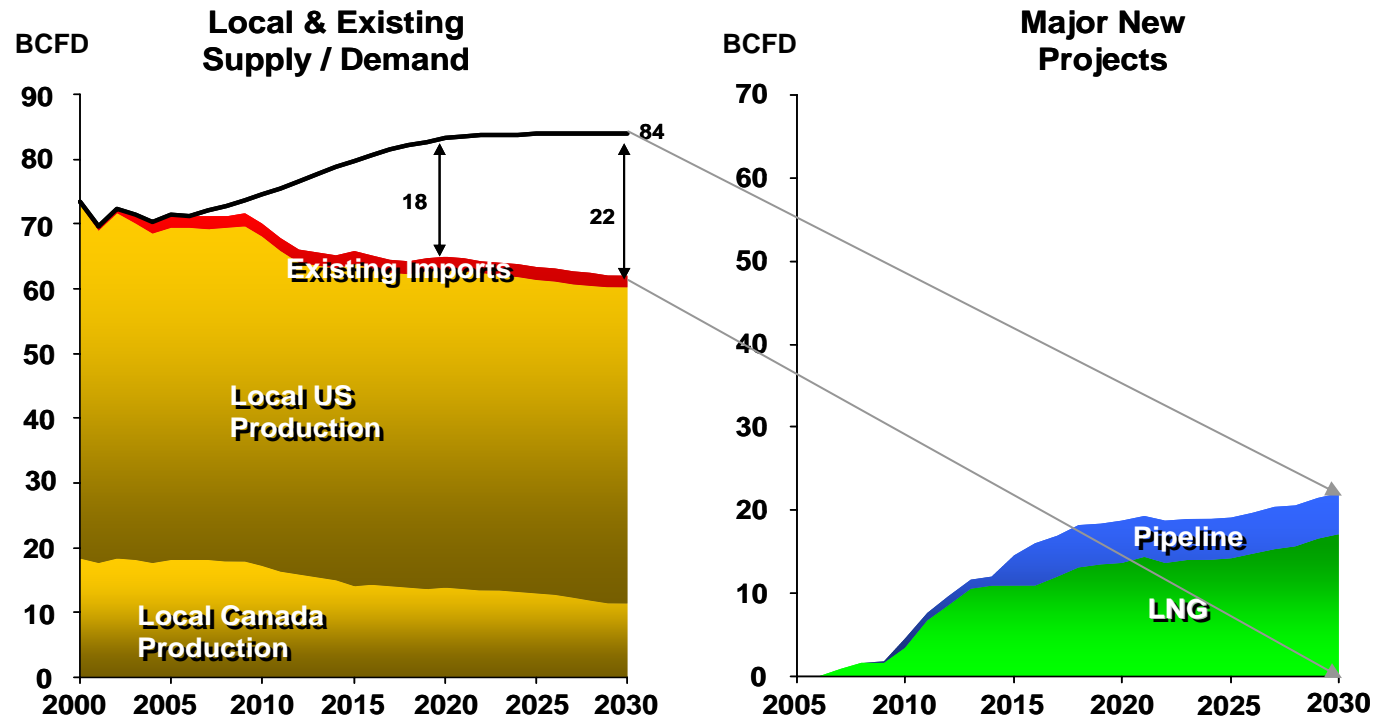
Shell Canada

ExxonMobil



**This presentation contains forward-looking information on future production, project start-ups and future capital spending. Actual results could differ materially due to changes in project schedules, operating performance, demand for oil and gas, commercial negotiations or other technical and economic factors.**

**Oil-equivalent barrels (OEB) may be misleading, particularly if used in isolation. An OEB conversion ratio of 6,000 cubic feet to one barrel is based on an energy-equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the well head.**



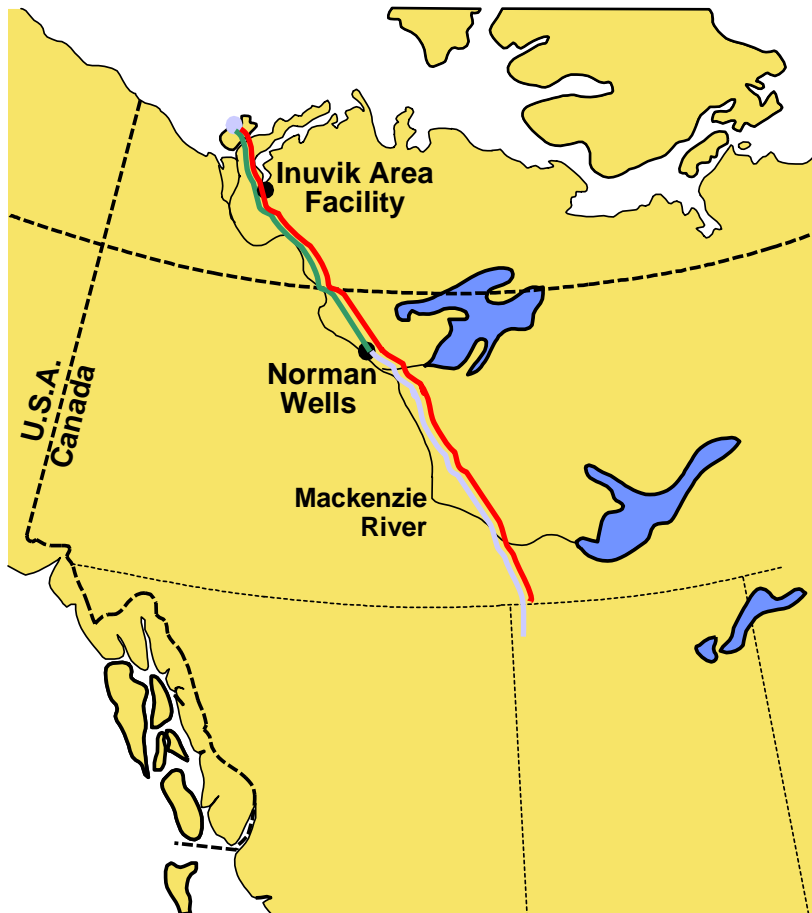
Source: ExxonMobil

## Additional 20 BCFD needed by 2030 to meet North American demand

- Growth significantly exceeds proposed Mackenzie and Alaska project volumes
- LNG imports expected to be dominant new supply

## Pipeline projects must be competitive with LNG imports

- 69 LNG terminals/expansion projects proposed; typically 1 - 2 BCFD



## Three onshore anchor fields

- Taglu, Parsons Lake and Niglintgak
- Sweet natural gas and natural gas liquids
- Well pads and gas conditioning facilities

## Mackenzie Gathering System

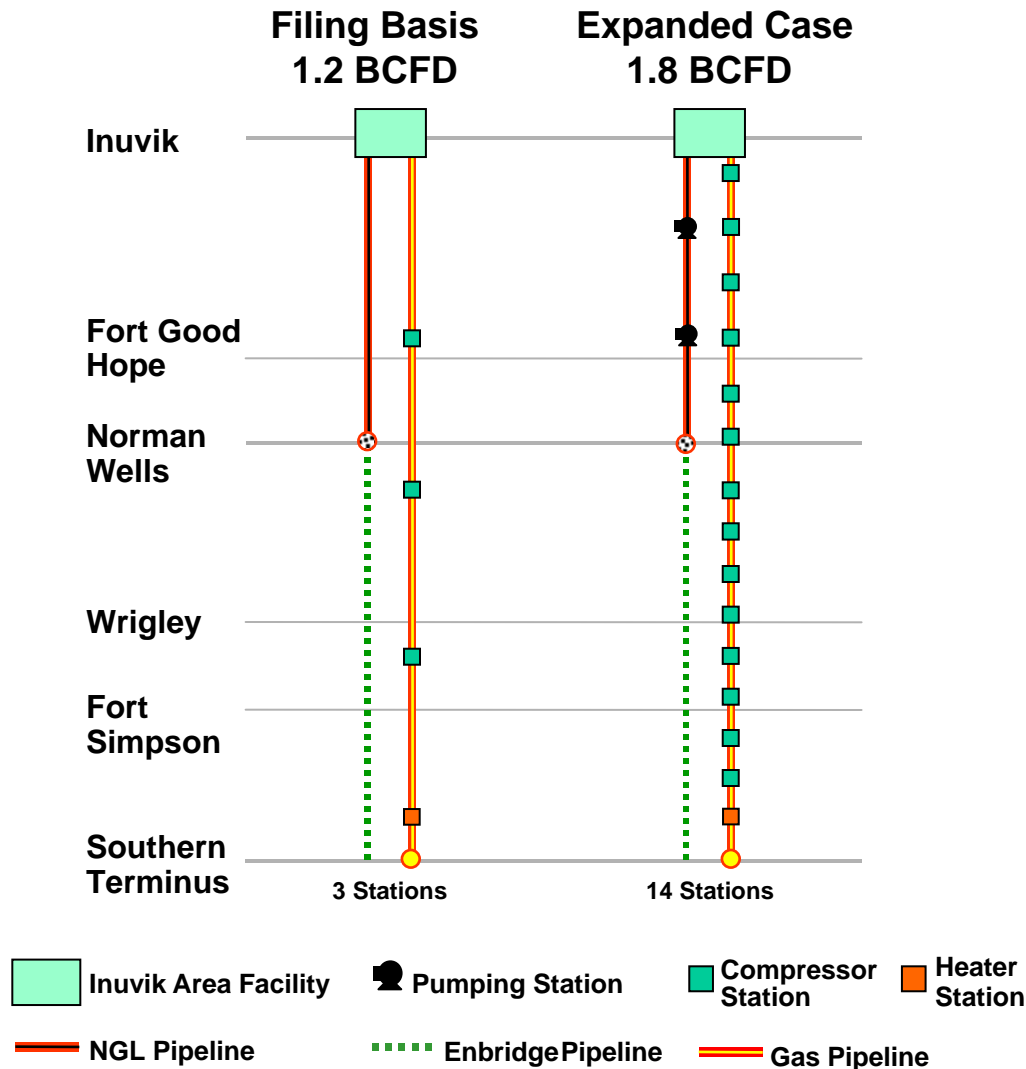
- 190 km buried gathering pipelines
- Processing facility near Inuvik

## Mackenzie Valley Pipeline

- 1,194 km buried gas pipeline
- Three compressor stations
- Heater station
- Terminates in Alberta
- 457 km buried NGL pipeline



## Mackenzie Valley Pipeline



**Pipeline system includes gas gathering as well as gas and NGL transmission**

**System sized based on 2002 non-binding expression of interest**

- Potential volumes identified from Mackenzie Delta, Mackenzie Valley and the Yukon
- Interest in ultimate expansion capacity ranged from 1.5 to 2 BCFD

**Transmission system capability includes flexibility to expand**

- Filing basis capacity of 1.2 BCFD with 3 compressor stations
  - 1.1 BCFD delivered after fuel
  - 25 KBD of NGL
- Expansion capability of about 1.8 BCFD possible with 14 stations



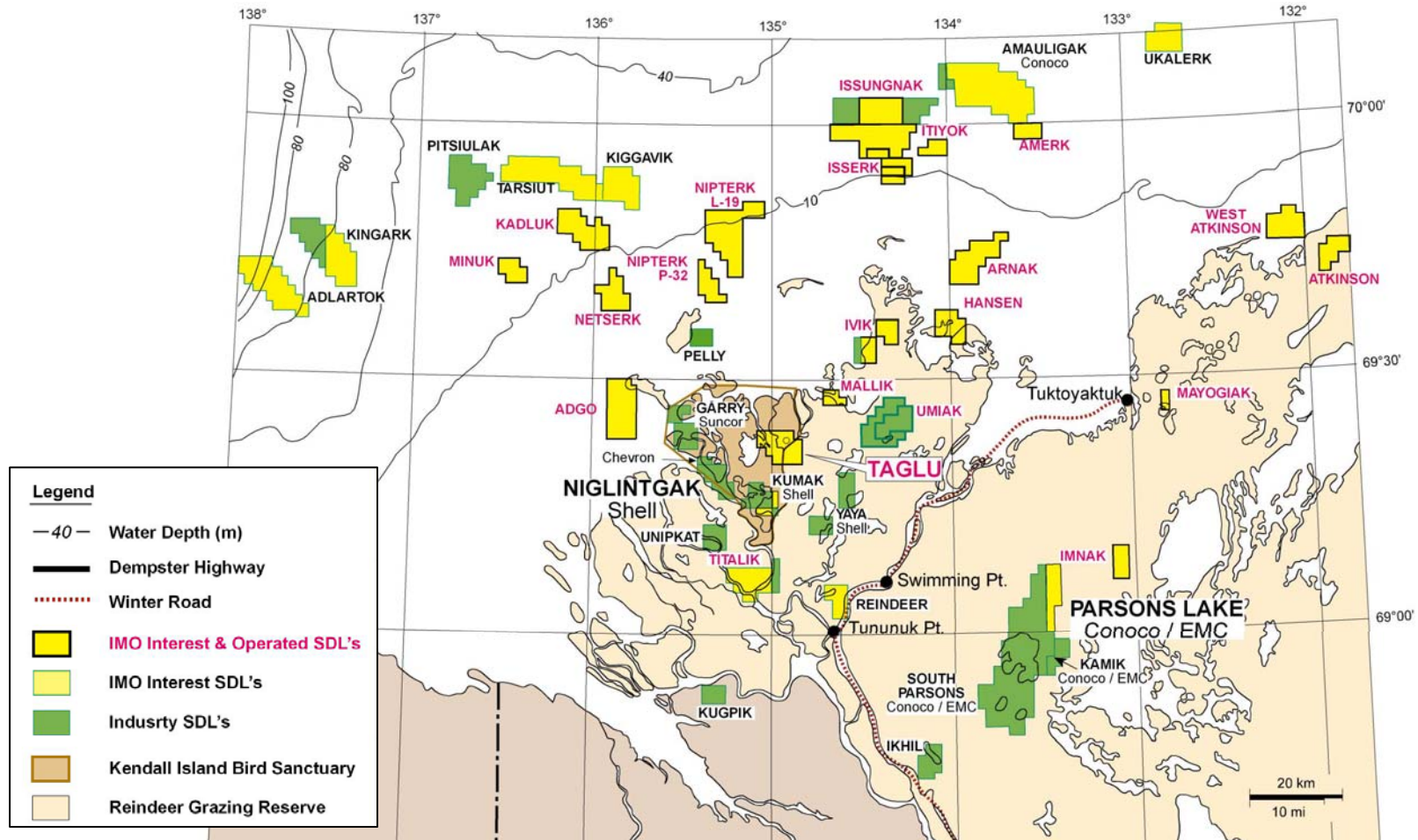
- **Long term stability of pipeline right-of-way**
  - Pipeline design considers predicted climate change over life of project
  - Watercourse crossings designed to protect fish and habitat
  - Regular monitoring to detect pipeline movement
- **Reduced project presence**
  - Limited number of facilities and compact layout
  - Construction plans optimized to limit pipeline installation duration to winter periods
- **Emission reduction**
  - High pipeline operating pressure yields very efficient transmission and reduced compressor fuel requirements
- **Wildlife protection**
  - Comprehensive environmental management plan with specific wildlife and habitat protection components
  - Plans incorporate the wisdom of Traditional Knowledge from First Nations



- **Pipeline Ownership – Project Definition Phase**
  - Producers' Group 66.6%
  - Aboriginal Pipeline Group 33.3%
  - Level of APG ownership determined by third party shipping commitments
  
- **APG ownership funded by borrowing**
  - TCPL loan for project definition phase costs
  - Loan repaid by APG from transportation revenues during operations
  - Backstop financing available from Producers for equity portion of APG's working interest
  
- **Gathering System**
  - Includes raw gas gathering lines from anchor fields, Inuvik area facility and NGL line from Inuvik to Norman Wells
  - Producer owned
  
- **Third Party Access**
  - Spare capacity is available on a fee for service basis
  - NEB regulated tolls on pipeline; negotiated tolls on gathering system using Alberta industry principles
  - Owners will expand capacity with sufficient firm requests for transportation service
  - Third parties can acquire ownership interest in gathering system



# Additional Discovered Arctic Resource



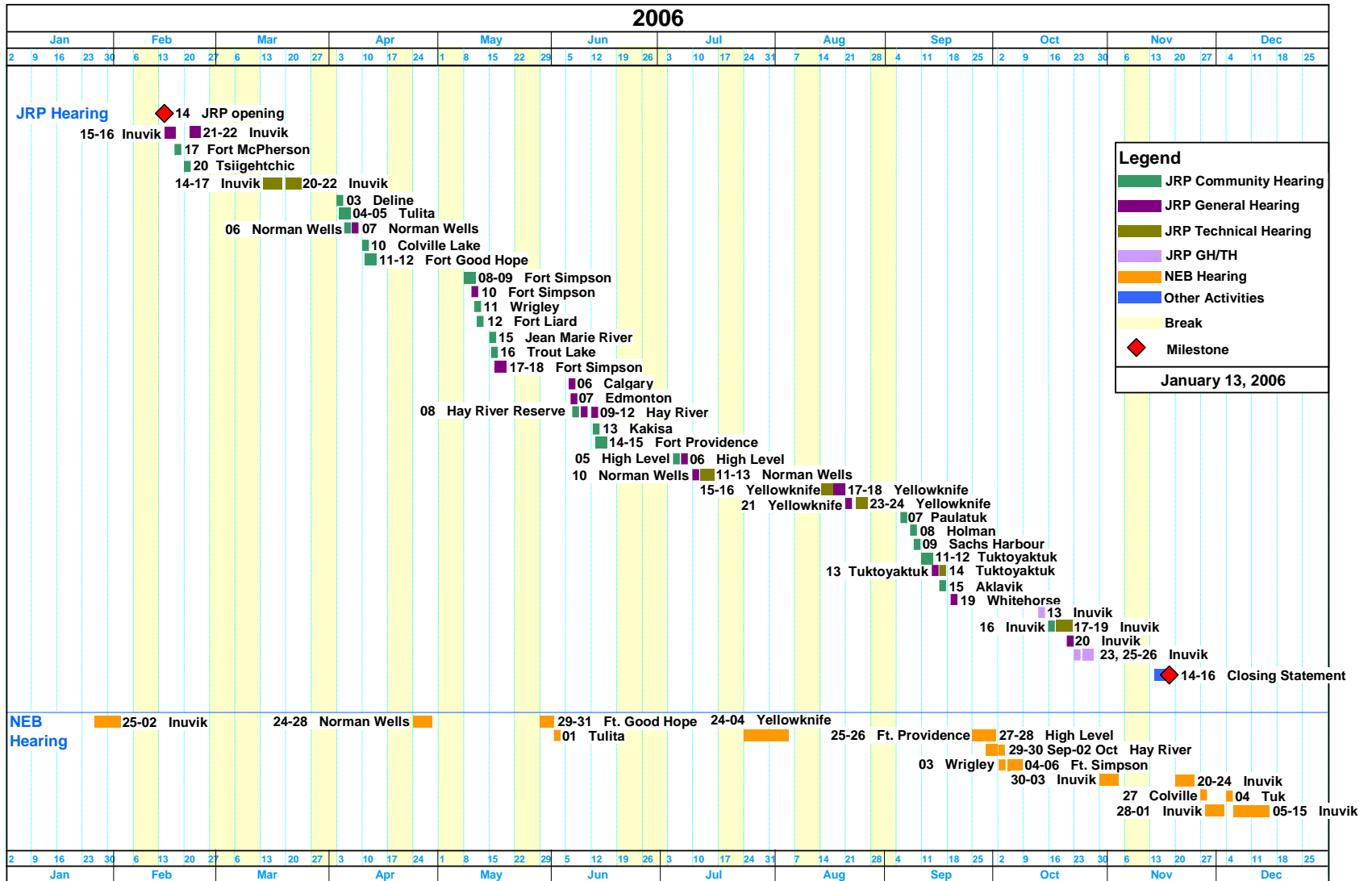
- Interest in ~1 million acres of arctic resource
- 44 significant discovery licenses (SDL) – 26 IOL-operated



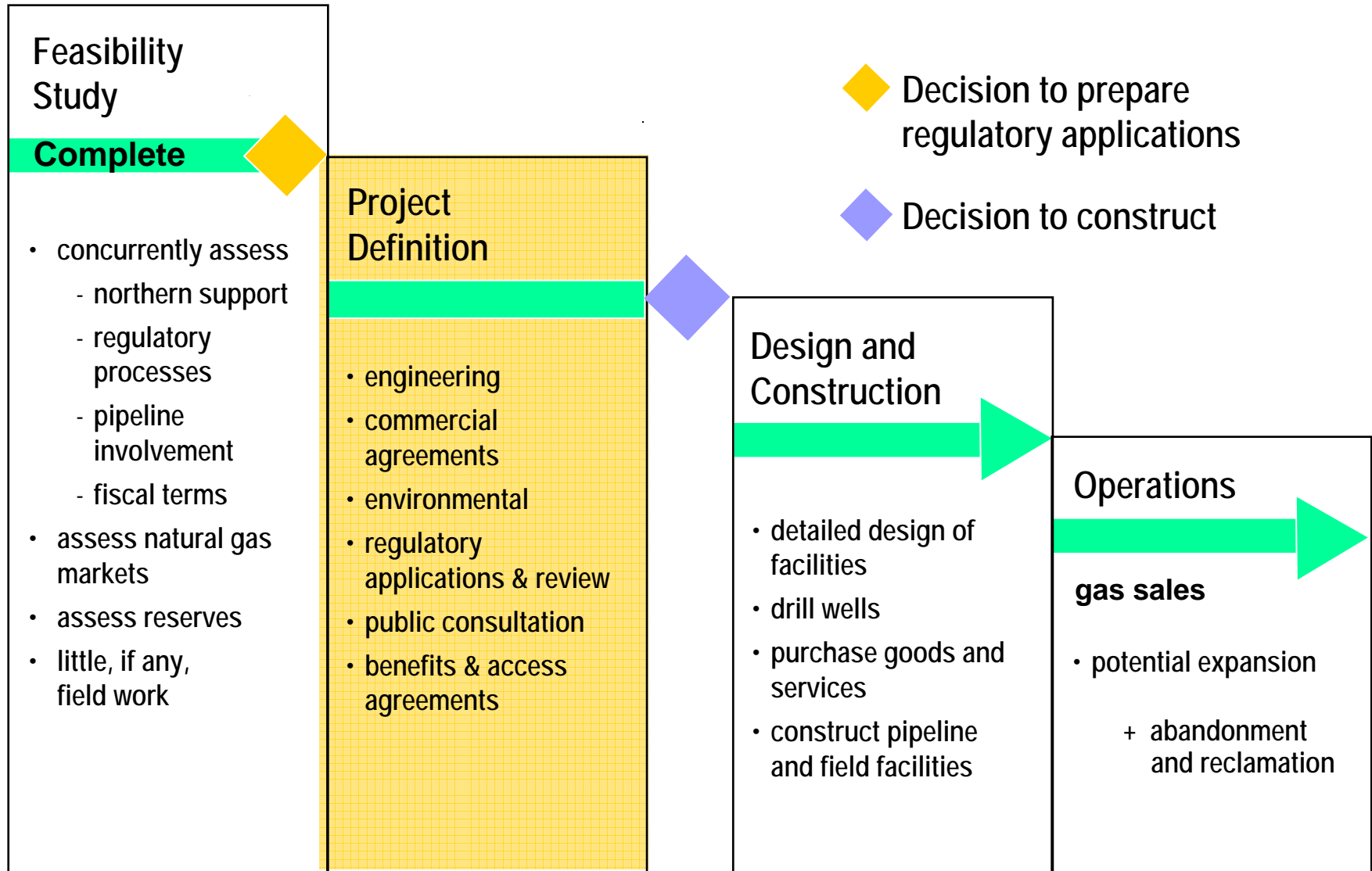
- **Project proponents**
  - 200 full-time staff, plus contractors
  - More than \$500 million spent
  - Extensive consultation - northern offices, 1,000+ meetings, website
  - Comprehensive regulatory filings – 30,000 pages of applications/responses
  - Negotiated unprecedented opportunity for Aboriginal ownership in pipeline
  
- **Aboriginal leaders**
  - Created the Aboriginal Pipeline Group
  - Invested significant time and effort to advance the project
  
- **Governments**
  - Developed June 2002 Cooperation Plan, regulatory agreements and JRP
  - Created structures for coordinating government effort - committees, pipeline offices, ministerial representatives
  - Provided significant funding, e.g., aboriginal organizations, regulatory agencies, training



- **Achieved 3 million work hours with no lost time incidents and two recordable injuries**
- **Federal government to provide \$500 million over 10 years for socio-economic impacts**
- **Socio-economic agreement scope proposed to GNWT**
- **Progress on Benefits and Access agreements**
  - Agreements in principle reached with 4 of 5 parties
  - Deh Cho land claim settlements tabled by Federal Government
- **'Comfort letters' on fiscal terms received from Governments**
  - Need for fiscal certainty acknowledged and fiscal terms under discussion
- **Nearing agreement with some third parties on pipeline use**
- **Hearings commenced January 25**



# Conceptual Project Timeline





- **Resolution of remaining benefits and access issues**
- **Agreement with governments on fiscal terms**
- **Socio-economic agreement with GNWT**
- **Timely completion of regulatory process**
- **Third party volume commitments**
- **Project cost and execution challenges**

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