

# **CERI 2008** Petrochemical Conference

Bill Langford June 9, 2008



# Introduction



WCSB Supply

- WCSB Demand
- WCSB Exports
- Alaska Gas and AGIA
- Mackenzie Delta Gas



# The WCSB Supply Outlook



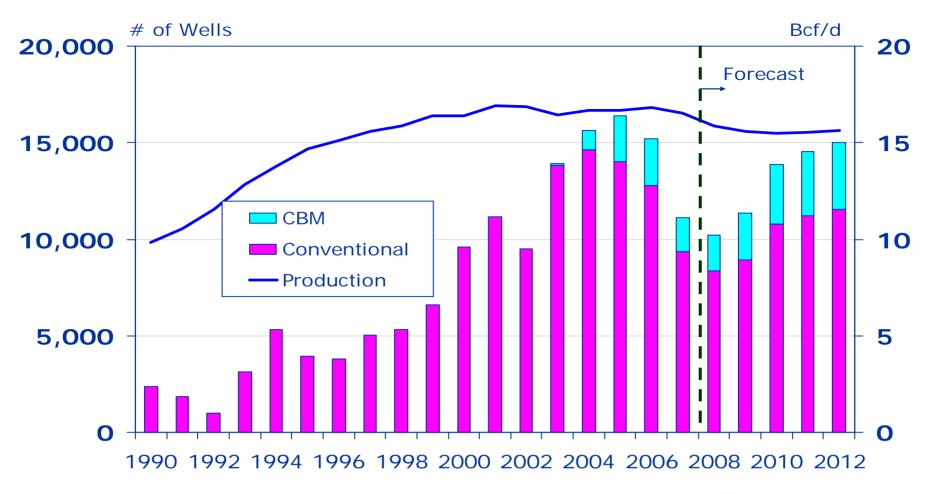
Short term impact of:

- Cost escalation
- Lower gas prices
- Appreciated Canadian currency
- Royalty regime change
- Re-deployment of Capital to oil sands, U.S. basins
- Income trust taxation



# WCSB Gas Wells Drilled / Production Forecast

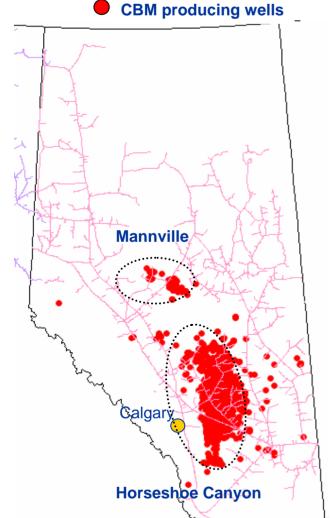


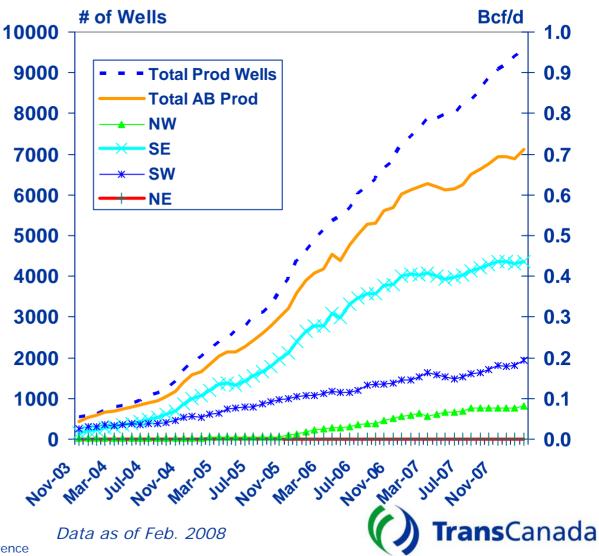




#### Alberta CBM Wells and Production

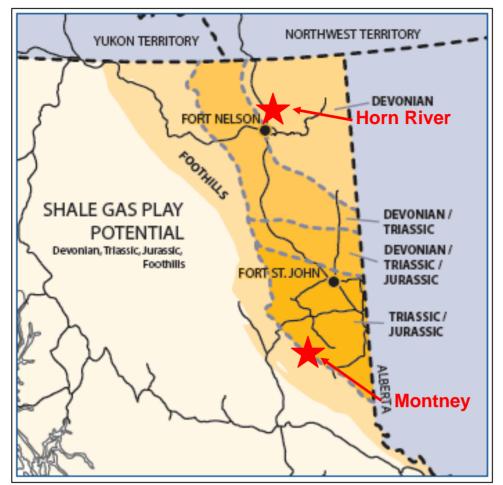






#### Shale Gas





- BC Devonian shale potential of over 500\* Tcf OGIP
- BC Montney shale potential of 80\* Tcf OGIP
- Similar in potential to the Barnett shale

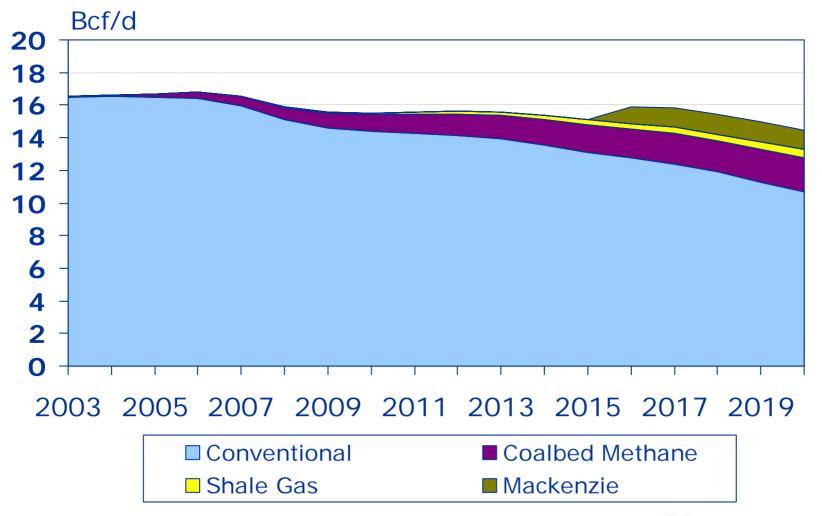
\*Recoverable reserves can be considerably less, about 10%



## WCSB Supply without Alaska

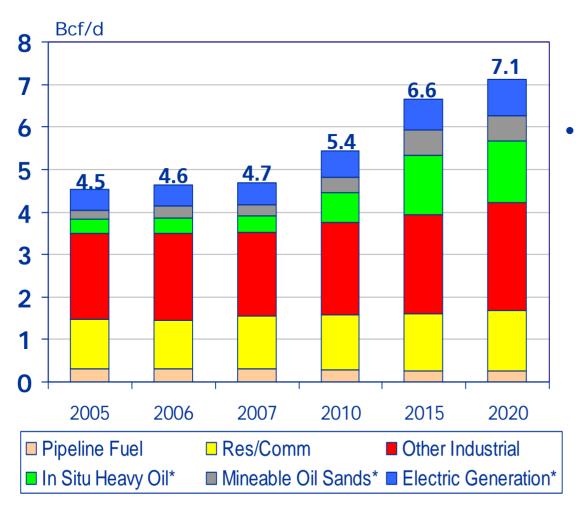


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#### Western Canada Gas Demand



 Western Canada demand is forecast to increase 1.9 Bcf/d from 2007-2015, led by Oil Sands and Electric Generation growth



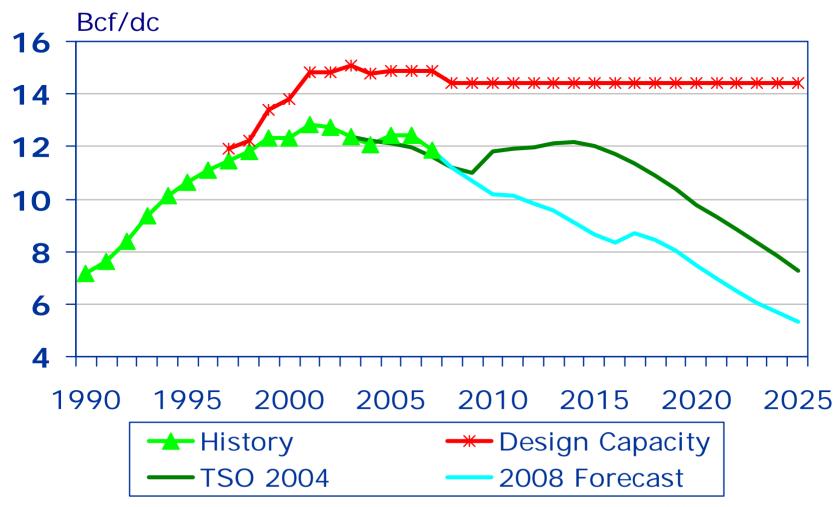
#### \*excluding cogen



#### Western Canadian Exports



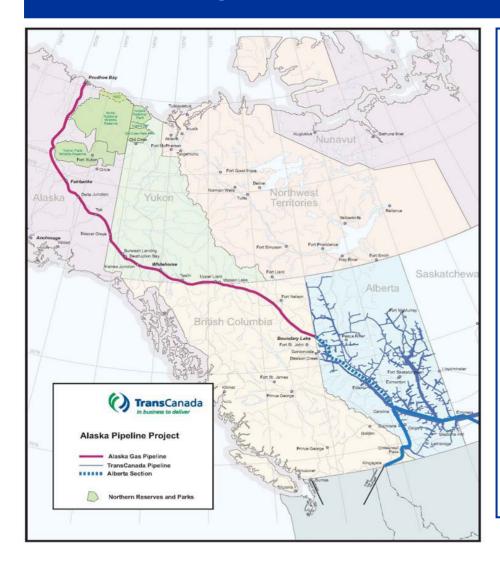
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#### Prudhoe Bay to Alberta Hub





- Alberta Hub is the most liquid market in North America
- TransCanada's Alberta System is the Alberta Hub
- Access to all North American markets coast-to-coast on TransCanada's existing pipelines
  - By 2017, spare takeaway capacity sufficient for full Alaska volumes
- One-third of Alaska pipeline in-service as Prebuild moving 3 Bcf/d



#### Alaska Gas Inducement Act (AGIA)



- State asked for proposals to bring North Slope gas to market
  - 20 conditions, including:
    - access for all gas explorers
    - commitment to expand if required
    - lowest possible tariffs
    - expeditious advancement of project
  - On May 22 the Governor announced that TransCanada's proposal has been recommended for the AGIA license



## Next Steps

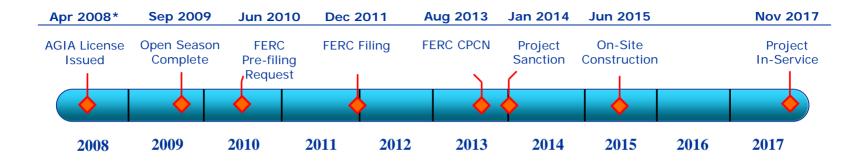


- Legislature review/approval commences June 3, 2008
- AGIA License issued
  - Target Q3 2008



#### **Current Project Schedule**





\* AGIA license assumed to be issued in April 2008



#### Prudhoe Bay Gas Composition

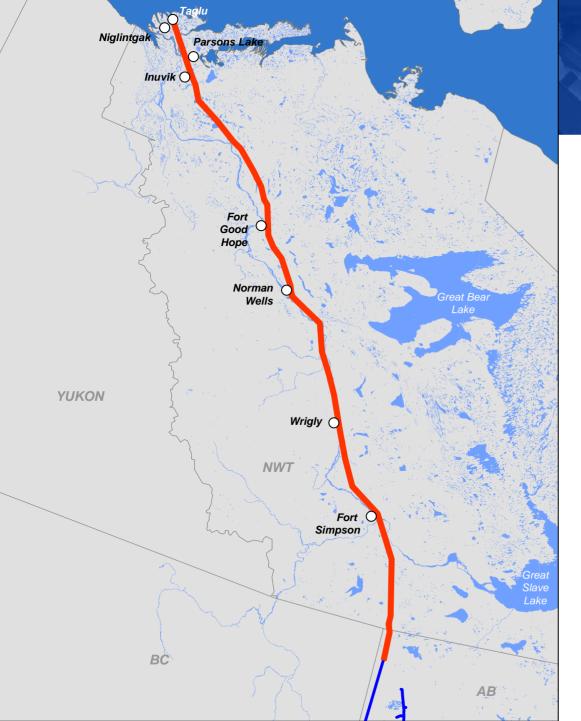


	Mol %	Liquids Recovery <sup>1,2</sup> (B/d)
C <sub>2</sub> – Ethane	5.8 – 7.1	124,000 – 152,000
C <sub>3</sub> – Propane	1.7 – 3.6	50,000 – 105,000
IC <sub>4</sub> – Isobutane	.13	3,400 – 10,300
NC₄ – N – Butane	.24	6,800 – 14,000
C <sub>5</sub> – Pentanes, Condensate	.1	3,900

<sup>1</sup> Based on 4.5 Bcf/d gas volume into pipe at Prudhoe Bay

<sup>2</sup> Assumes a 75% recovery rate for ethane; 100% for other NGL's





# Mackenzie Valley Pipeline





#### Project Facts

- Pipeline is 1,200 km in length. Gas processing plant to be located south of Inuvik, with a parallel liquids line to Norman Wells
- 1.2 Bcf/day throughput capacity
- Latest capital cost estimate (March/07), in 2006 dollars:

	(billions)
Gathering System	3.5
Pipeline	7.8
Upstream	<u>4.9</u>
Total	\$16.2

 Commencement of operations is no sooner than 2014, and remains conditional on progress on regulatory and fiscal matters



## Mackenzie Valley Gas Pipeline (Gas Composition)



	Mol Fraction (%)	Liquids in Gas Stream <sup>1,2</sup> (B/d)
C <sub>2</sub> – Ethane	3.55	16,854
C <sub>3</sub> – Propane	1.24	8,246
Butanes	.43	3,246

<sup>1</sup> Based on gas volume of 1.0 Bcf/d into processing plant

<sup>2</sup> Based on 75% recovery rate for ethane, 100% for  $C_3$ +

