
Mackenzie Valley Project

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Agenda

- Introduction
- Project Components
- Stakeholders
- Production
- North American Natural Gas
- Risks
- Current Status
- Summary

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Introduction

- Mackenzie Valley Pipeline
 - A partnership between oil companies and aboriginal groups
 - Potential to unlock 64 trillion cubic feet of natural gas
 - Initial project cancelled 25 years ago
 - Higher natural gas prices have given the project a second chance

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Project Components

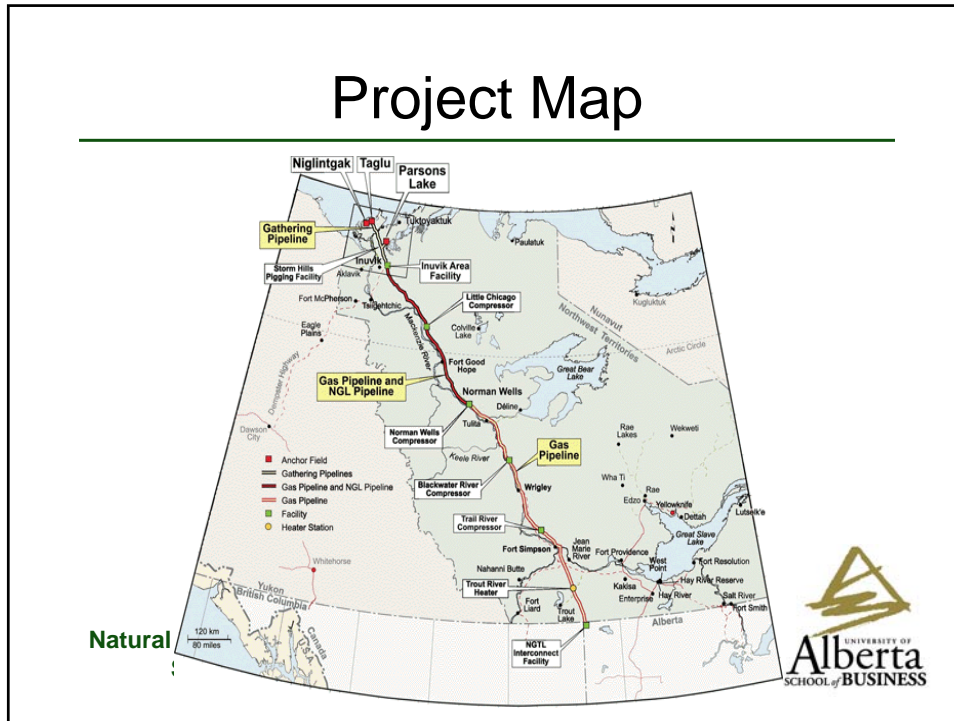
- Projected cost – At least \$7 Billion
- 1200 km pipeline
- 3 'anchor' fields
 - Taglu (owned by Imperial Oil)
 - Parsons Lake (owned by Conoco Phillips and ExxonMobil Canada)
 - Niglintgak (owned by Shell Canada)
- Gathering System at each field
- Removal of Natural Gas Liquids at Inuvik
- Tie into current natural gas network in Alberta

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Project Map



Stakeholders

- Oil Companies
 - Imperial Oil
 - Conoco Phillips
 - Shell Canada
 - ExxonMobil Canada
- Aboriginal Groups
 - Deh Cho
 - Sahtu
 - Gwich'in
 - Inuvialuit
 - Others
- Government
 - Federal Government
 - North West Territories Government

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Oil Companies

- Ownership stake in pipeline related to their initial gas production

Owner	Initial Stake
Aboriginal Pipeline Group	33.3%
Imperial Oil	33.3%
Conoco Phillips	16.7%
Shell Canada	11.3%
ExxonMobil Canada	5.3%

- Will have the opportunity exploit their natural gas reserves
- Potential to have additional gas discoveries

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Aboriginal Groups

- An initial 1/3 ownership stake in the pipeline through Aboriginal Pipeline Group
- 2600 workers at peak construction
 - At least 800 from NWT
 - 140 permanent NWT jobs
- Oil Companies will participate with government in training local workers
 - \$21M to be shared equally by producers and government

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Environmental Groups

- Boreal Forest Conservation Framework protects at least 50% of boreal forest in Canada's North
 - Only 5 of 16 distinct natural regions in Mackenzie Valley are protected
- Sierra Club of Canada concerned about fragmentation of boreal forests
- Habitats could be damaged

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Government

- Expected tax and royalty revenues of approximately \$87 billion over 45 year project life
- Increased employment and economic self sufficiency for Canada's North

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Production

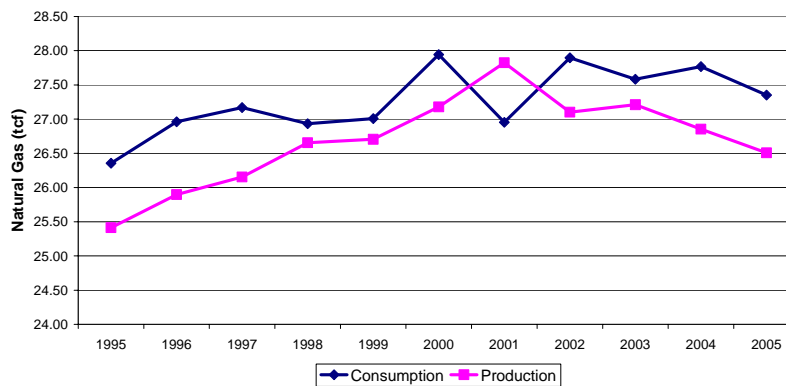
- Initial production of 800 million cubic feet per day
- Pipeline capacity of 1.2 billion cubic feet per day
- Potential Natural Gas reserves – 64 trillion cubic feet
 - 9 tcf found, 55 tcf to be discovered)
 - Current Canadian reserves listed at 56 tcf (end of 2005)

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North American Natural Gas

North America Natural Gas Consumption & Production



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North American Natural Gas

- North American Natural Gas Reserves (tcf)

	1985	1995	2004	2005
USA	191.05	163.15	192.46	192.46
Canada	98.17	68.16	56.15	56.15
North America	366.21	299.11	263.45	263.45

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Environmental Risks

- Destruction of boreal forest
- Damage bird and animal habitats
- Leaks/Explosions
- Sierra Club states this gas will go to increase development of energy intensive Oil Sands

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Social Risks

- Strains to infrastructure
- Industrial development conflicting with traditional lifestyle of aboriginals
- Potential lack of skilled workforce

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Legal Risks

- Regulatory delays continue to increase overall project cost
- Aboriginal Land and Water Boards
- Aboriginal Land Use Planning Board
- Mackenzie Valley Environmental Impact Review Board
- Regulatory Process expected to continue until mid-2008

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Current Status

- Two sets of public hearings
 - Engineering and Economics by NEB
 - Environmental and Social consequences by JRP
- Imperial Oil to reveal new cost estimate later this year (could be as high as \$10 Billion)
- Gas could begin to flow in 2011

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Summary

- Appears to be strong economic benefits for all stakeholders
- There are environmental issues that need to be addressed
- Should be demand for this additional natural gas

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- Thank You!
 - Questions?

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