Horn River
Past, Present and Future

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encana™
natural gas

Future Oriented Information

In the interest of providing EnCana Corporation ("EnCana" or the "Company") shareholders and potential investors with information regarding the Company, its subsidiaries, including management's assessment of the Company's future plans and operations, certain statements and graphs throughout these presentations contain "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 or "forward-looking information" within the meaning of applicable Canadian securities legislation. Forward-looking statements in this presentation include, but are not limited to, statements and tables with respect to: future opportunities in Barnett; number of wells proposed to be drilled; proposed plans for the Cabin gas plant for 2009 through 2012; and future possible sources of water for fracs.

Readers are cautioned not to place undue reliance on forward-looking statements, as there can be no assurance that the future circumstances, outcomes or results anticipated in or implied by such forward-looking statements will occur or that plans, intentions or expectations upon which the forward-looking statements are based will occur. By their nature, forward-looking statements involve numerous assumptions, known and unknown risks and uncertainties, both general and specific, that contribute to the possibility that circumstances, events or outcomes anticipated or implied by forward-looking statements will not occur, which may cause the actual performance and financial results in future periods to differ materially from the performance or results anticipated or implied by any such forward-looking statements. These assumptions, risks and uncertainties include, among other things: risks associated with the ability to obtain any necessary approvals, waivers, consents, court orders and other requirements necessary or desirable to permit or facilitate the proposed transaction (including regulatory and shareholder approvals); the risk that any applicable conditions of the proposed transaction may not be satisfied; volatility of and assumptions regarding oil and gas prices; assumptions contained in or relevant to the company's current corporate guidance; fluctuations in currency and interest rates; product supply and demand; market competition; risks inherent in marketing operations (including credit risks); imprecision of reserves estimates and estimates of recoverable quantities of oil, bitumen, natural gas and liquids from resource plays and other sources not currently classified as proved reserves; the ability to successfully manage and operate the integrated North American enhanced oil recovery business with ConocoPhillips; refining and marketing margins; potential disruption or unexpected technical difficulties in developing new products and manufacturing processes; potential failure of new products to achieve acceptance in the market; unexpected cost increases or technical difficulties in constructing or modifying manufacturing or refining facilities; unexpected difficulties in manufacturing, transporting or refining crude oil; risks associated with technology; the ability to replace and expand oil and gas reserves; the ability to generate sufficient cash flow from operations to meet current and future obligations; the ability to access external sources of debt and equity capital; the timing and the costs of well and pipeline construction; the ability to secure adequate product transportation; changes in royalty, tax, environmental and other laws or regulations or the interpretations of such laws or regulations; applicable political and economic conditions; the risk of war, hostilities, civil insurrection, political instability and terrorist threats; risks associated with existing and potential future lawsuits and regulatory actions; and other risks and uncertainties described from time to time in the reports and filings made with securities regulatory authorities by EnCana. Although EnCana believes that the expectations represented by such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct. Readers are cautioned that the foregoing list of important factors is not exhaustive.

Assumptions relating to forward-looking statements generally include EnCana's current expectations and projections made by the company in light of, and generally consistent with, its historical experience and its perception of historical trends, as well as expectations regarding rates of advancement and innovation, generally consistent with and informed by its past experience, all of which are subject to the risk factors identified elsewhere in this presentation.

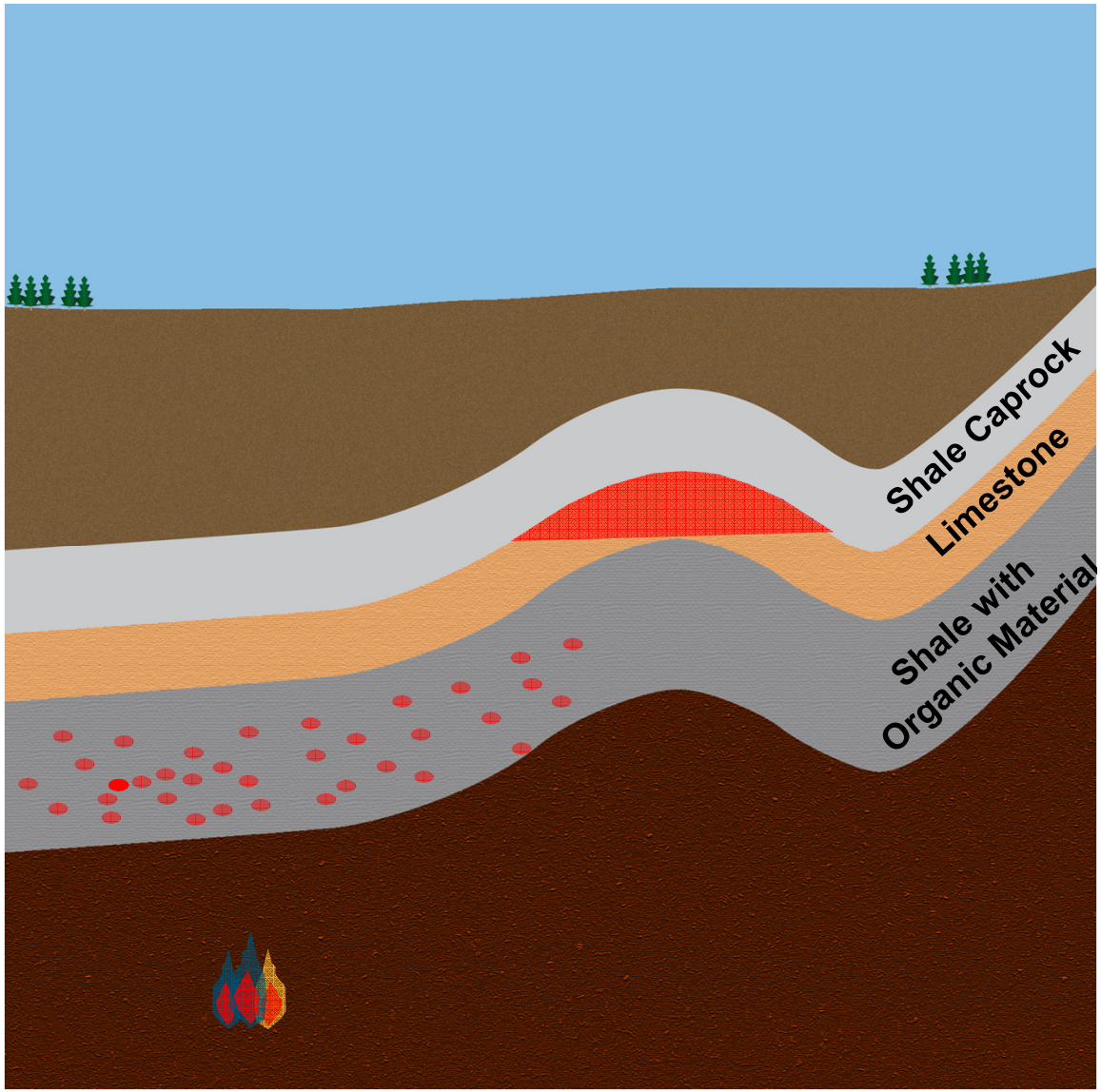
Furthermore, the forward-looking statements contained in this presentation are made as of the date of this presentation, and, except as required by law, EnCana does not undertake any obligation to update publicly or to revise any of the included forward-looking statements, whether as a result of new information, future events or otherwise. The forward-looking statements contained in this presentation are expressly qualified by this cautionary statement.

Outline

- What is Shale and Shale Gas?
- What and Where is Horn River?
- Challenges… Opportunities
  - Efficient reservoir development strategy
  - Reducing the development footprint
    - Horn River Producers Group
    - Multi-well pads with long horizontals
    - Water for fracs… a sustainable model
    - Protecting Groundwater

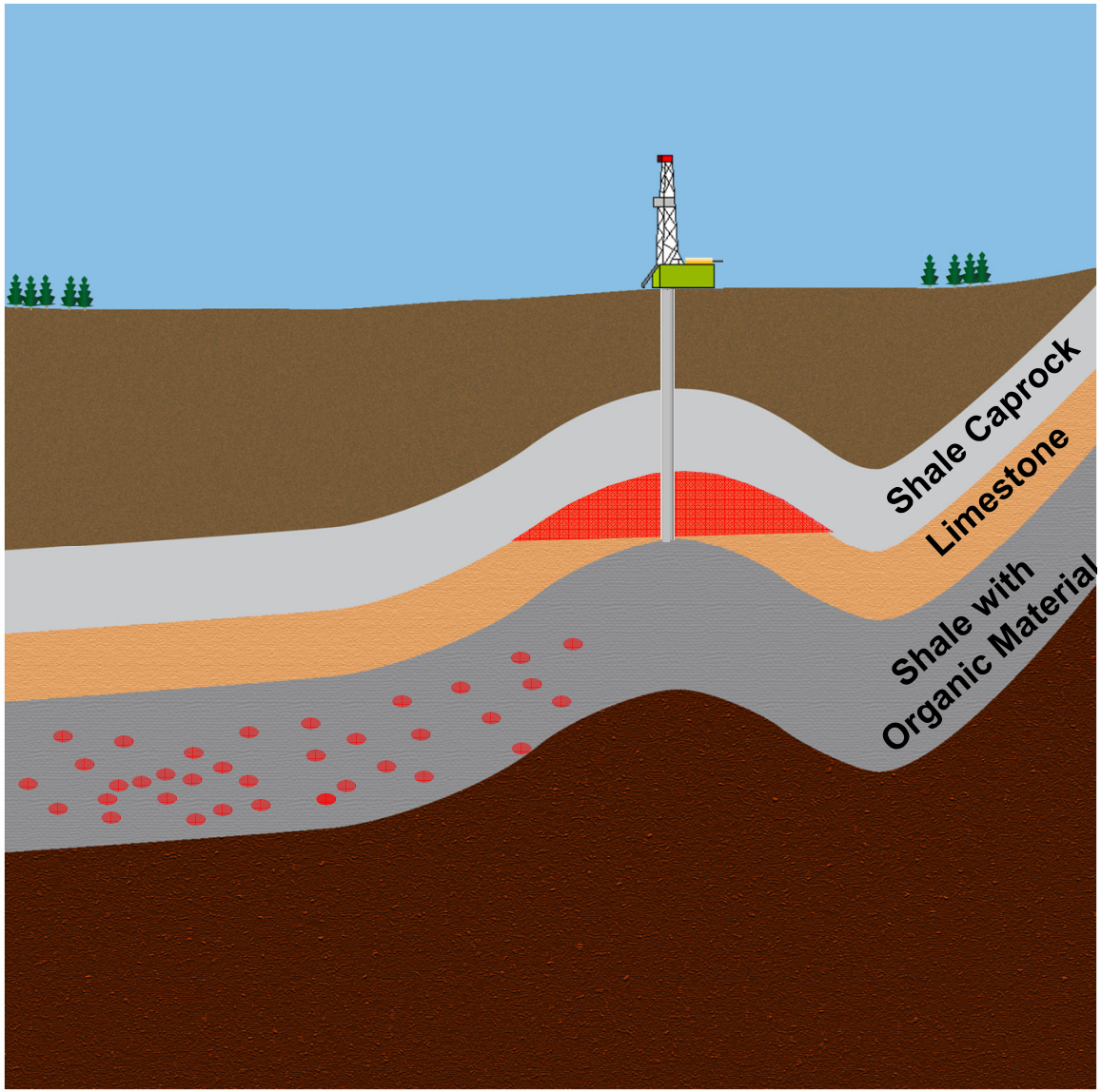
How do we get gas out of shale?

- Geothermal energy converts organic material in shales into oil and gas.
- Some gas migrates to conventional traps



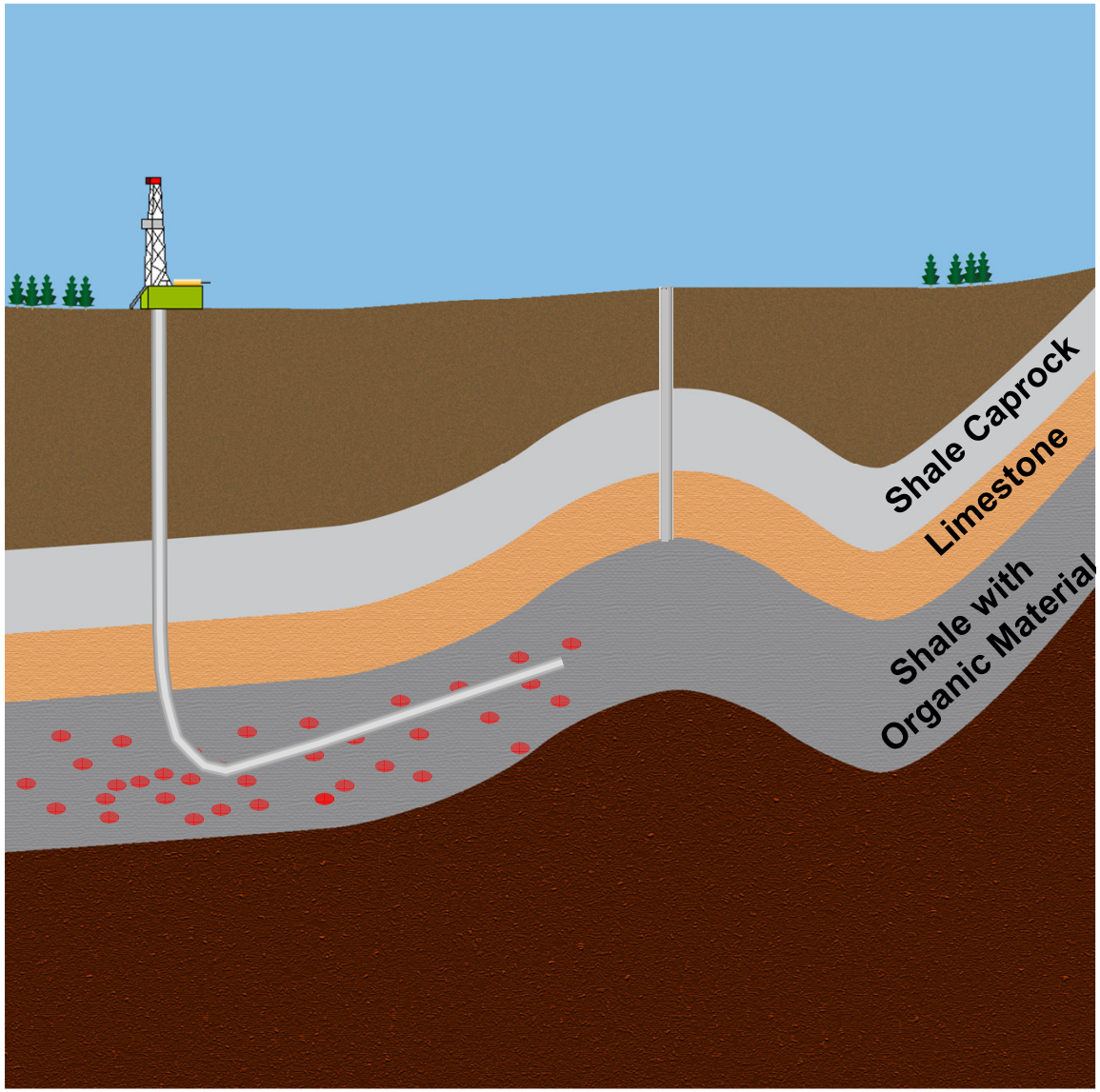
How do we get gas out of shale?

- Conventional drilling targets these accumulations
- Large amounts of gas still exist within the shale source rock
- However, shale doesn't have enough permeability to allow gas to flow to a wellbore.



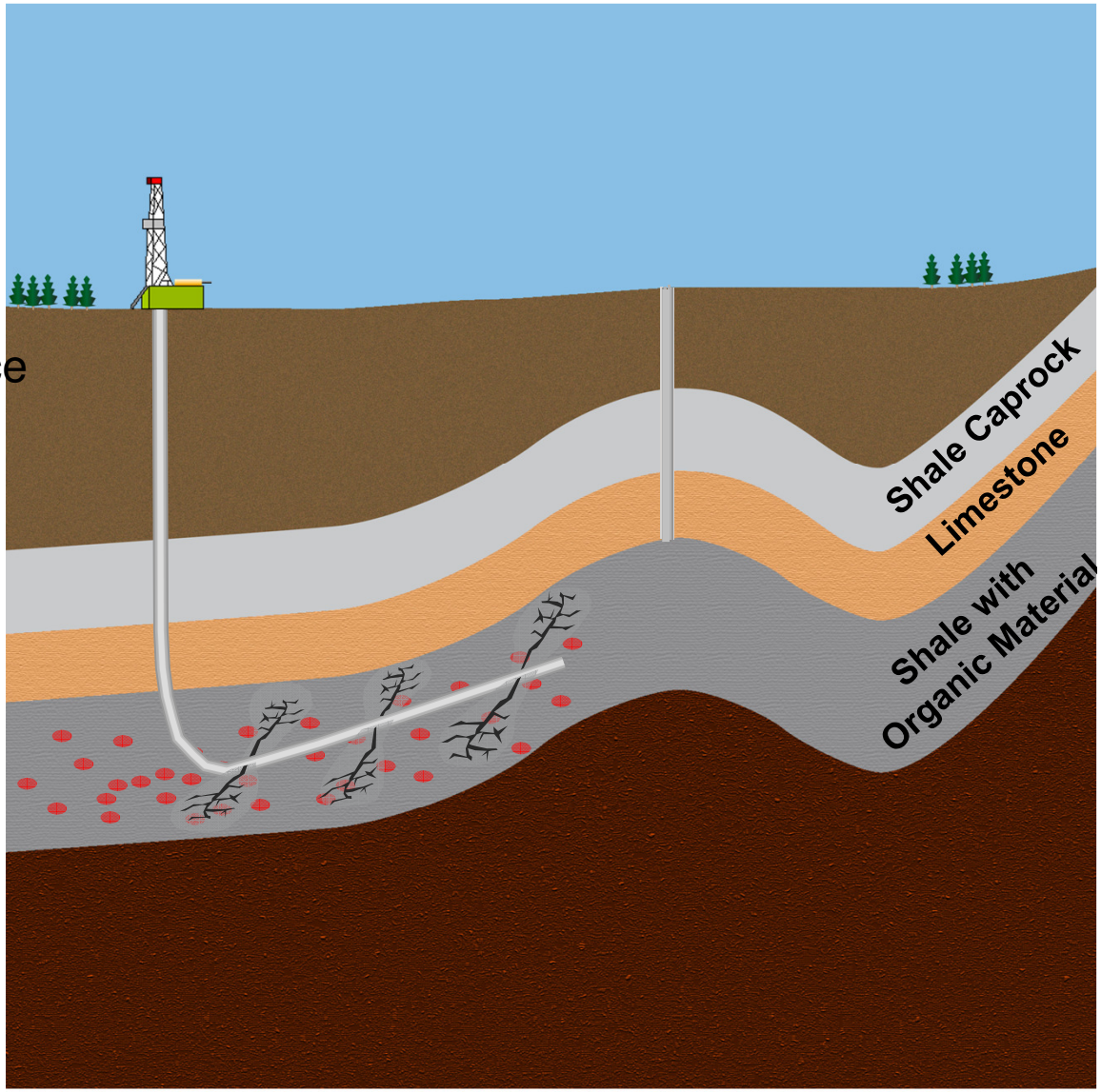
How do we get gas out of shale?

- Horizontal Drilling allows one wellbore to access much more reservoir than vertical wells.
- Fracture stimulations (fracs) are required to allow the gas to access the wellbore.



How do we get gas out of shale?

- Large volumes of water are pumped into the formation at high pressure, creating a fracture network (SRV)
- Sand is pumped in with water to prop the fractures open once the pressure is released
- Gas can now flow out of the formation to the wellbore



Quartz-rich and Clay-rich Shales

Quartz

Clays (Mica Minerals)

Shale

Quartz-rich and Clay-rich Shales

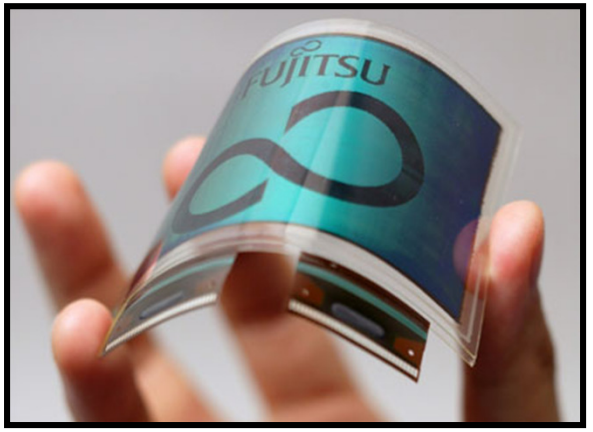
Quartz

Brittle

http://www.stockvault.net/watermark.php?i=2139

Clays (Mica Minerals)

Flexible



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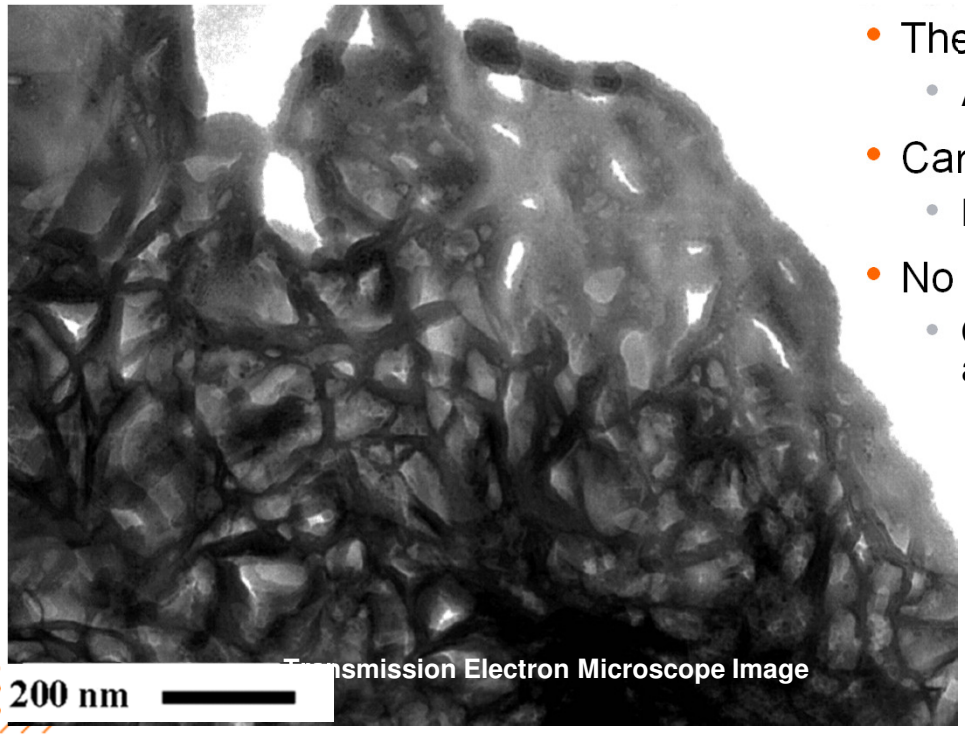
Which Shales Work for a Shale Gas Project?



Transmission Electron Microscope Image

- Brittle
  - Dominantly quartz grains
- Thick (180m)
  - More rock holds More gas
- Porosity (4%)
  - More holes to hold gas (pore spaces)
- Highly pressured (40 MPa)
  - Pack more gas into pore spaces
- Thermally Mature (T_{max} 600^{o}C)
  - All organic material converted to gas
- Carbon Content (5% Organic Carbon)
  - More material for gas to adsorb to
- No Faulting
  - Open faults and fractures cause frac energy loss and decrease SRV

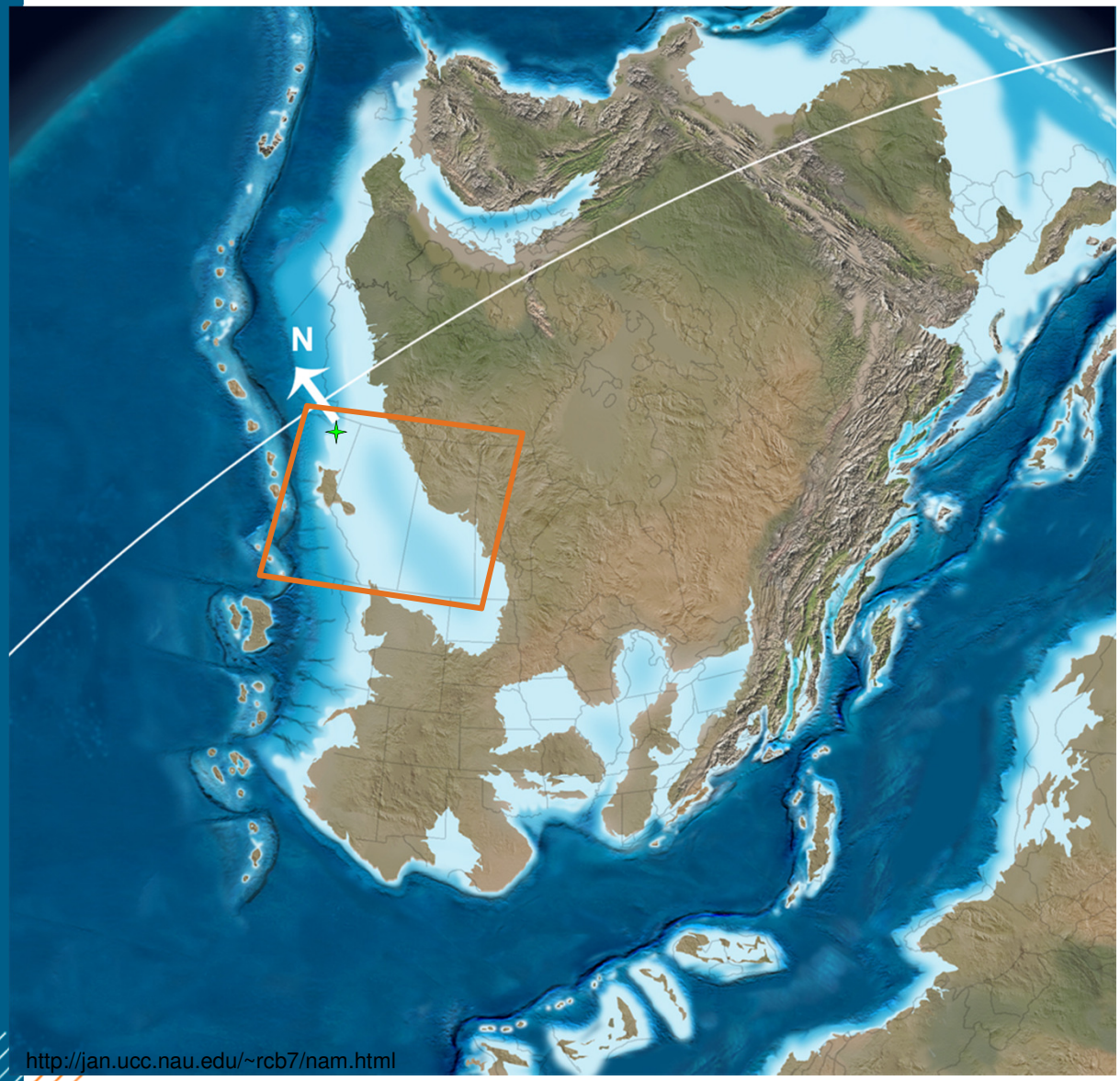
(Bus

A Great Shale!!

Horn River Shale Outcrop - Alaska Highway

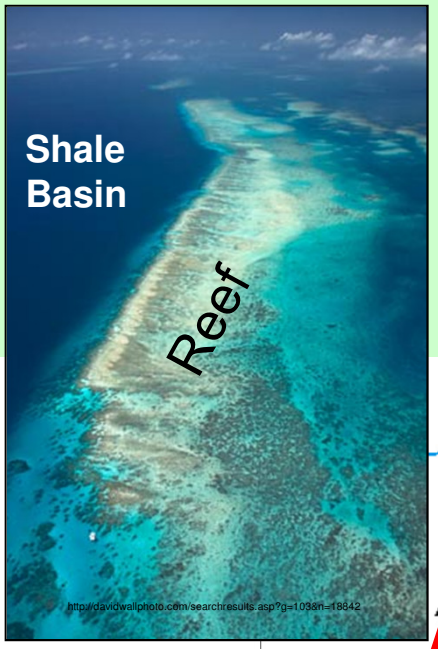
Photo V. Biersteker

Paleogeography: Where in the World was Horn River?



- Devonian Period
- 380 million years ago
- “Age of Fishes”
- Equator ran through North America
- Tropical climate over most of continent
- Western Canada covered by water

Where in the World is Horn River?



SHALE BASIN

Bovie Lk.Fault

Bovie Fault

Presquile Barrier "Dkr + Ds"

Slave Point / Keg River Reef Edge

Missile

Two Island Lake

Komie

100km

Brandt

Dpy

Mel

Ds

Lucy

Yoyo

Sierra

Poplar Hills

Evie

Fort Nelson

Milo

94-O-15

94-O-16

94-O-10

94-O-9

94-O-8

94-O-7

94-O-3

94-O-2

94-O-1

94-J-14

94-J-15

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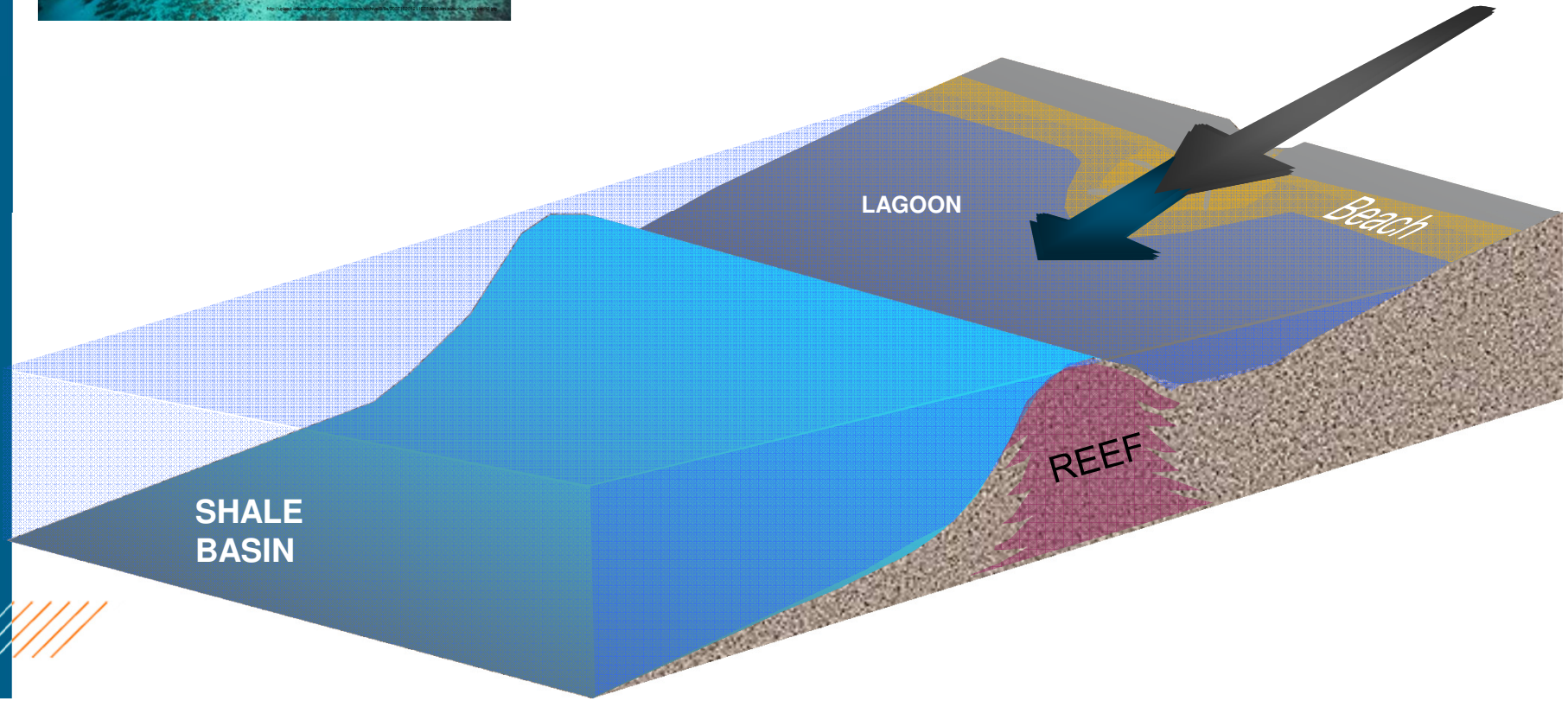
Deposition

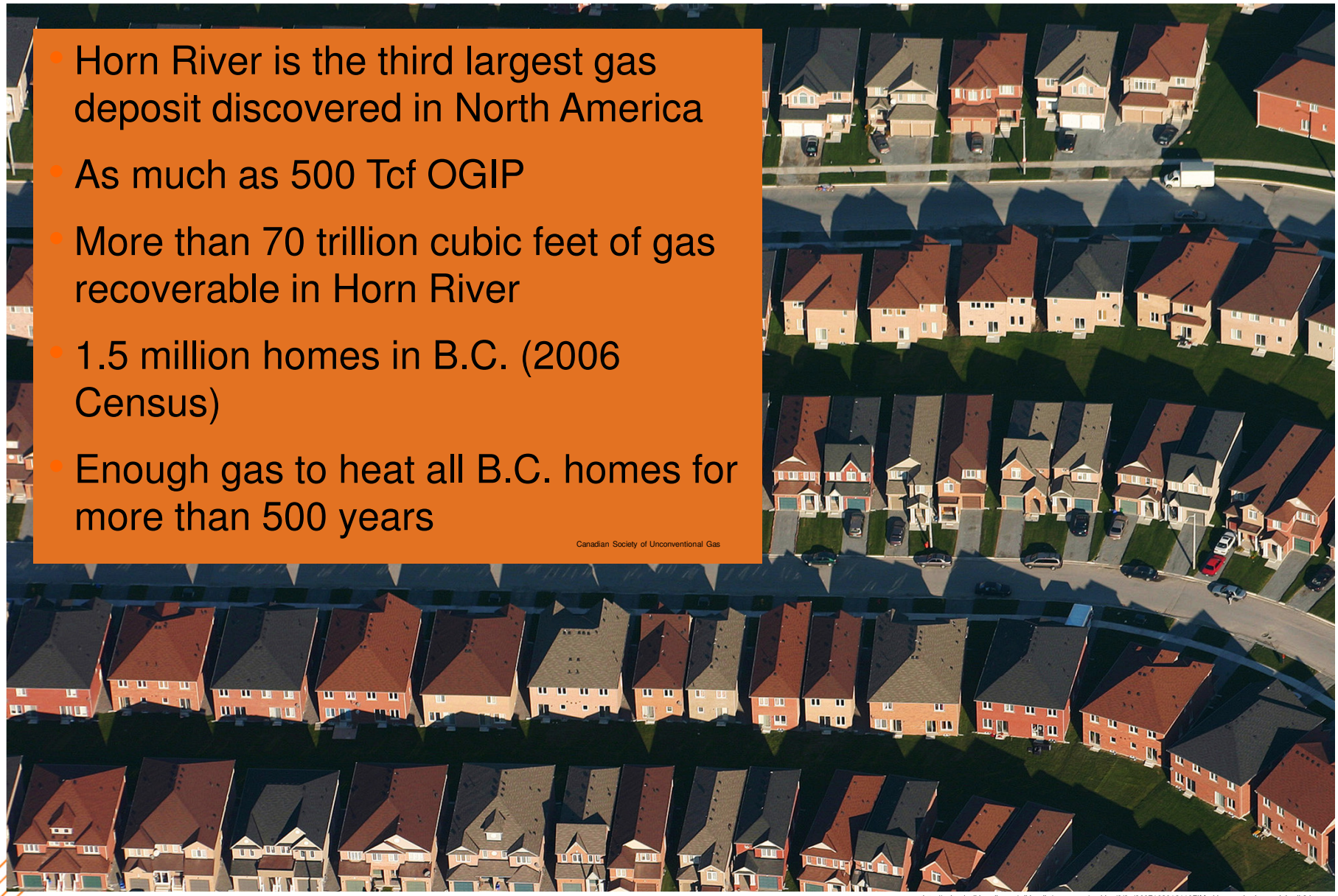
- Mud sized particles are small
- Stay suspended in water column for a long time
- Shale basin receives only mud



How big is Horn River?

- Horn River is the third largest gas deposit discovered in North America
- As much as 500 Tcf OGIP
- More than 70 trillion cubic feet of gas recoverable in Horn River
- 1.5 million homes in B.C. (2006 Census)
- Enough gas to heat all B.C. homes for more than 500 years

Canadian Society of Unconventional Gas



http://upload.wikimedia.org/wikipedia/commons/archive/8/8a/20071020121107!Markham-suburbs_aerial-edit2.jpg

Where it began…

Trail B-48-A Well

EnCana well drilled in 2003
targeting a deeper formation.
Took Gas Kick from
Muskwa / Otter Park Shale section

The evolution of a development strategy

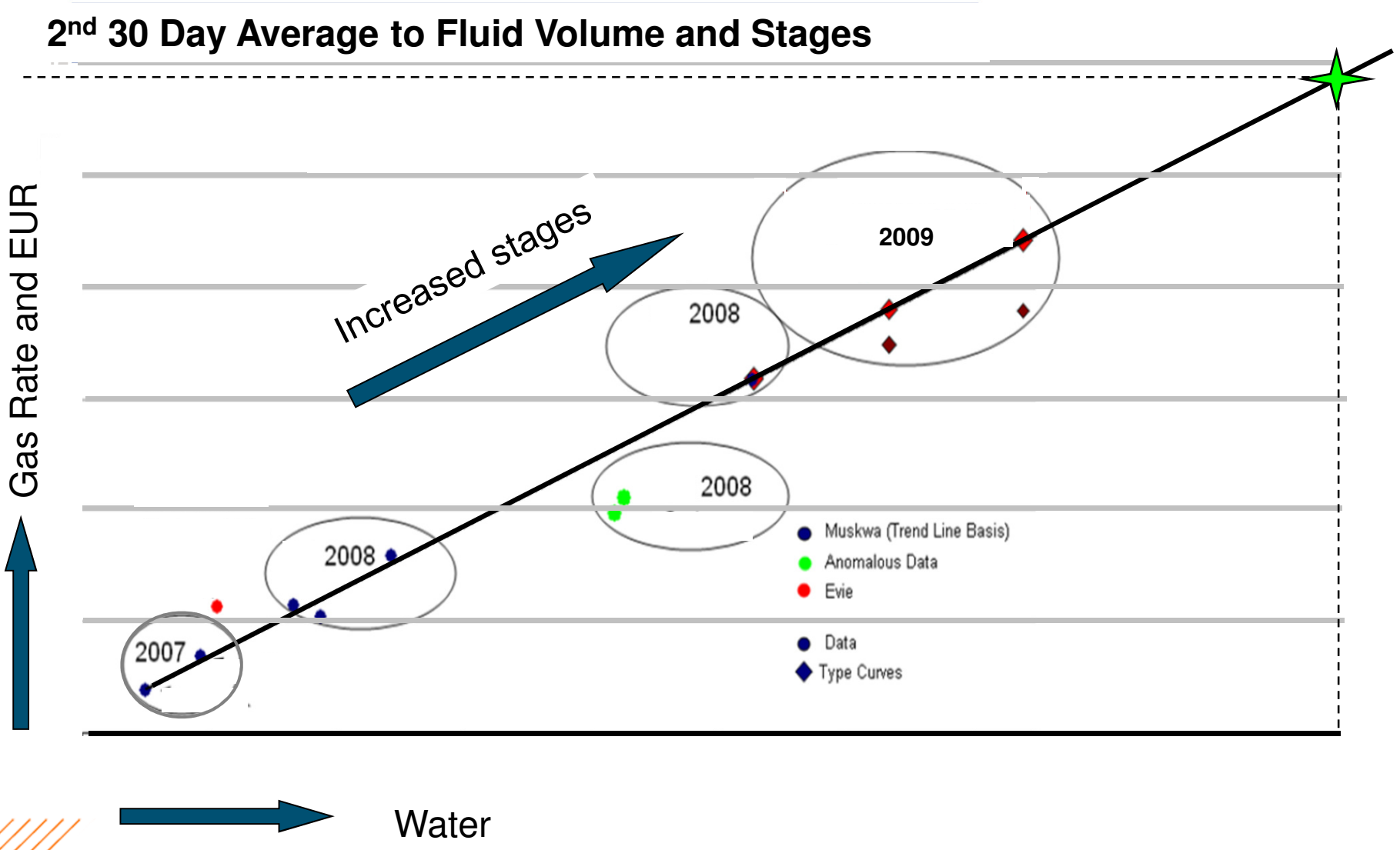
Year	Stimulation			Production	
	# Stages	Avg/Stage		Avg/Stage	Total
		H_2O (m^3)	Sand (tons)	(mmcf/d)	(mmcf/d)
2005	2	400	10	0.2	0.5
2006	2	2000	110	0.4	0.8
2007	3	2300	100	0.5	1.4
2008	9	3500	230	0.7	5.9
2009	13	4000	200	0.7	9.1
2010	21	5000	200	-	-

- More wells/pad
- Longer wells
- More fracs per well
- More water per frac

Encana 63-K Pad

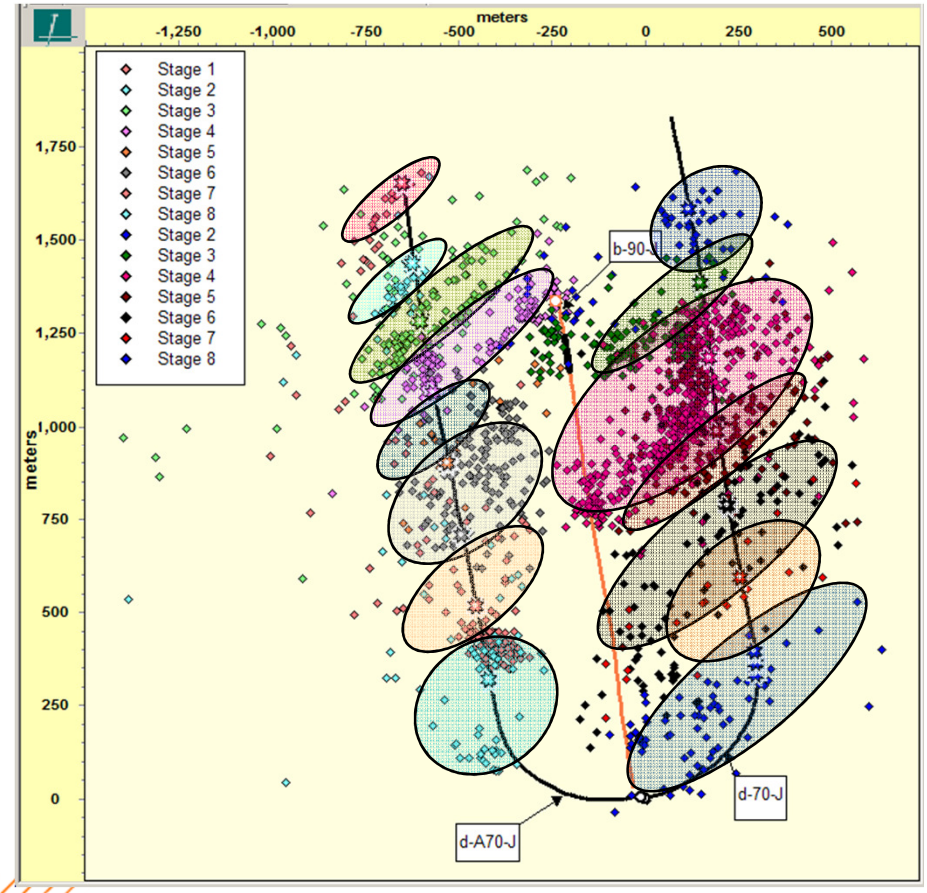
October 2010

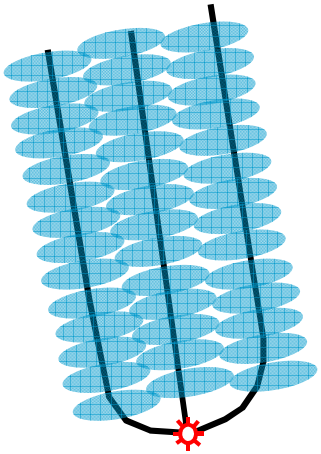
Water Volume + Stages = Gas Rate



Optimizing the fracs

- Well and Frac Spacing
  - What is the optimal spacing?
  - What is the optimal volume?

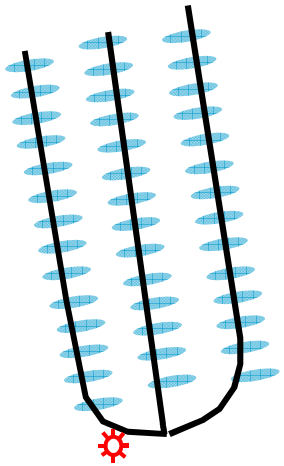




Ideal Spacing

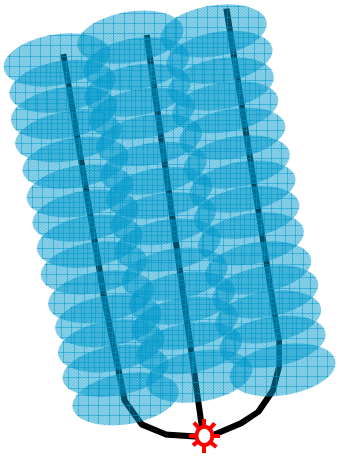
Too Small

- **Stranded reserves**



Too Big

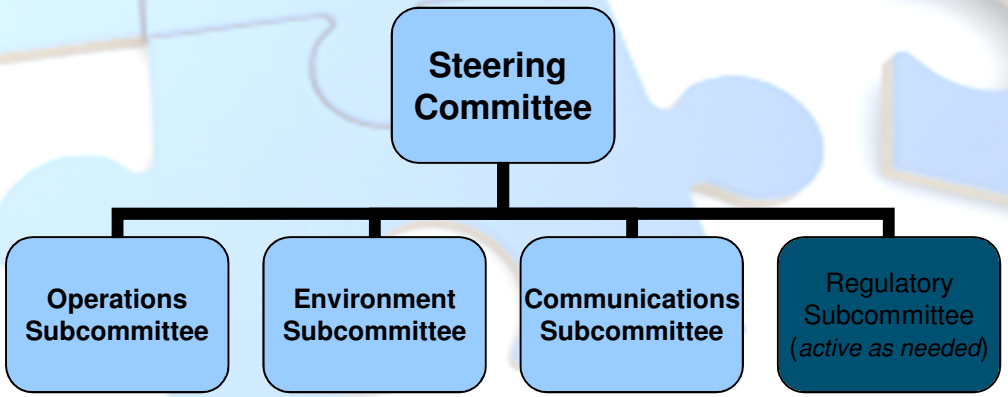
- **Interference**
- **Over capitalized**



Reducing the Development Footprint
The Horn River Producers Group

- Horn River Basin Producers Group (HRBPG)
  - Currently 11 companies
  - Formed in November 2007
- Working Together
  - Facilitate cooperation and communication between companies and key community groups concerning development activities
  - Ensure a coordinated approach to long-term development of the Horn River Basin

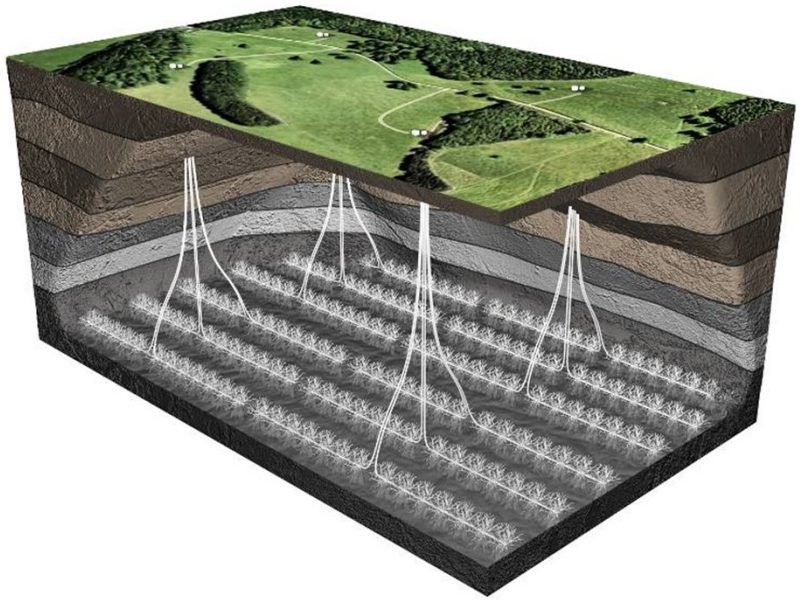
- Structure:
  - Steering Committee provides strategy and direction
  - Subcommittees comprised of specialists to address specific areas



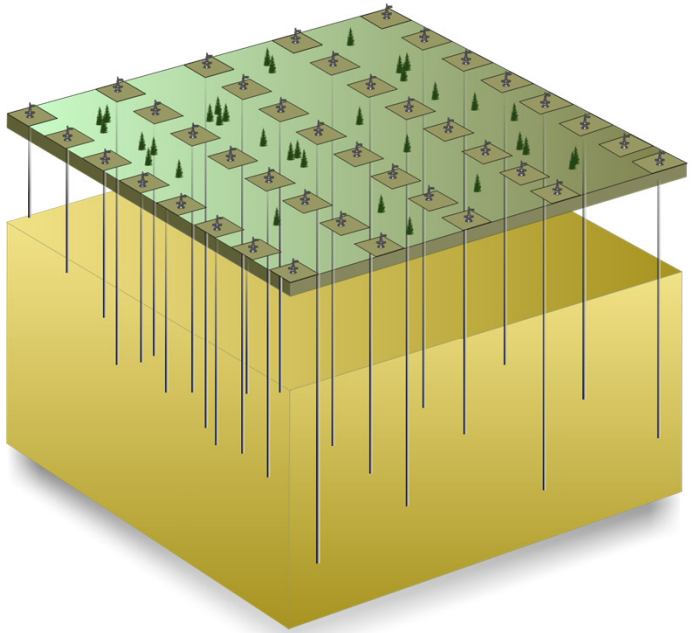
Horizontal multi-well pad vs. Vertical wells

Reducing the surface impact
Gaining operational efficiency

Horizontal multi-well pad vs. Vertical (same volume of rock disturbed)



- 16 Horizontal wells from one 285m x 225m pad (16 acres)
- Total of 420 fracs over 3300 acres
- Each frac stimulation stage in hz well is equiv. to a vert. well



- Vertical wells each on a separate 100m x 100m pad

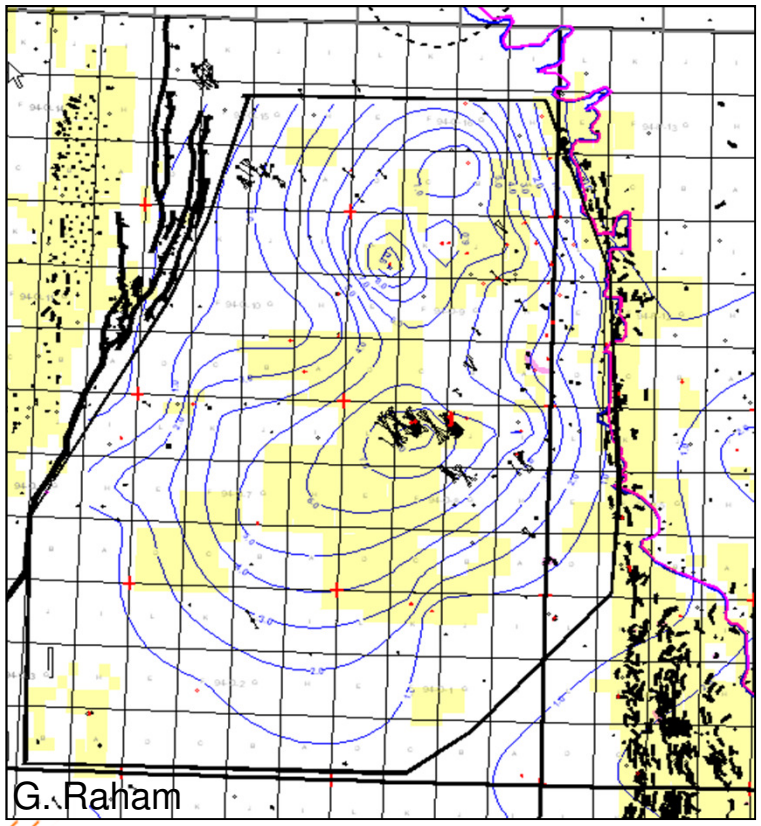
The 16 well Hz pad has <5% of the disturbed area of the comparable vertical well scenario

Water Usage in Horn River

- **Ability to source water is a key to development**
- Primary frac water source until 2010 has been Two Island Lake
  - B.C. Oil & Gas Commission allows a maximum withdrawal of 600,000m^3 or 10cm drop in lake level
- Surface water was used to prove feasibility of play, but is not a long term solution
- Encana continuously strives to reduce environmental impact
- Exploration for a subsurface, non-potable source of water identified the Debolt Formation

Debolt Water Resource

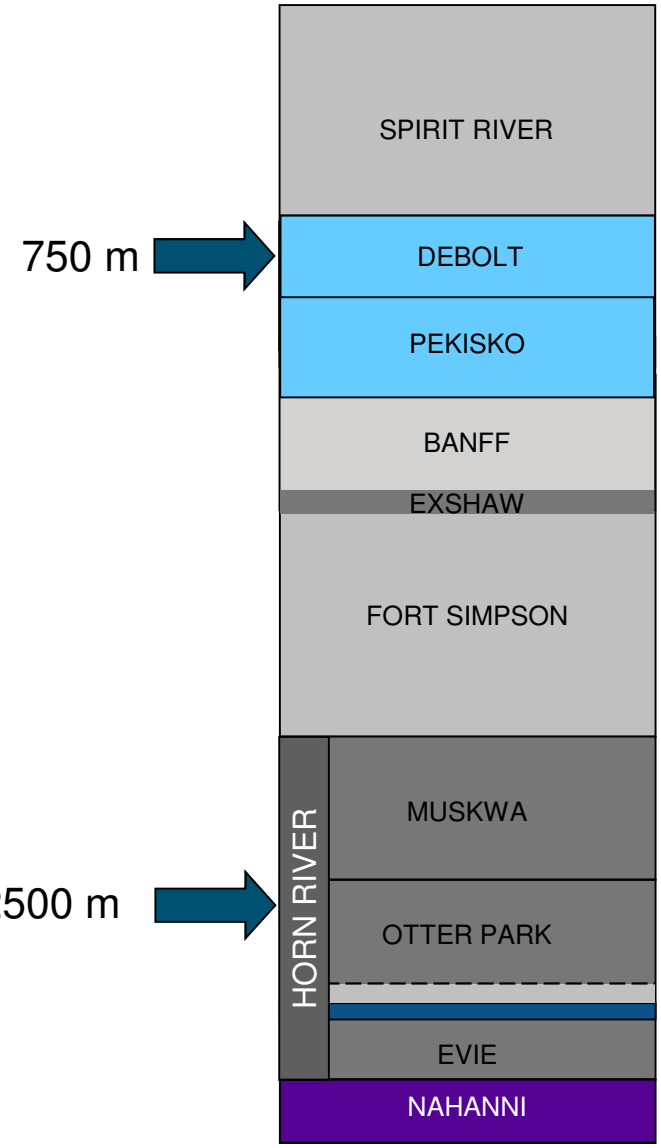
- Shallower, high-perm, carbonate horizon
- 65 ppm H_2S concentration
- Sufficient water to frac more than 2000 wells
  - Assume 1% RF of 1.87 x10^{10} m^3 total water & 4000m^3/stage & 20 stages/well



Debolt WPV. CI=1m.
calculated for HRB inside heavy line.

Volume

Stratigraphic Chart



Past – Pilot Phase

- Pilot test – March 2009
- Innovative solution to reduce dependence on surface water by treating Debolt
- First in industry
- Flow test – 600 m^3/d
  - Debolt reservoir a viable long term water source
  - Test water chemistry
  - Monitor reservoir characteristics
- Verify scaling tendencies
- Establish effectiveness of process to remove H_2S

Present Strategy

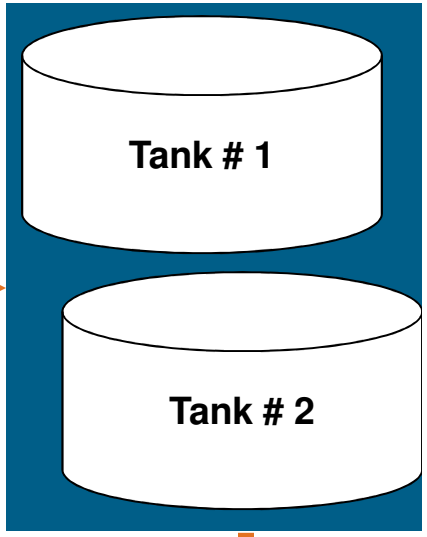
- Proved Debolt water as a viable source
  - Complete removal of H_2S
  - Irreversible removal of H_2S
  - No Solids
  - Fast and selective
  - Meets spec requirements
  - Closed system
- Debolt treatment plant
  - Process 16 000 m^3/d
  - Stripping, degassing and polishing
- Water source/disposal wells
  - Three electric submersible pumps
  - 5000 – 8000 m^3/d
  - Two disposal wells

Installing an ESP

Water – Process Flow

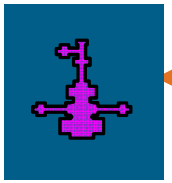
2 – ESPs
(5,000 – 8,000 m^3/d)

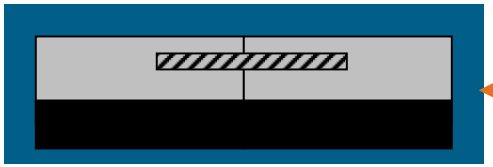
Water Treatment Plant



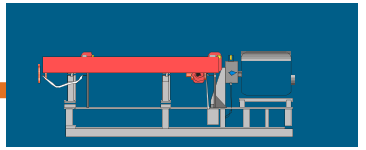
Water Storage

Disposal





Frac Location

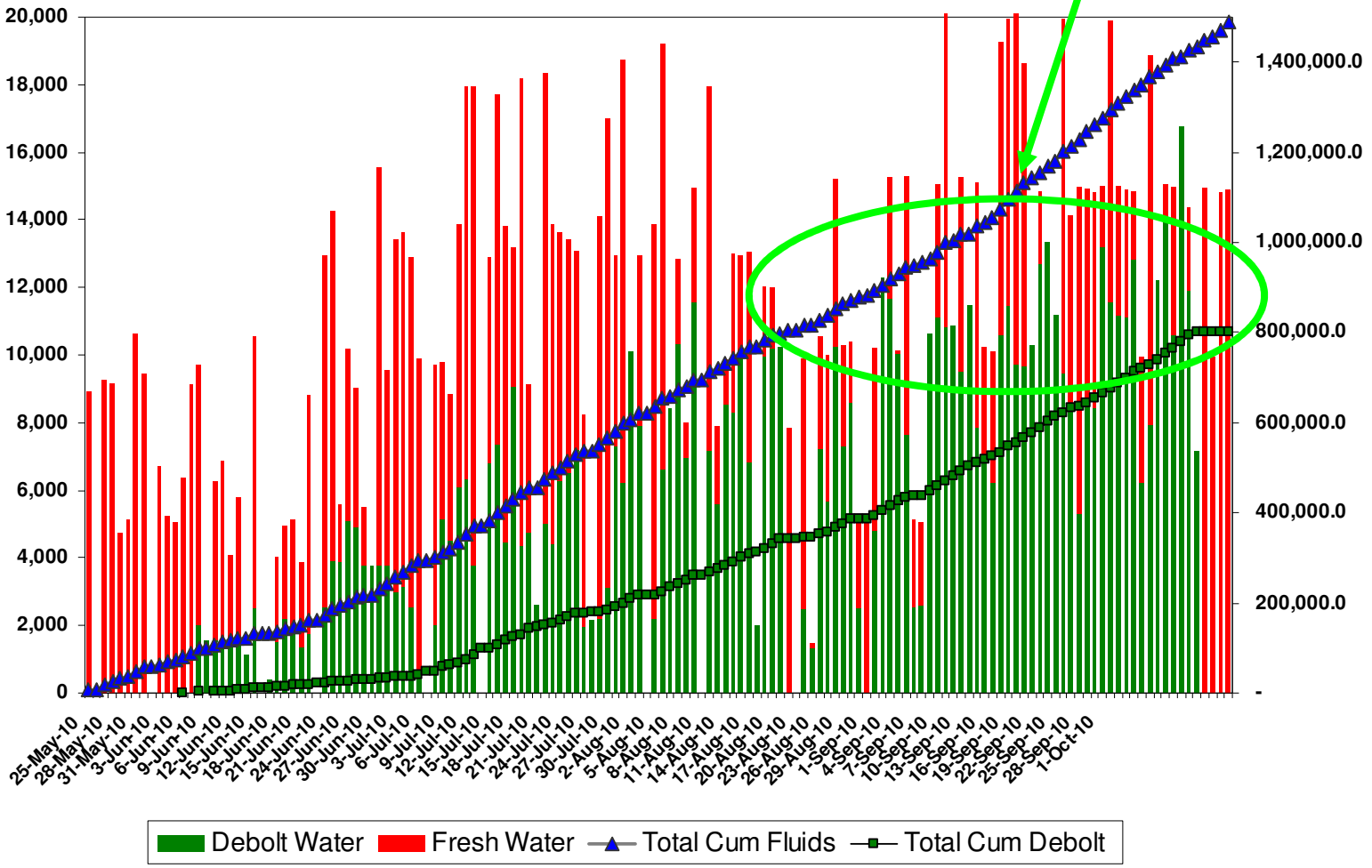


Frac Pump

Debolt Water Plant

Encana 63-K Pad
Debolt Success Story

75~80%
Debolt water

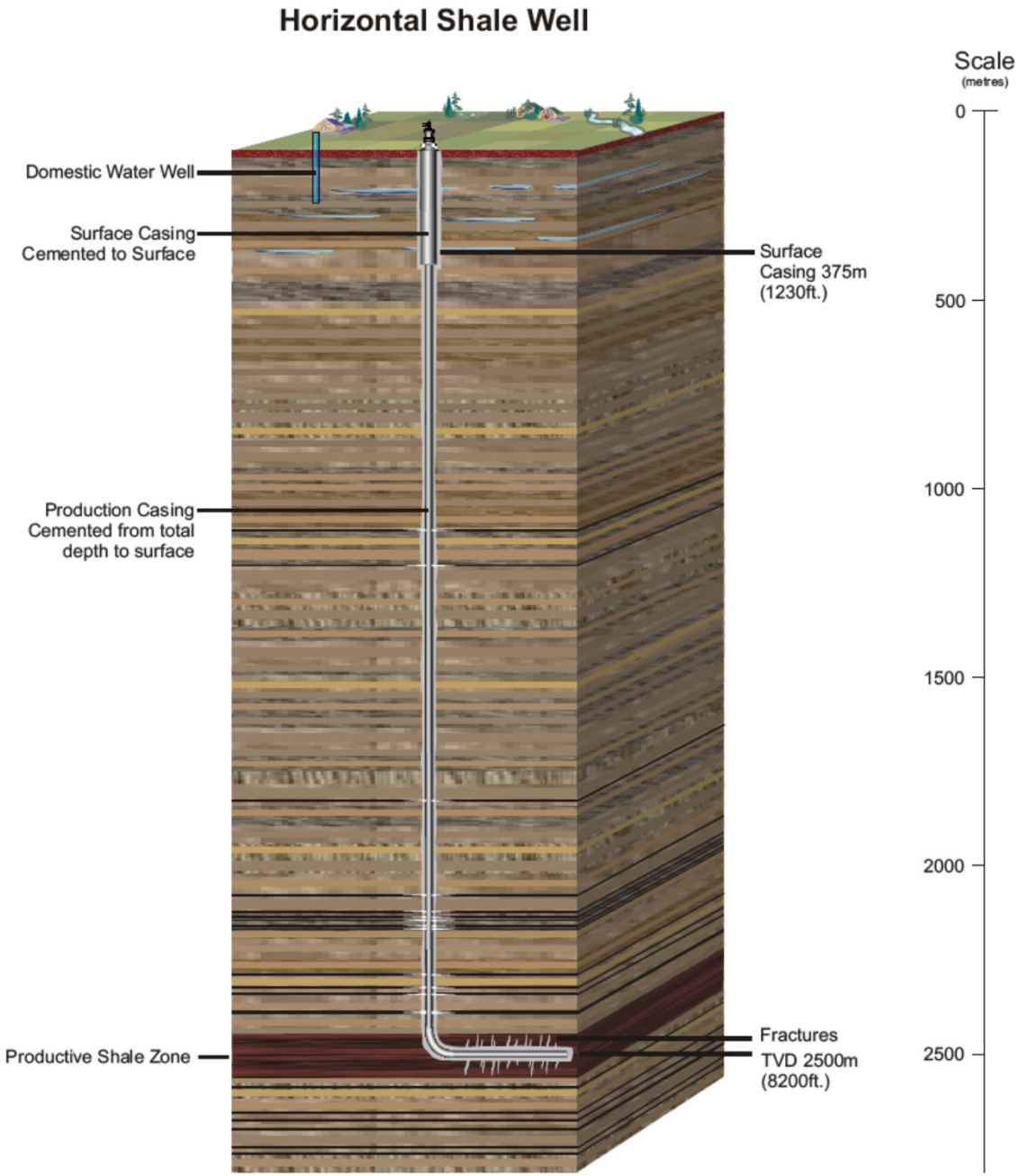


Total Frac Water Pumped Since frac start date: 1,497,202m3 (54% Debolt)

Average water pumped per day (last 30 days): 13,974m3/day

On scale with the largest water floods in Western Canada

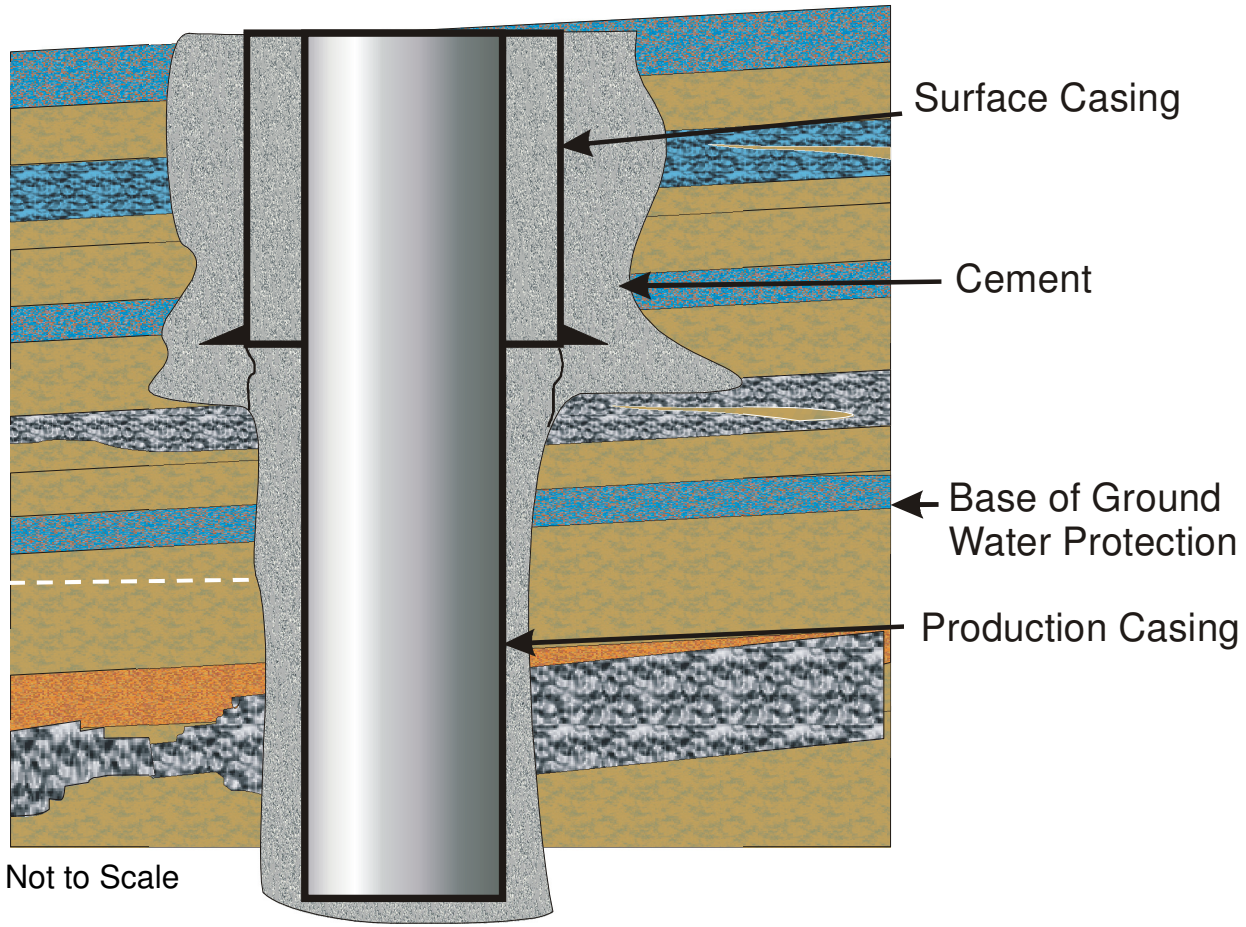
Isolating the Ground Water



Drilling and Completions

How do we protect groundwater?

- **Cement used to seal casing to formation**
- **Cement prevents fluid (gas/water/oil) movement outside the casing**




Questions?