



Heartland Upgrader

Alberta Royalty Review Submission

23 May 2007

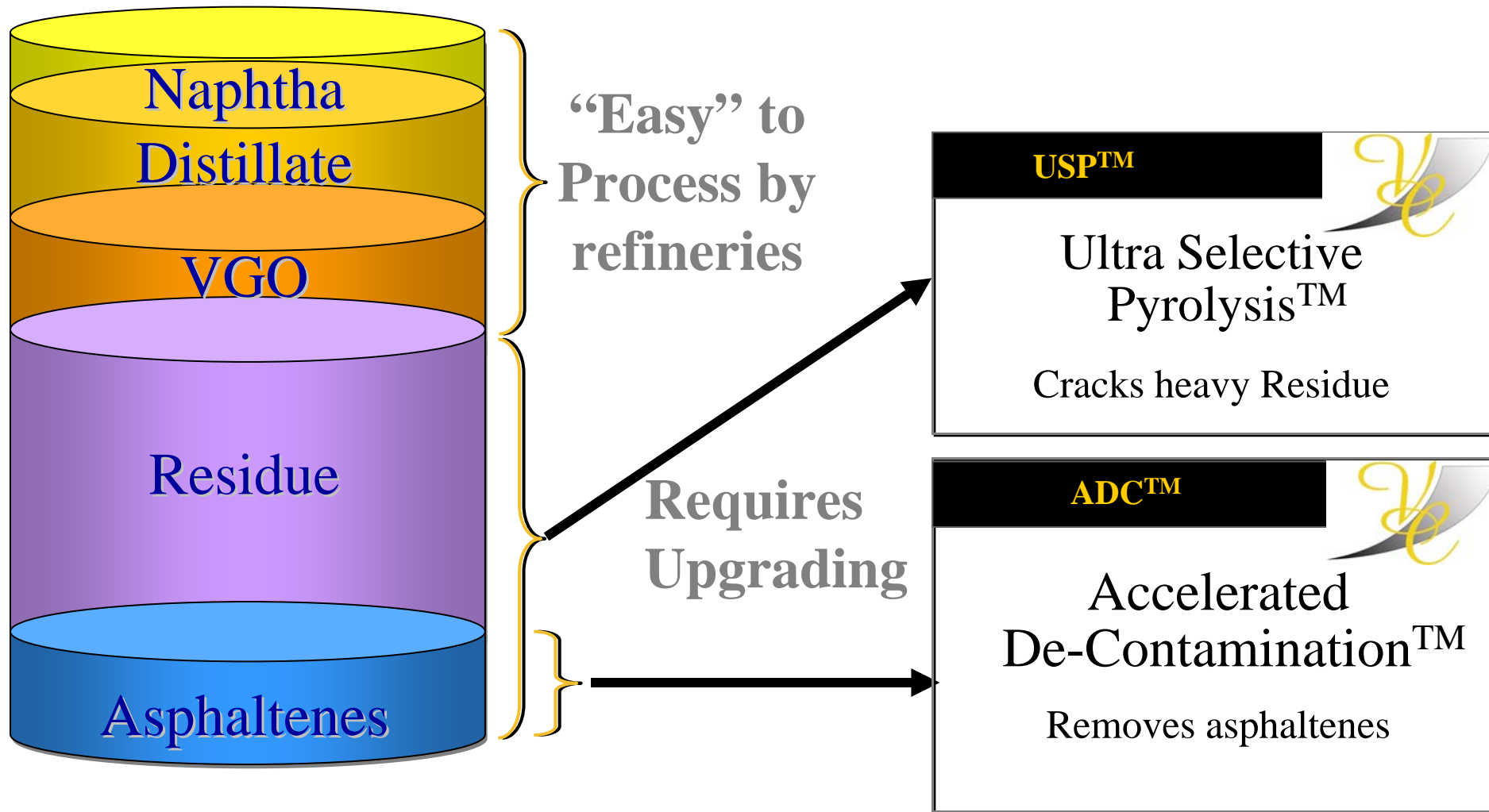
BA ENERGY INC.

A member of Value Creation Group

ADC™ & USP™ Technology

Meeting the Bitumen Challenge

Barrel of Bitumen



HARD TO PROCESS ASPHALTENES
& HEAVY RESIDUES

Heartland Upgrader Project

Heartland Upgrader:

- 260,000 BPD Bitumen Blend Merchant Upgrader
- Constructed in 3 phases plus debottlenecking
- Will commercialize VCI proprietary technology

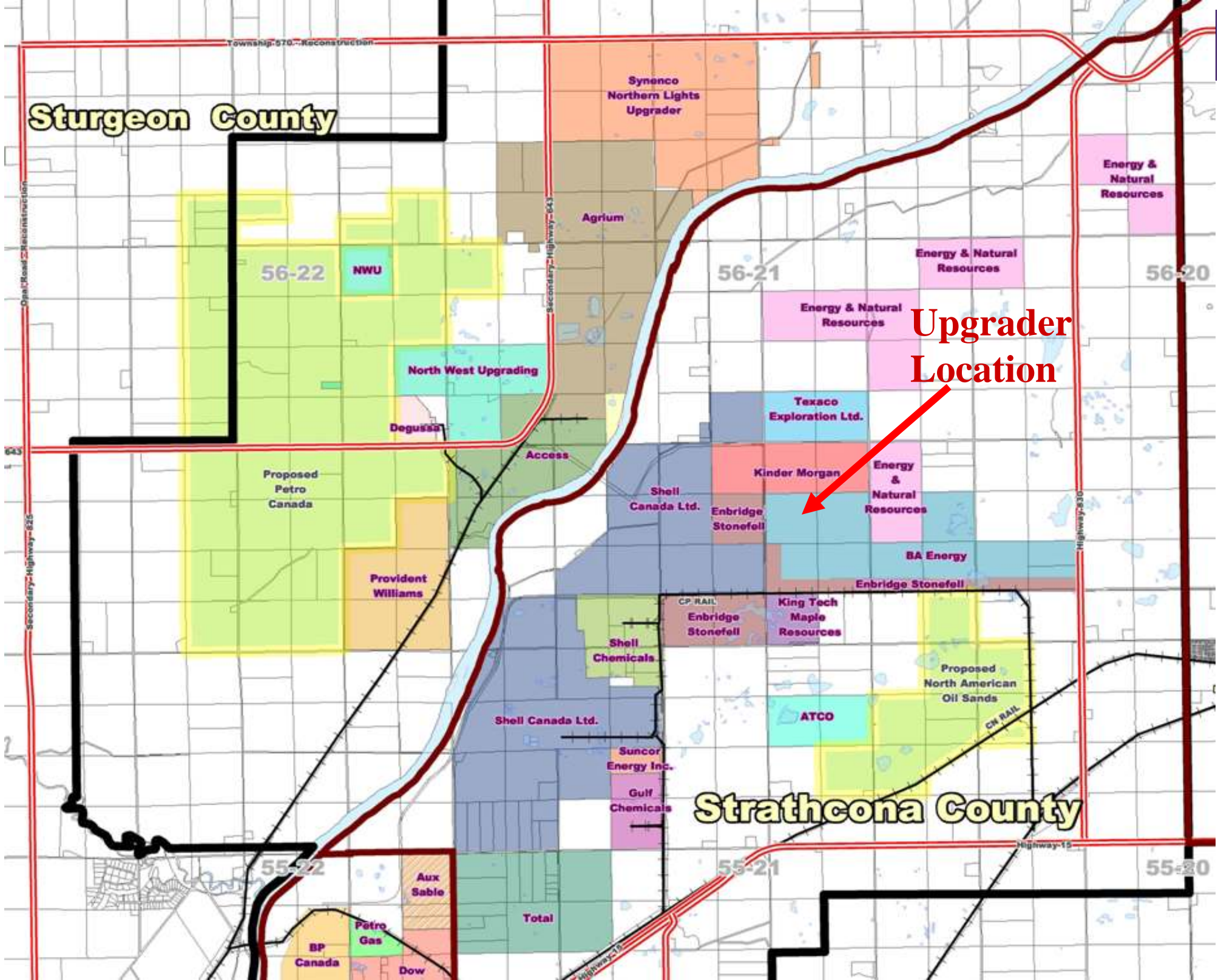
First Phase:

- 77,500 BPSD Bitumen Blend
- Capital Cost ~ \$1.1Billion CDN (4Q06\$)
- Operating Cost ~ \$3.00 CDN / Barrel
- Start-up late 2008

Subsequent Phases:

- Phase 2 planned for 2011 – 2012 completion
- Phase 3 planned for 2013 – 2014 completion

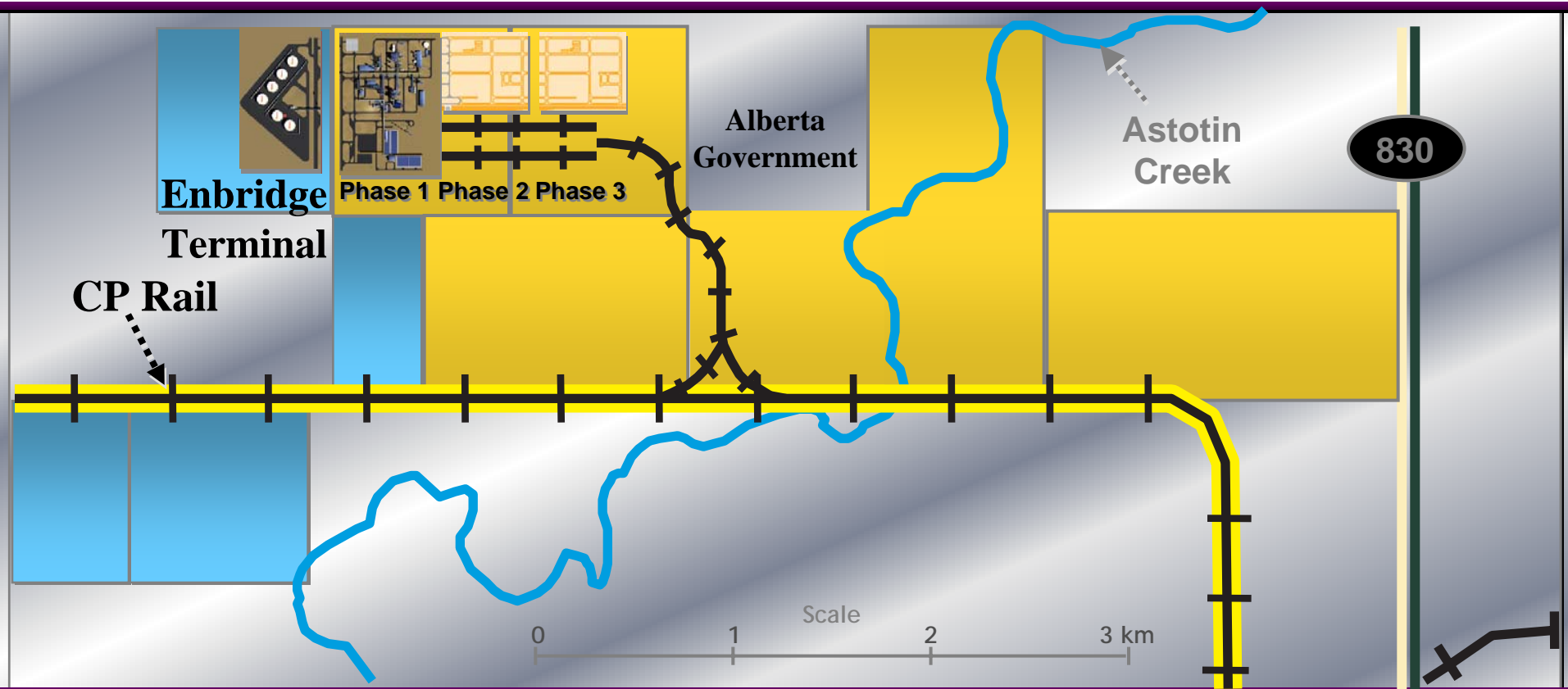
Sturgeon County



**Upgrader
Location**

Strathcona County

BA Energy Land & 3 Phase Upgrader for 260,000 bbl/d



Significant Growth Potential

- 3 phases of 77,500 bbl/d already AEUB approved
- Phases 2 & 3 completion targeted by 2011 & 2013
- Considerable land recently purchased for phases beyond 2 & 3

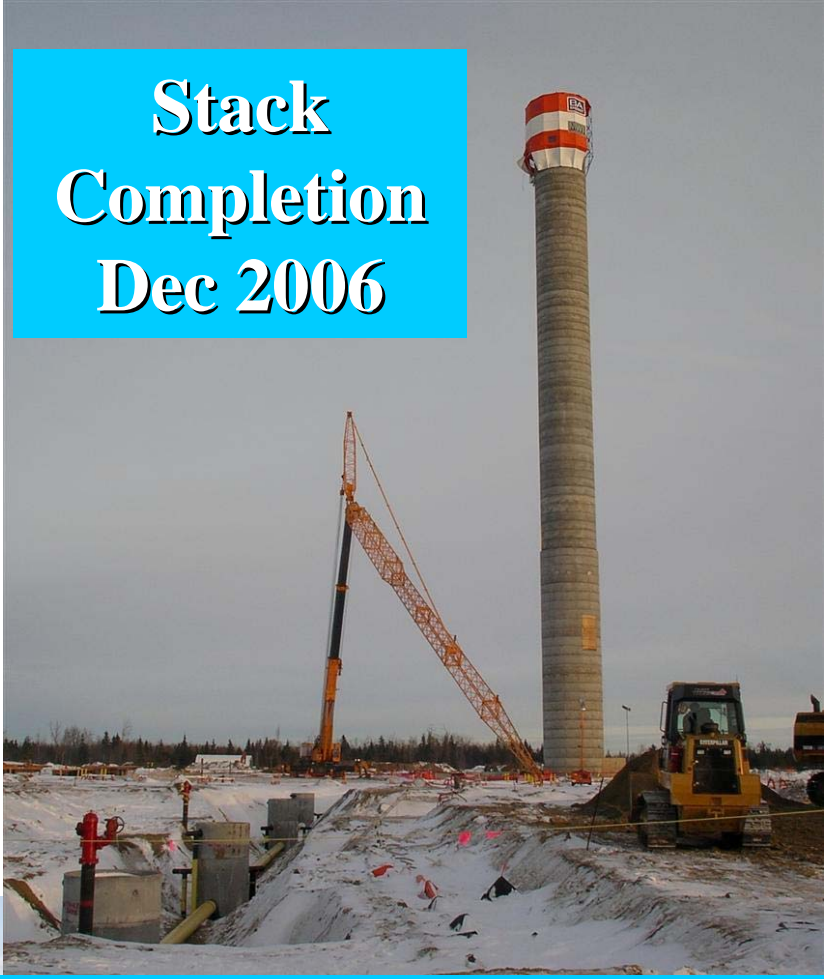
	BA Land
	Enbridge Land



Site Prior to Clearing



Deep Pipe Installation



**Stack
Completion
Dec 2006**



Enbridge Terminal April 2007

The Heartland Upgrader – Supporting Alberta’s value-added strategy...

- First new upgrader to locate in the area after formation of Alberta’s Industrial Heartland
- Pipeline alliance - Enbridge Stonefell Terminal reinforces the Heartland processing and distribution Hub
- Gas liquids recovery project with Aux Sable to develop synthetic gas liquids feedstock for local petrochemical operations

Oil sands face many economic challenges...

- Natural gas costs for SAGD recovery
- Recovery of resource from increasingly challenging geology
- Capital cost hurdles for upgrading
- Climate change

...the answer: Research - Develop - Invest

1996 fiscal terms have been ideally suited to oil sands development

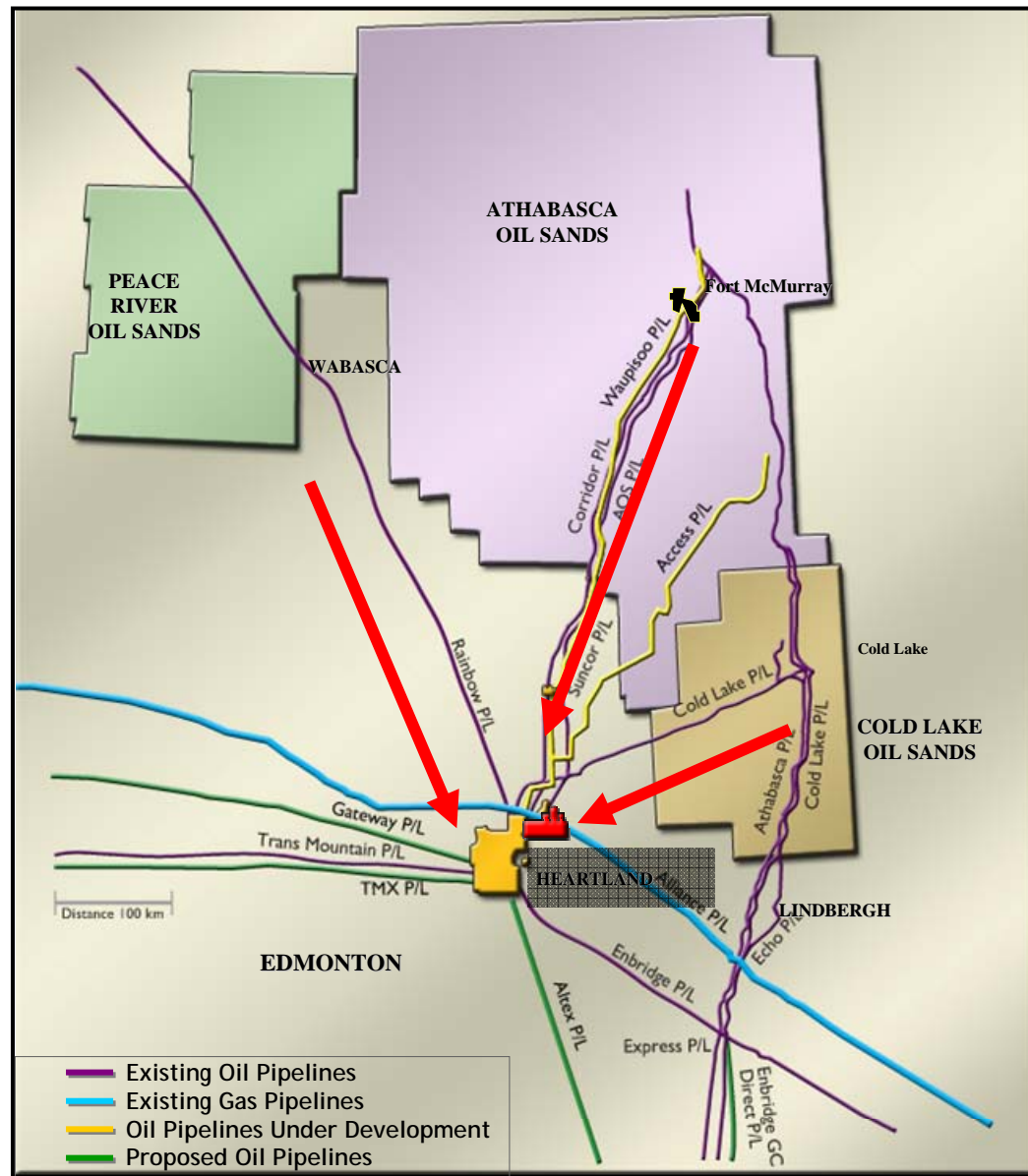
- Mitigate front-end risk of large projects
- Encourage pursuit of higher value
- Common objectives with Alberta (resource owner) and industry (resource developer)

Fiscal Concerns

- Recent federal announcement to phase out ACCA erodes “after-payout” structure
 - Detrimental to upstream and integrated upgrading projects
- Lack of common treatment of non-integrated merchant upgraders

Upgrading capacity ...the key to bitumen value

- Light product is cheaper to transport to market
- Relieves need for costly diluent
- Source of synthetic diluent to avoid diluent location premium



Recommendations to Alberta

- Retain the oil sands royalty structure
- Retain Alberta ACCA for oil sands
- Extend Alberta ACCA to merchant/ stand-alone upgraders
- Work to rescind federal phase out of ACCA and extend to merchant upgrading