



Wood River Refinery Expansion

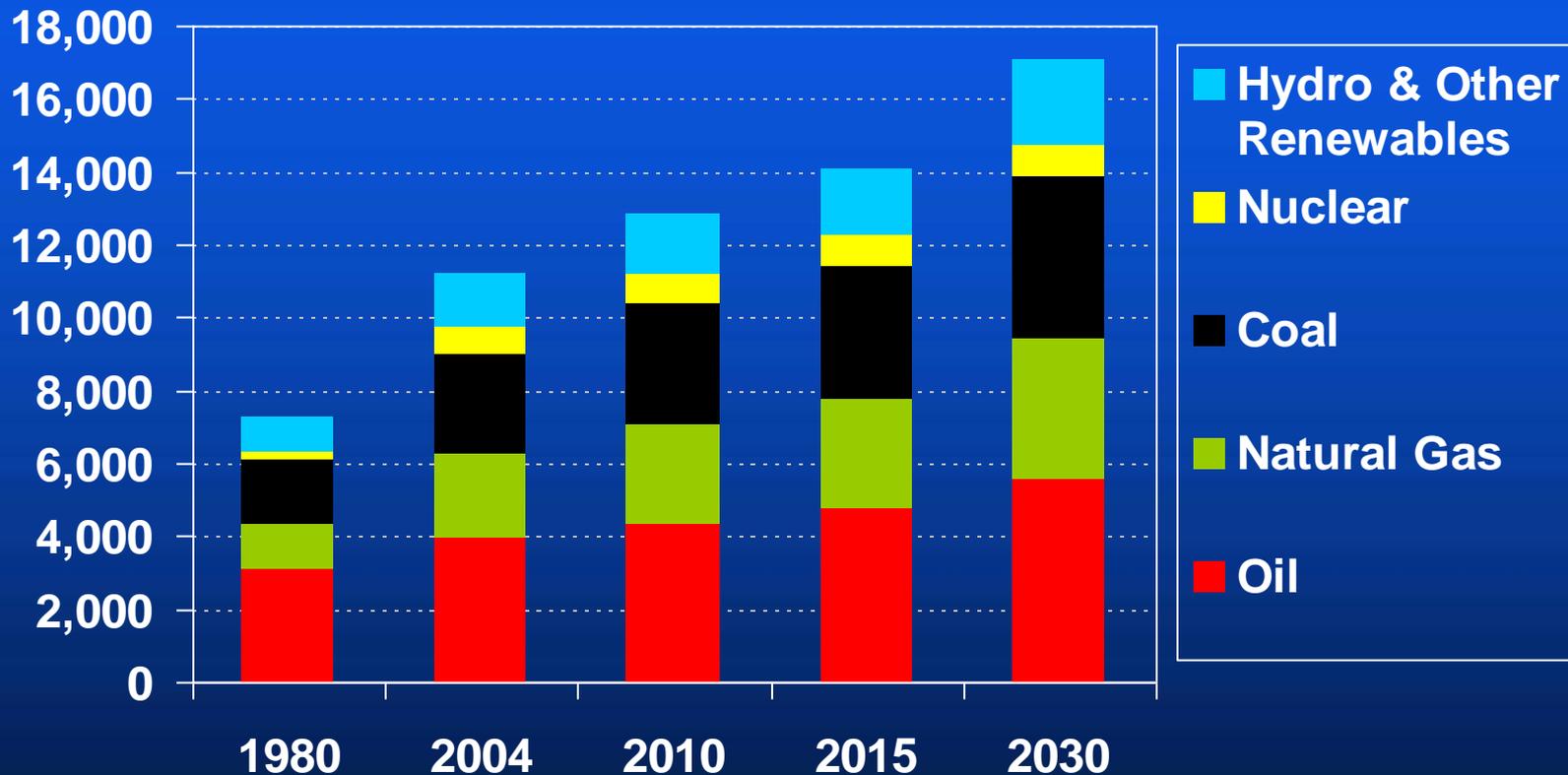
March 9, 2009

Clint Rybak

Asphalt Business Manager

World Energy Demand Outlook

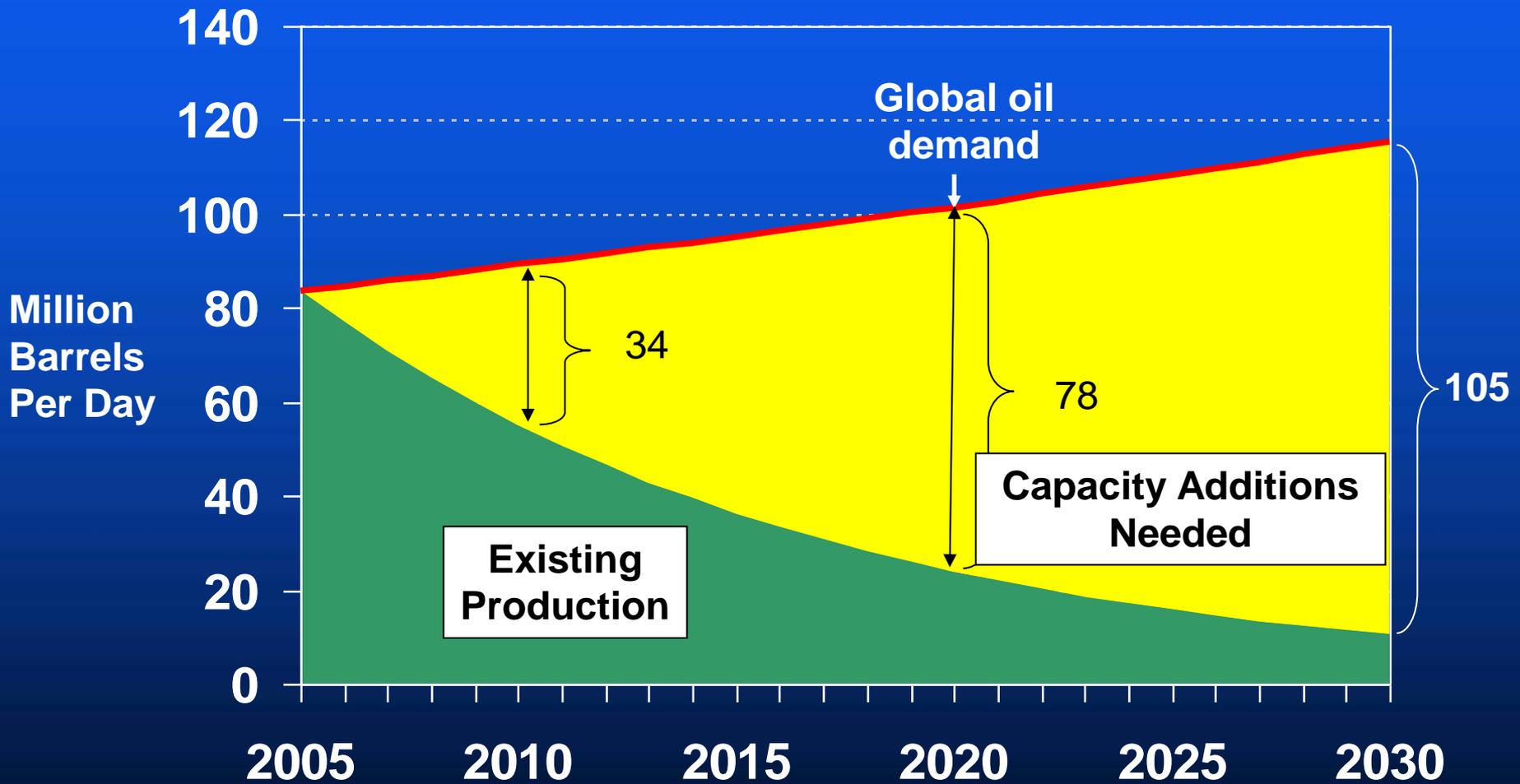
Million Tons of Oil Equivalent



In 2030:

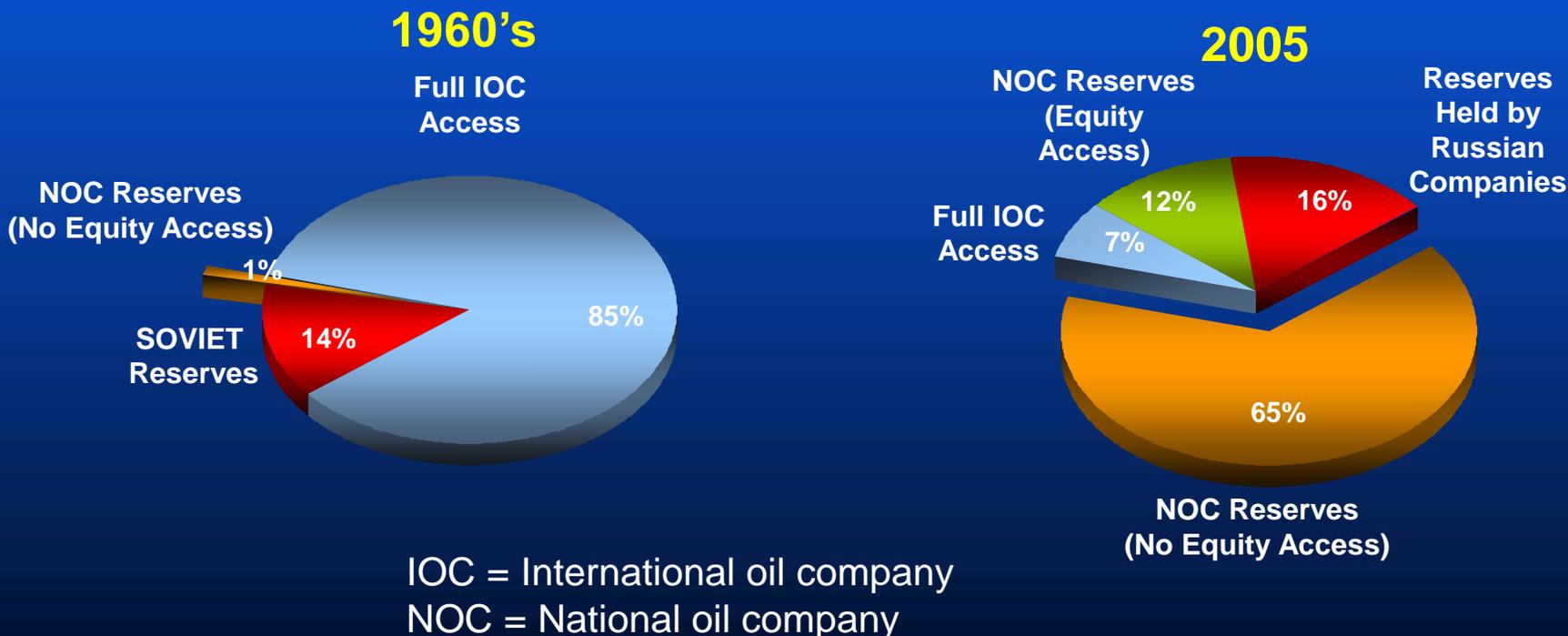
- Fossil fuels will still have over 80% market share
- Oil retaining over 30% share
- Natural gas is gaining share, reaching 24% in 2030

The Oil Supply Challenge



World Oil & Gas Reserves: 1960s vs. 2005

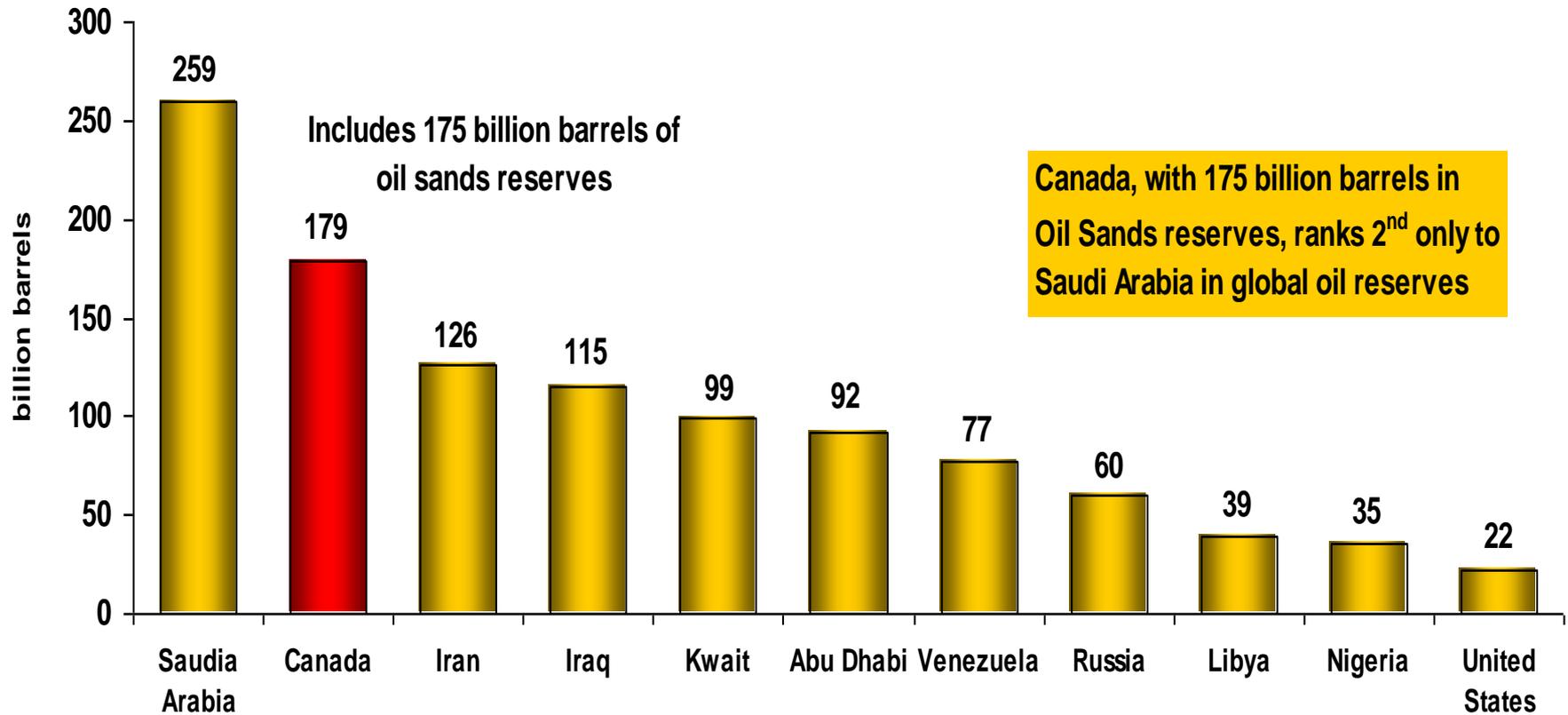
Drift Toward Constrained IOC Access



Source: PFC Energy, Oil & Gas Journal, BP Statistical Review 2006

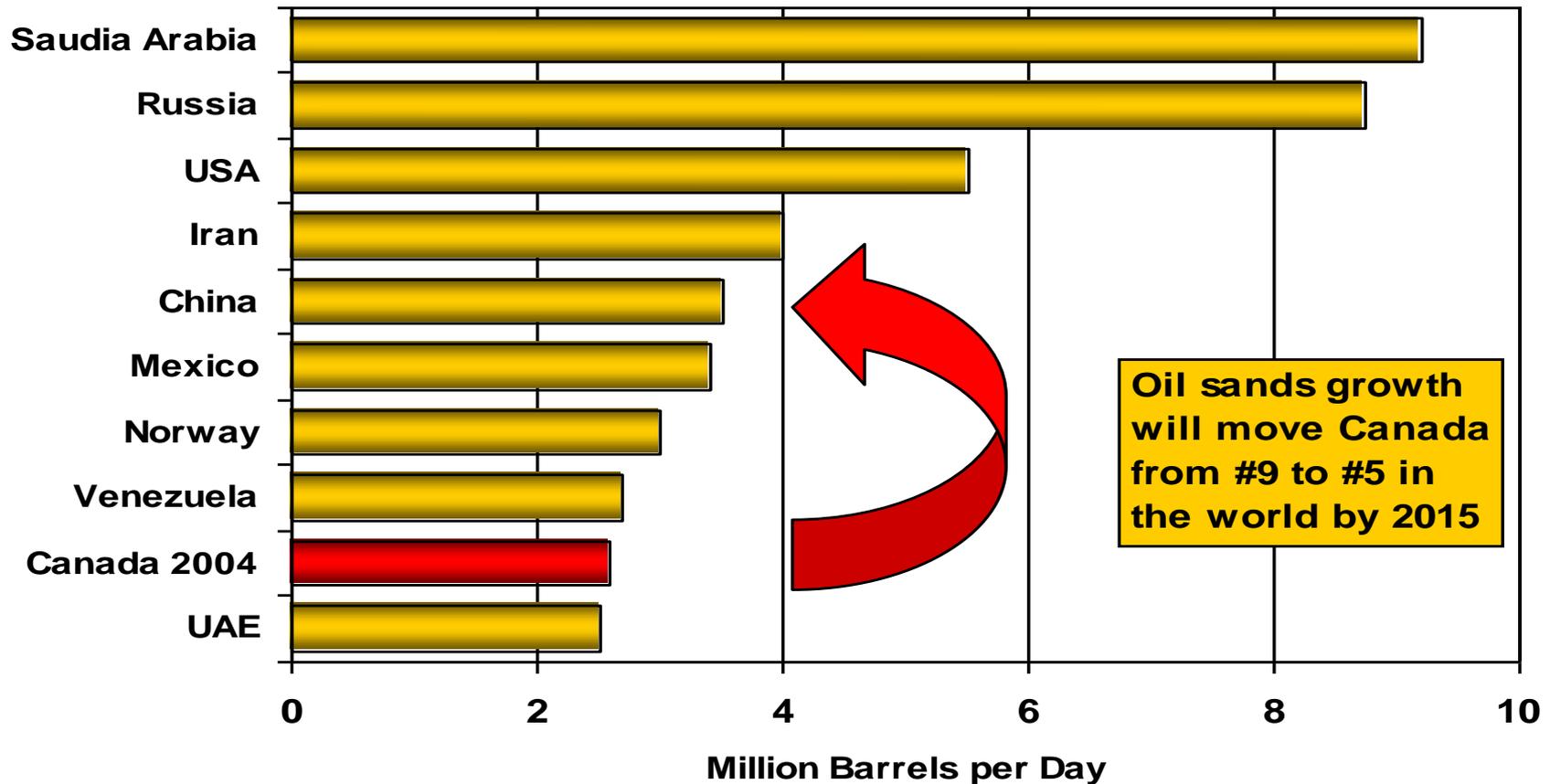
NOTE: Excludes unconventional crude oil and bitumen reserves

GLOBAL CRUDE OIL RESERVES BY COUNTRY



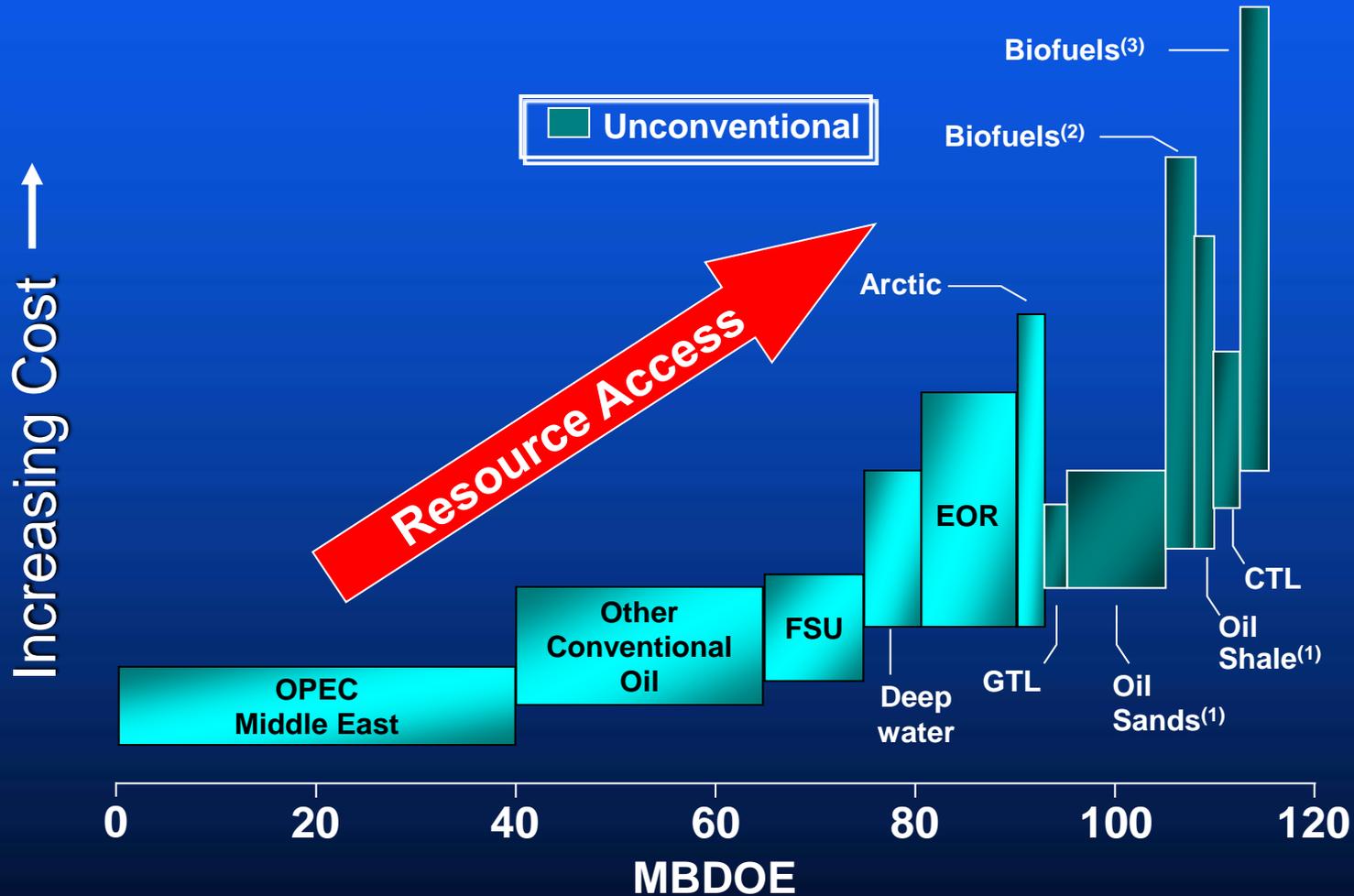
Source: Oil & Gas Journal Dec. 2004

TOP 10 WORLD CRUDE OIL PRODUCERS IN 2004



Source: EIA & CAPP

Increasing Cost of New Oil Supplies



Note (1): Includes mitigation costs to make unconventional sources CO2 neutral compared to conventional

Note (2,3): Based on energy equivalent breakeven versus crude including tax incentives (2), excluding tax incentives (3)

Source: Booz Allen Hamilton

Canadian Oil Sands

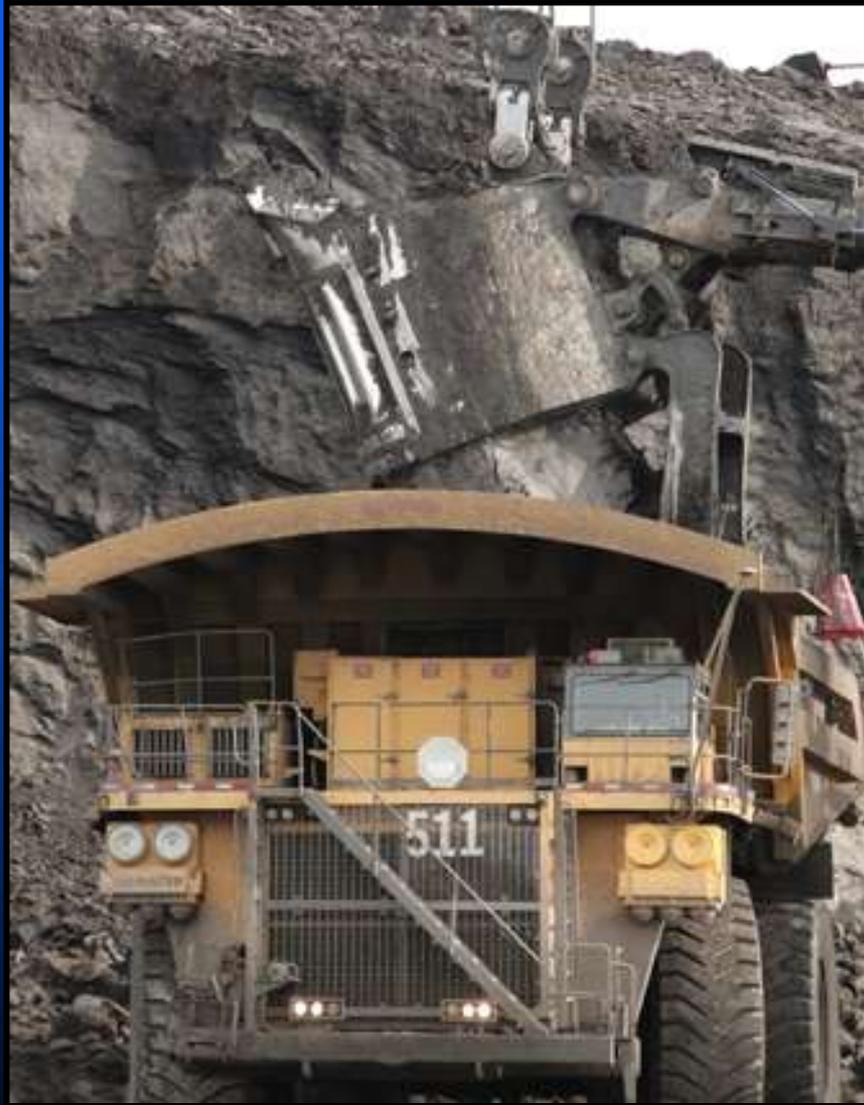


Oil Sands to Bitumen

Before dilution
for pipeline
transportation



Techniques: Mining



- Uses massive shovels and trucks to scoop the sand from the surface and load into trucks.
- Taken to crushers, where hot water is added before sent to extraction plant.
- Bitumen is extracted from oil sand and water is pumped into settling ponds.
- Typically associated with local upgrading to Synthetic Crude Oil.
- Only 20% of oil sands can be mined.
- The land is reclaimed after it is mined.

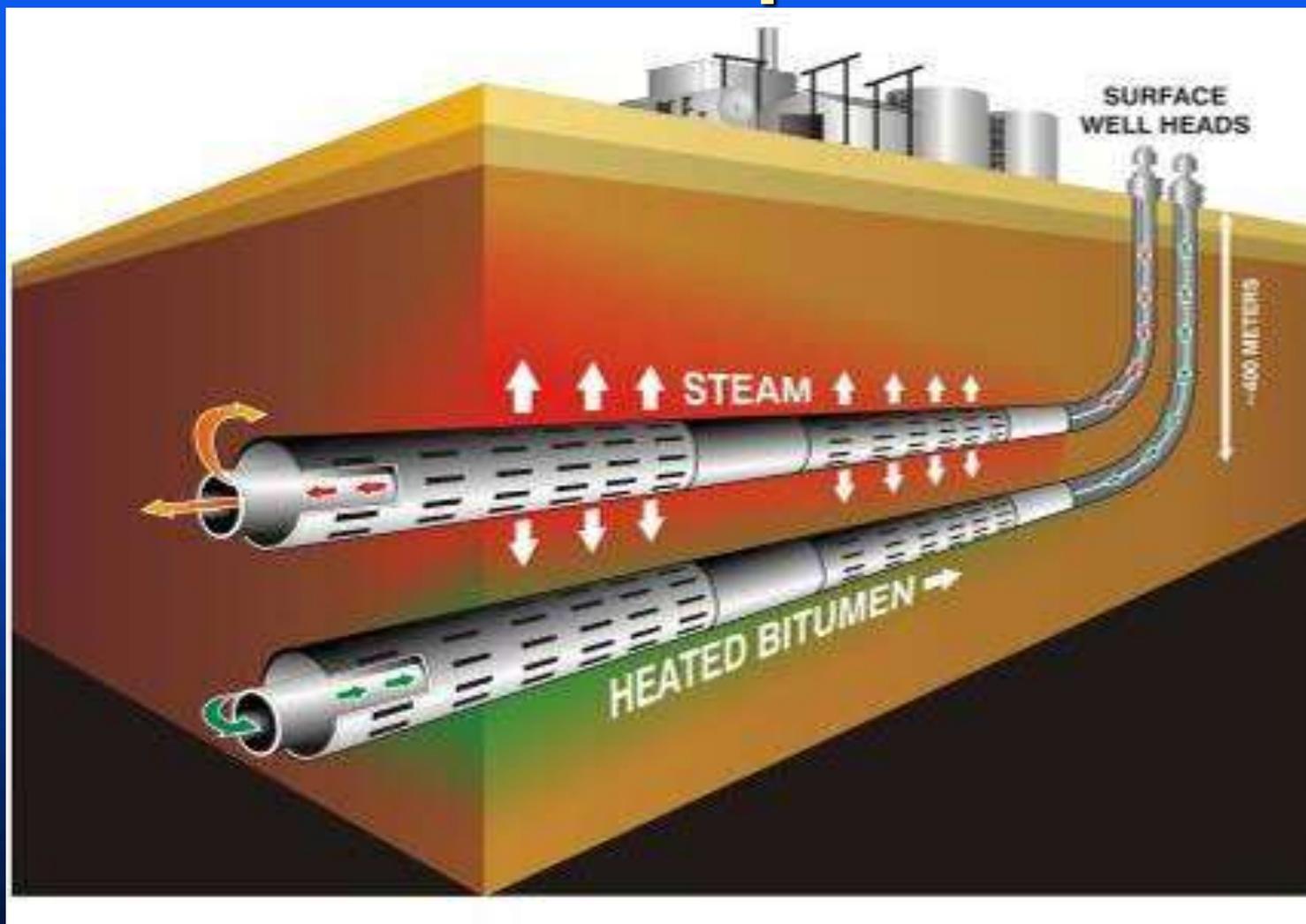


ConocoPhillips' Suncrude
Project in Canada

Mining Reclamation



Extraction Techniques: SAGD



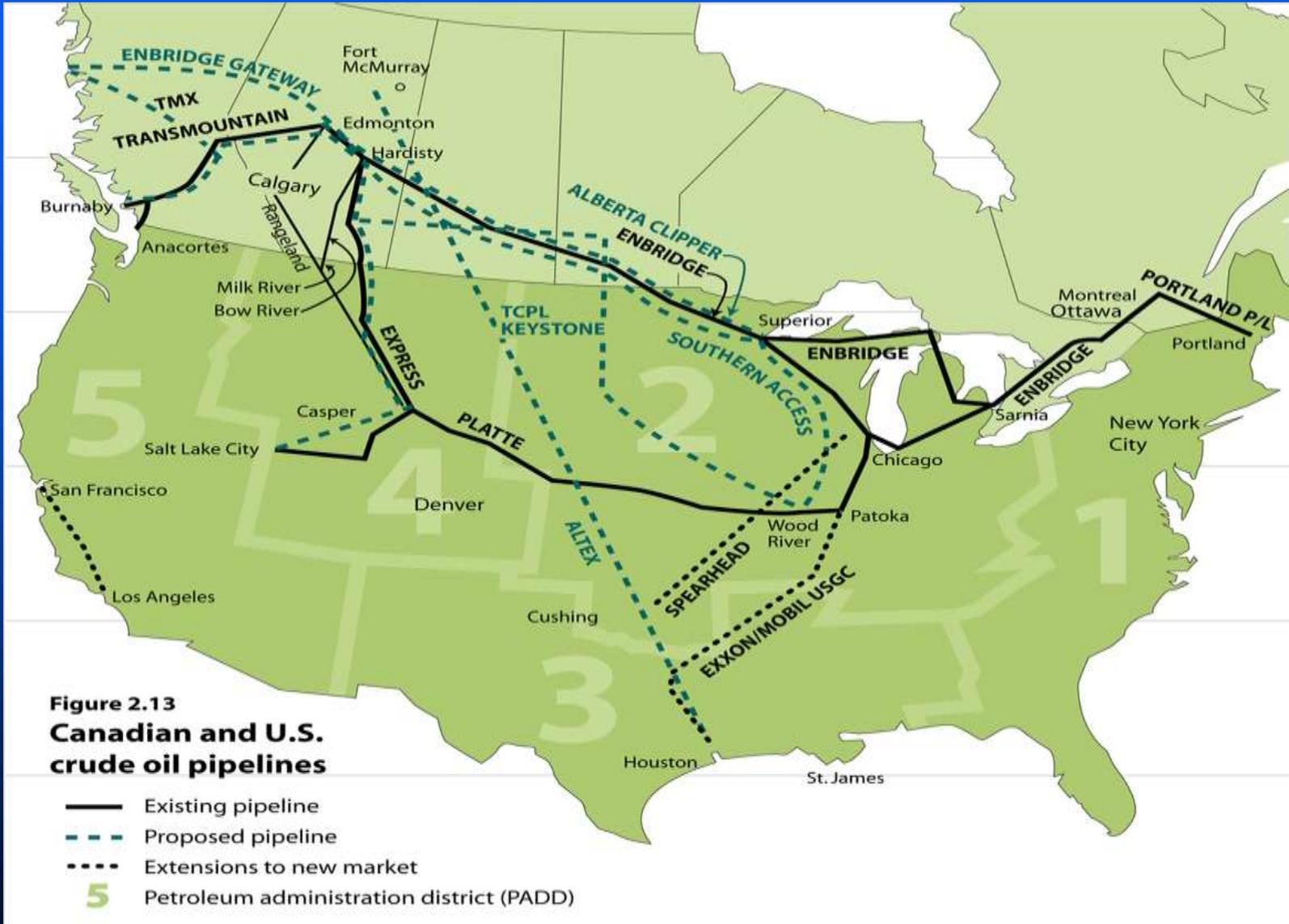
SAGD = Steam Assisted Gravity Drainage

SAGD Footprint



SAGD development has a similar footprint to conventional oil and gas development with the exception of GHGs, which we're working to address through technology.

PIPELINE SYSTEM



WOOD RIVER REFINERY TODAY

- Built in 1917
- Tenth Largest Refinery in US
- 800+ Employees
- ~30% Heavy crude processing capability
- 306,000 BPD crude processing
- Main Products Include
 - Gasoline
 - Diesel Fuel
 - Asphalt
 - Jet Fuel



WOOD RIVER'S FUTURE

- **CORE Expansion Will:**
 - Create More Than 1,500 Construction Jobs Between 2008 and 2011 at Refinery
 - Increase the Refinery's Employment 5%
 - Increase Canadian Crude Processing Capability to > 50%
 - Meet the Projected Future Demand for Transportation Fuels in the Midwest
 - 356 BPD Crude Processing
 - Products Include
 - Gasoline
 - Diesel Fuel
 - Jet Fuel
 - Asphalt

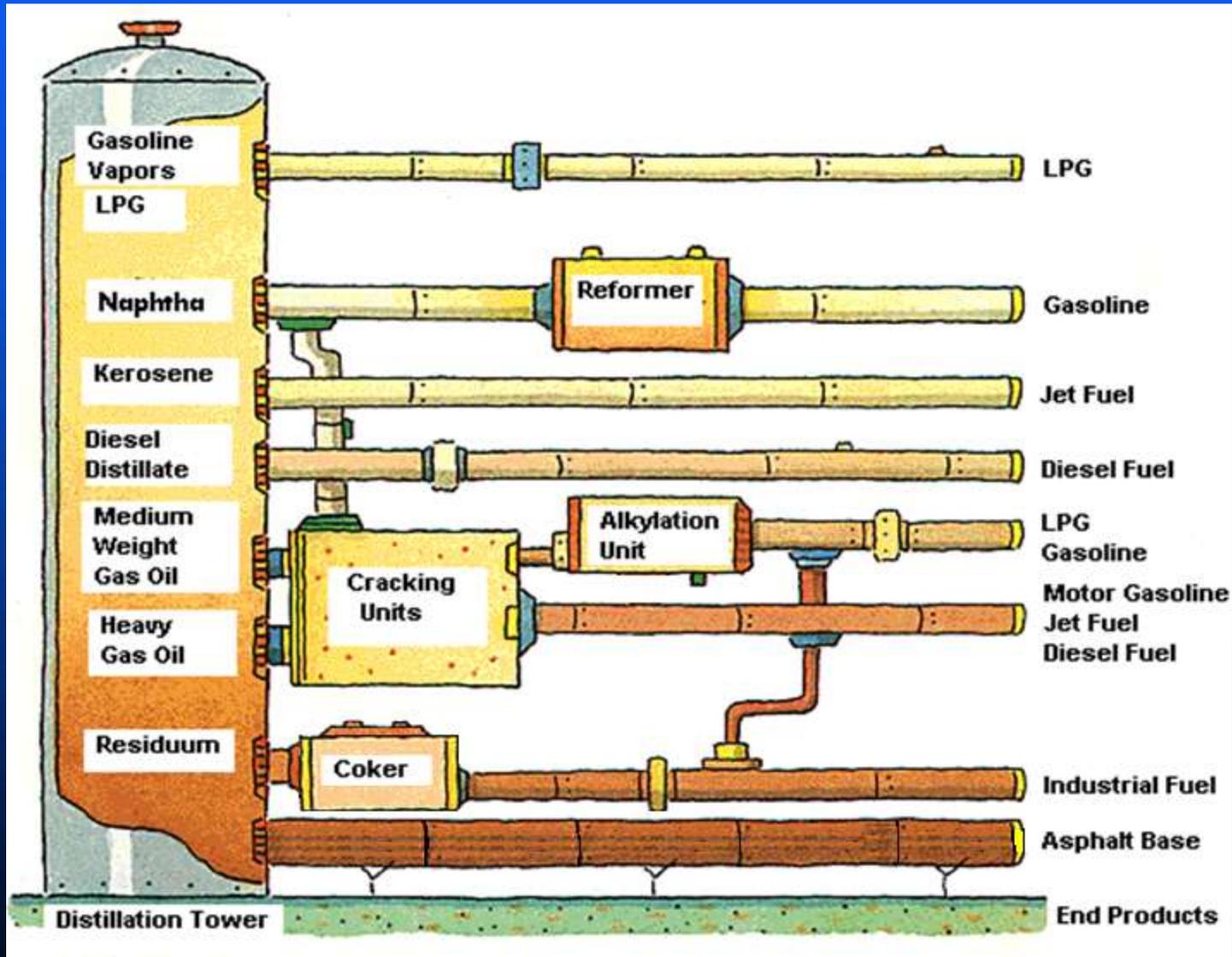


WOOD RIVER'S FUTURE

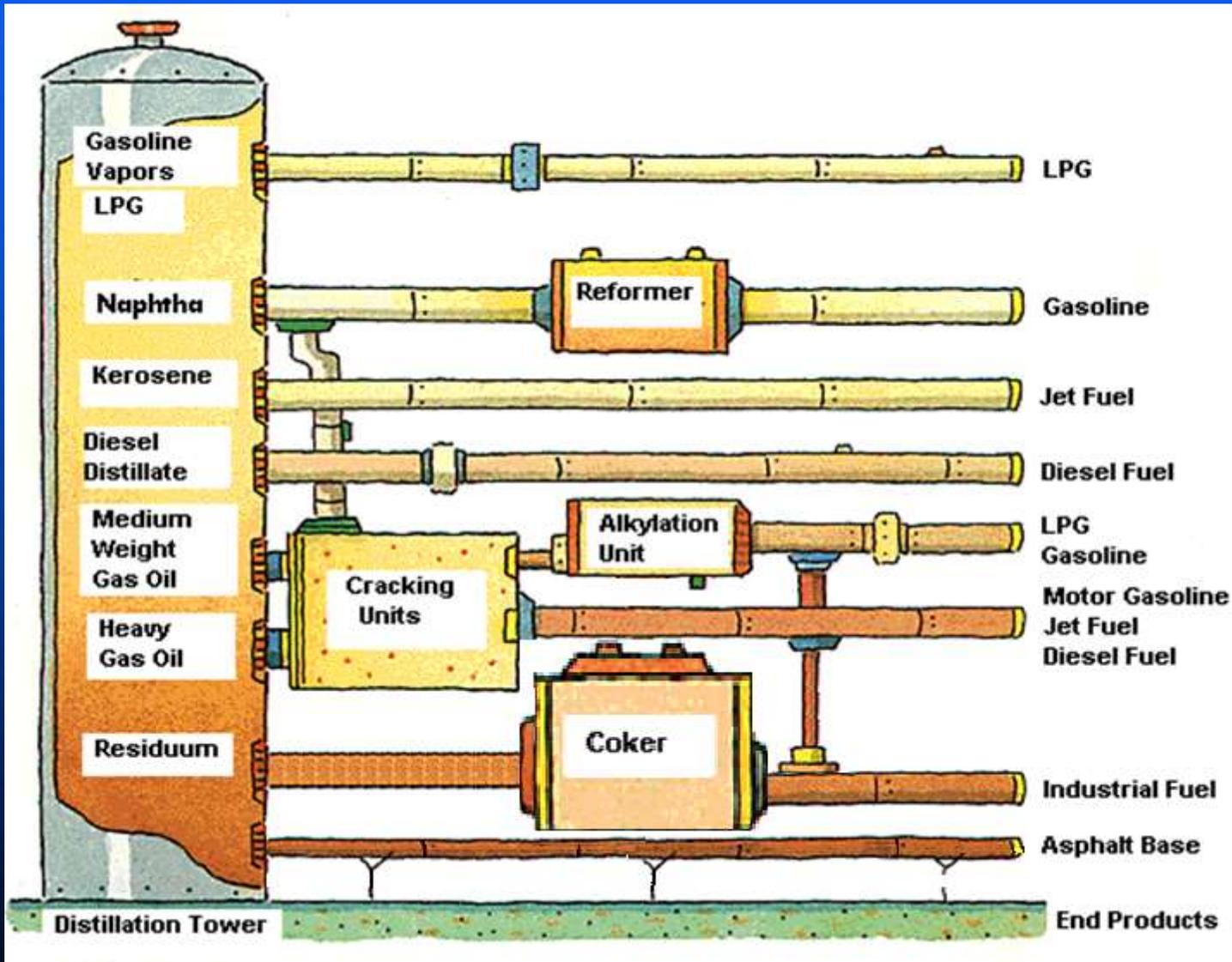


- **Full Bitumen Expansion**
 - **Continue to Provide Significant Construction Jobs Through 2015 and Further Increase Refinery Employment**
 - **Increase Canadian Crude Processing Capability to 100%**
 - **Expanded Crude Processing**
 - **Products Include**
 - **Gasoline**
 - **Diesel Fuel**
 - **Jet Fuel**
 - **Asphalt**

REFINERY CONFIGURATION – PRESENT



REFINERY CONFIGURATION – FUTURE



Questions?