



STRENGTH

STRENGTH IN LEADERSHIP

SHALE PLAY TRENDS MONTNEY / HAYNESVILLE FOCUS

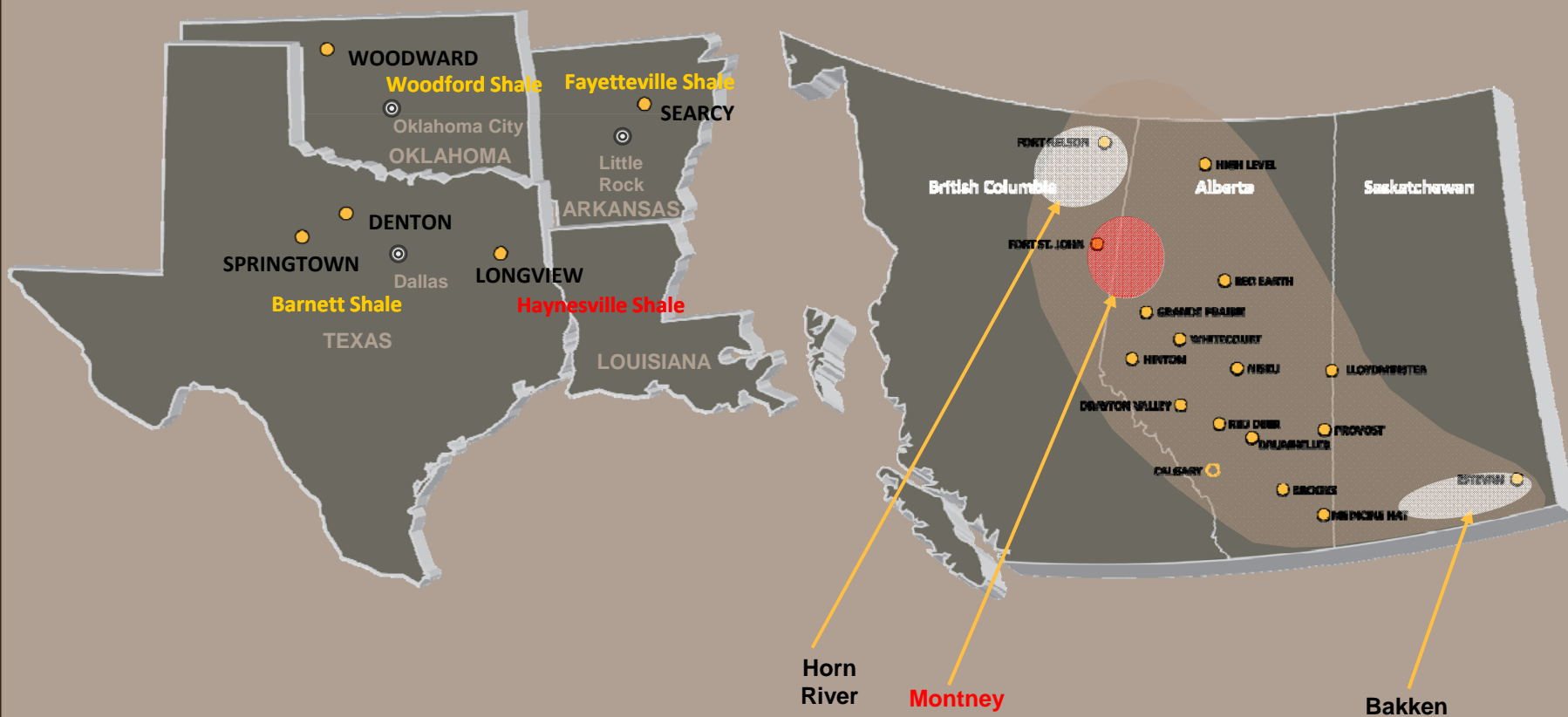
Peters & Co. Limited – 2010 Lake Louise Energy Conference
January 27-29, 2010

TSX Listing : TCW
Trican Well Service Ltd.
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Major Shale Plays

TRICAN

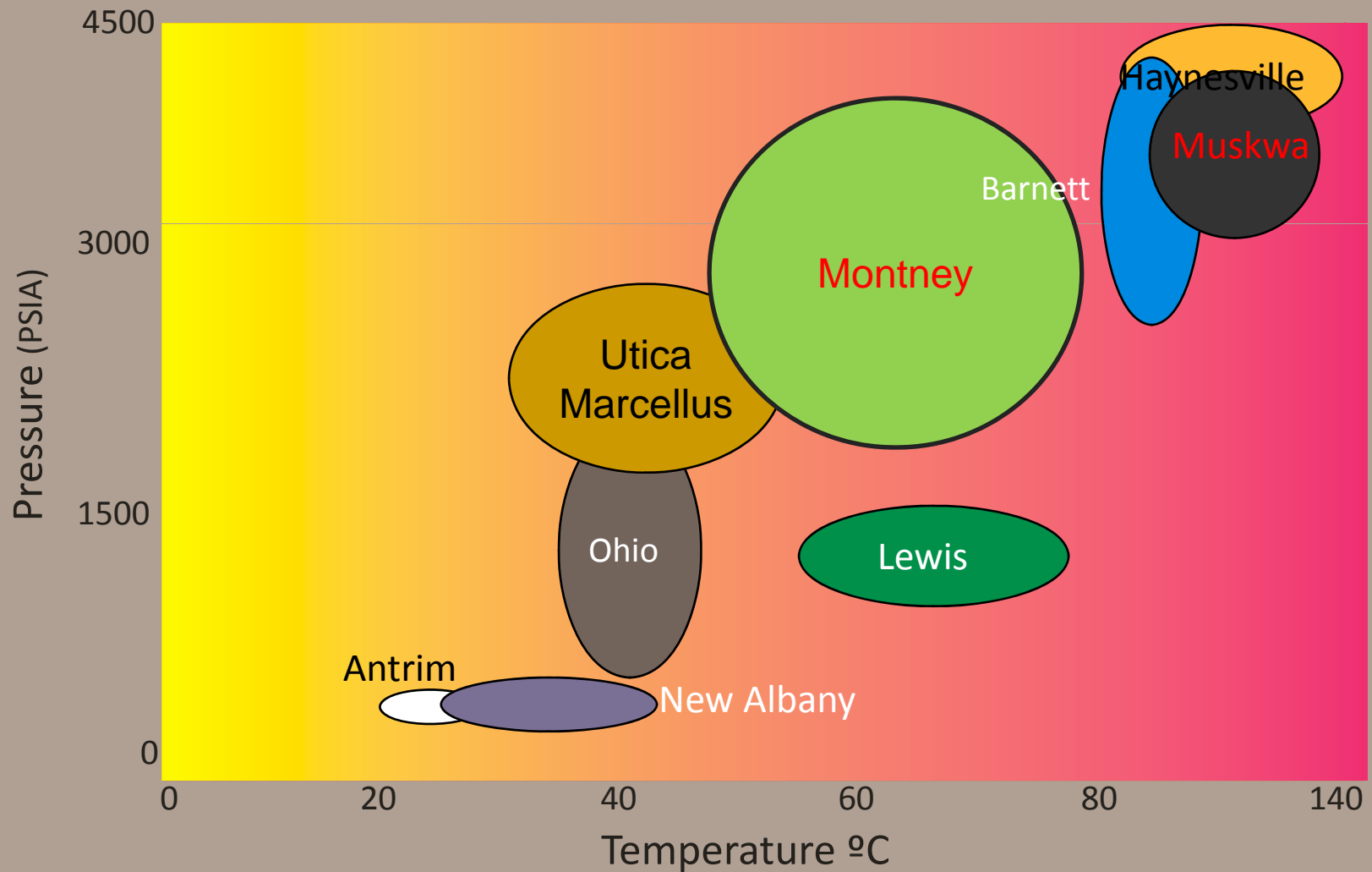
WELL SERVICE LTD.



Major Shale Plays - Haynesville

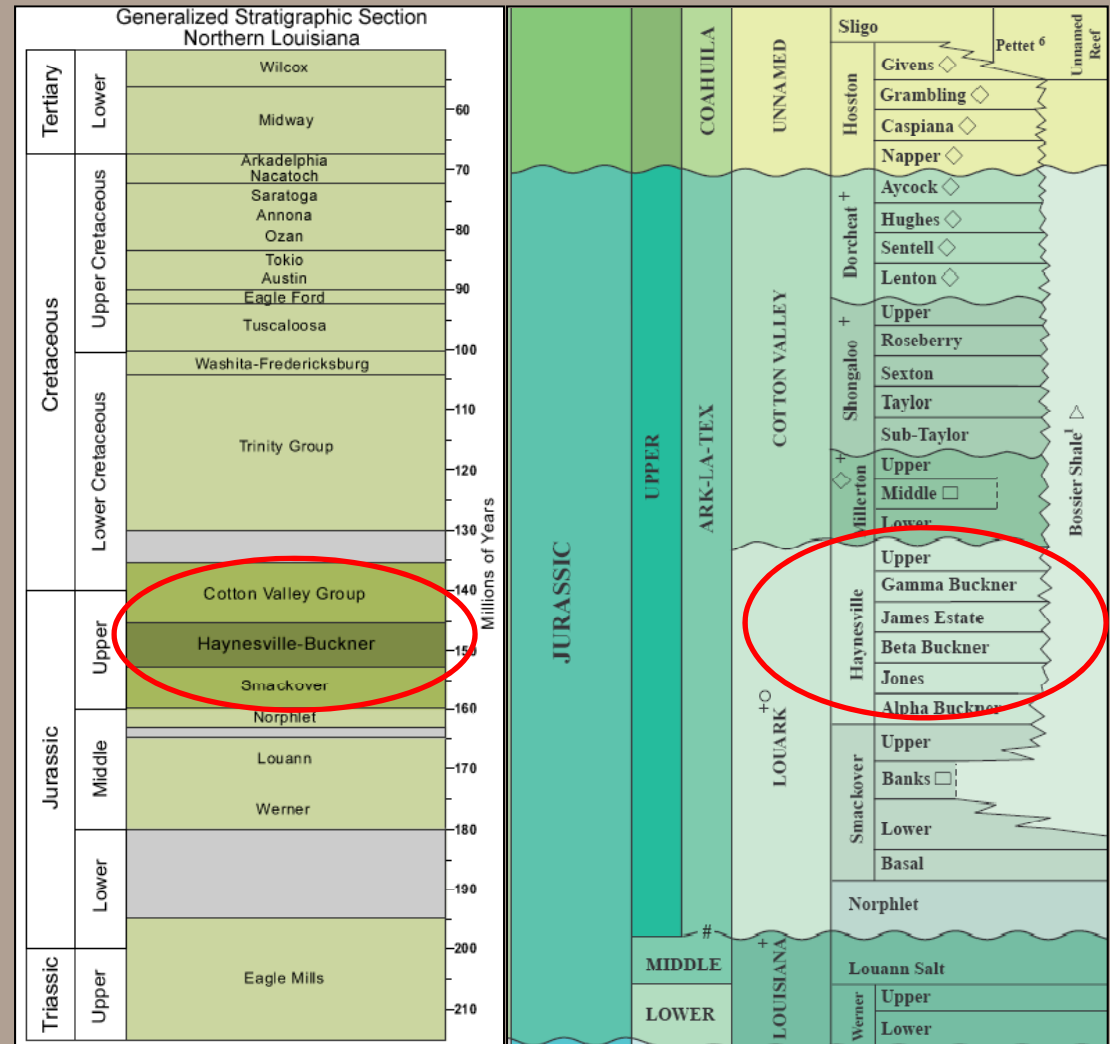


Pressure & Temperature Space of Producing Shale Gas



Some Haynesville Shale Facts:

- 11500 – 13000 feet (3500 – 4000m) deep
- ~300°F (149°C)
- 200+ feet thick
- Very tight perm
- Many gas charged zones above the HS
 - Cotton Valley (U & L)
 - Hosston (Travis Peak)
 - Pettet



- The Haynesville shale evolved over 2008
- The NW Louisiana Haynesville shale covers **over 3 million acres**
- Total resource estimates of **160 Tcf in place**
- Very nasty operating conditions: **very high pressures and temperatures**
- It is now recognized as the fourth largest gas field in the world



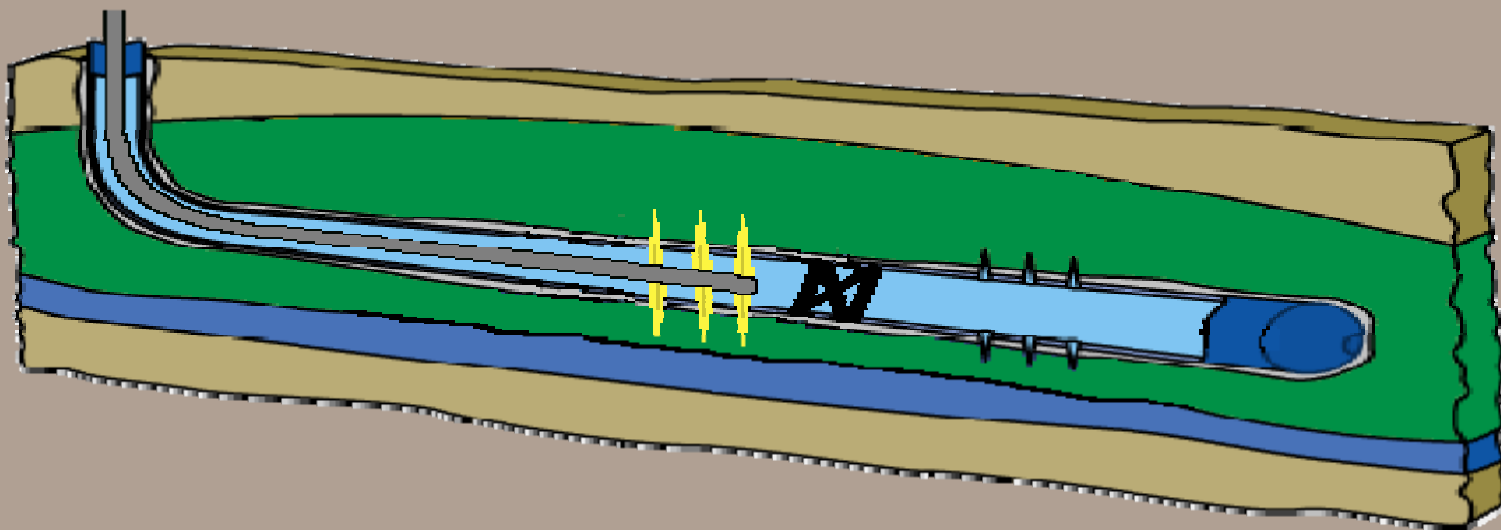
modified in part from American Exploration investor presentation, 2009

- Deep, hot shale
 - 3400m TVD / 160°C
- High clay content
 - Proppant embedment potential
 - Fluid swelling potential
- High pressure equipment
 - 15,000 psi pumps and piping
 - 40,000 HHP per job
- Higher level of technology, but still experimenting



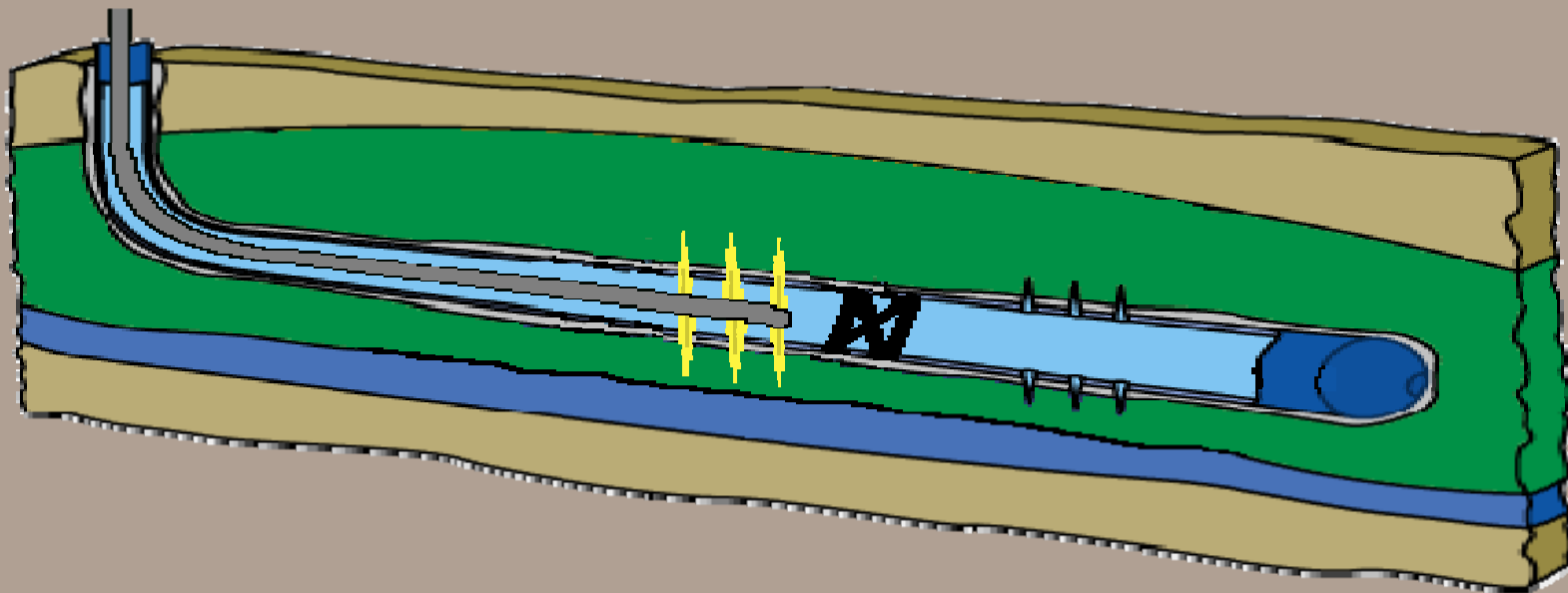
Haynesville Highlights

- Typically plug and perf completions, 12-14 stages per wellbore
- 14 m³/min frac rate (40,000 HHP)
- Slickwater / Linear Gel and Hybrid fracs
- Moving away from high-strength proppants to natural sands / resin-coated
- 100 mesh (35 tonnes) and 40/70 proppants (90 tonnes)

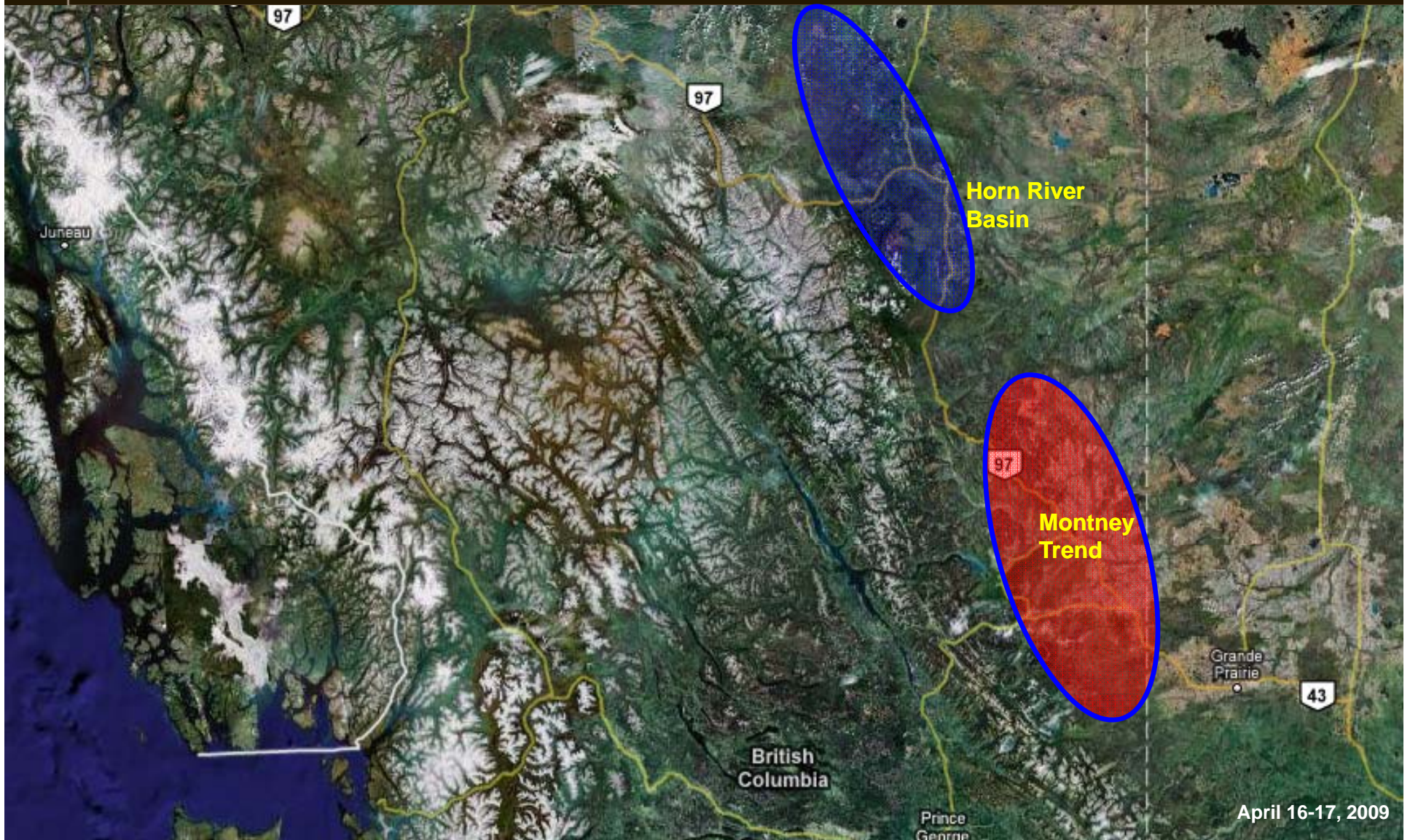


Haynesville Highlights

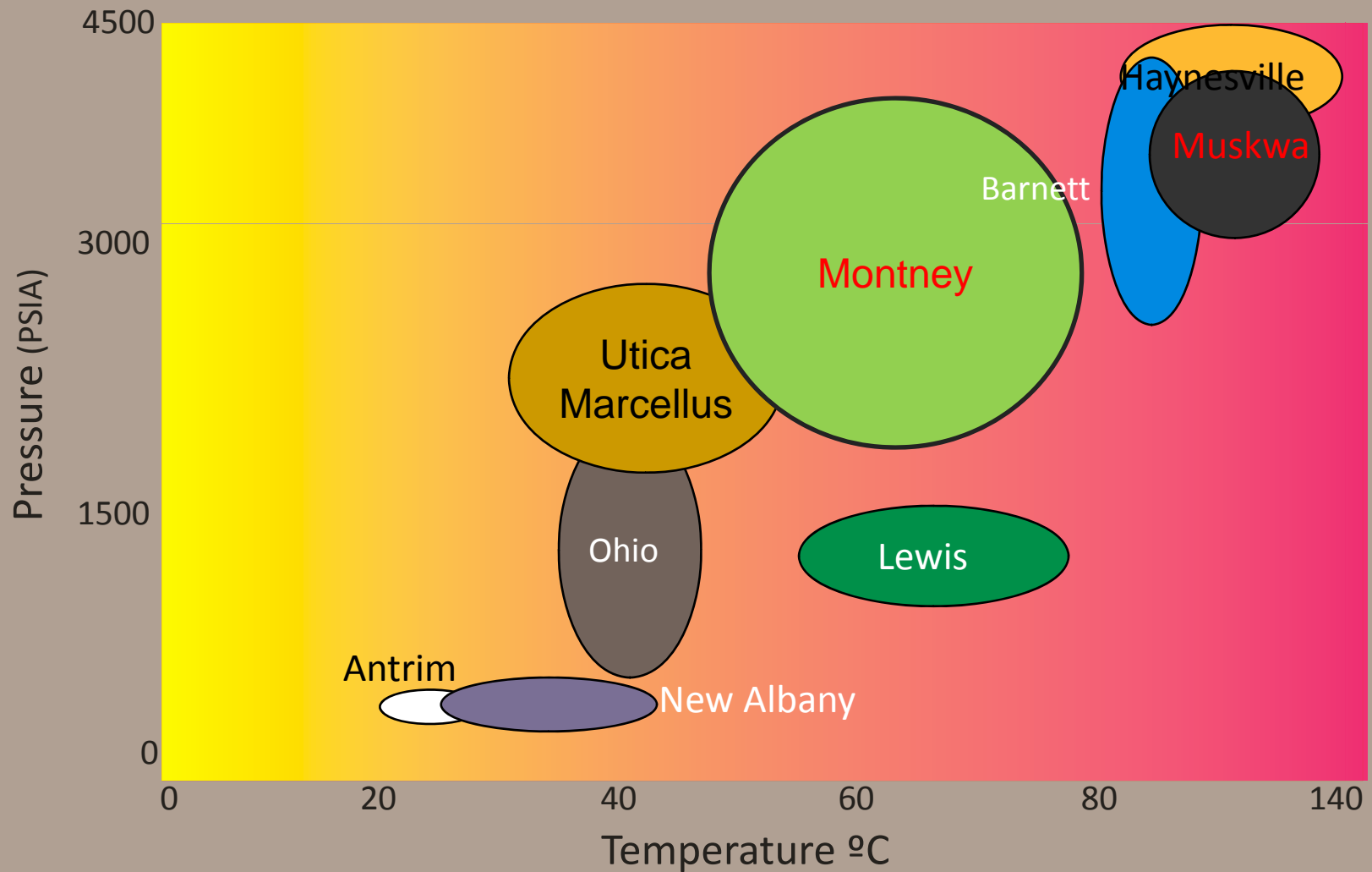
- IP's of 13 – 20 MMSCFD
- High decline rates
 - Down to 2 MMSCFD after 12 months (~80%)
 - Down to 1 MMSCFD after 30 months

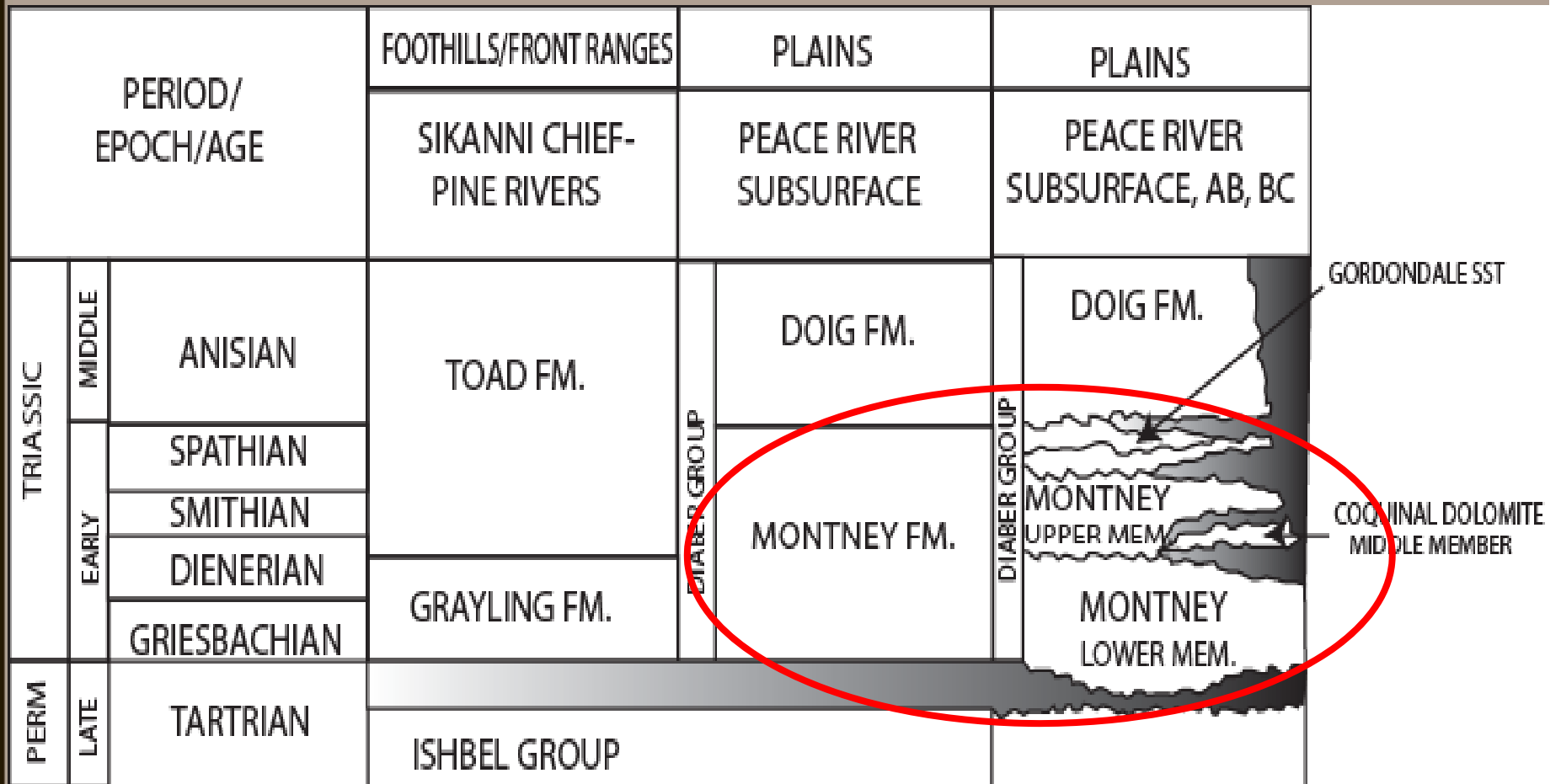


Shale Gas in British Columbia



Pressure & Temperature Space of Producing Shale Gas





upper

- Higher permeability / better rock
- 20 kPa/m Frac Gradient
- N₂ capable

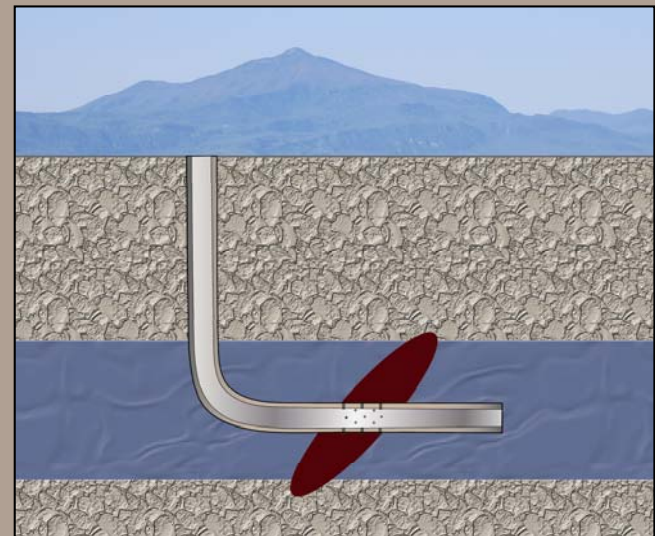
2400mTVD

lower

- Lower permeability / higher pressure
- 24 kPa/m Frac Gradient
- Favors CO₂ over N₂

Montney:

- More conventional fracturing designs: vertical bi-wing fracs
- CO₂ Emulsions, Nitrogen Foams, Gelled Water Systems, Gelled HC Systems, Slick Water / Gelled Water Hybrids
- 10 – 12 x 100 tonne fractures per well
- Medium sized sand – 20/40 mesh



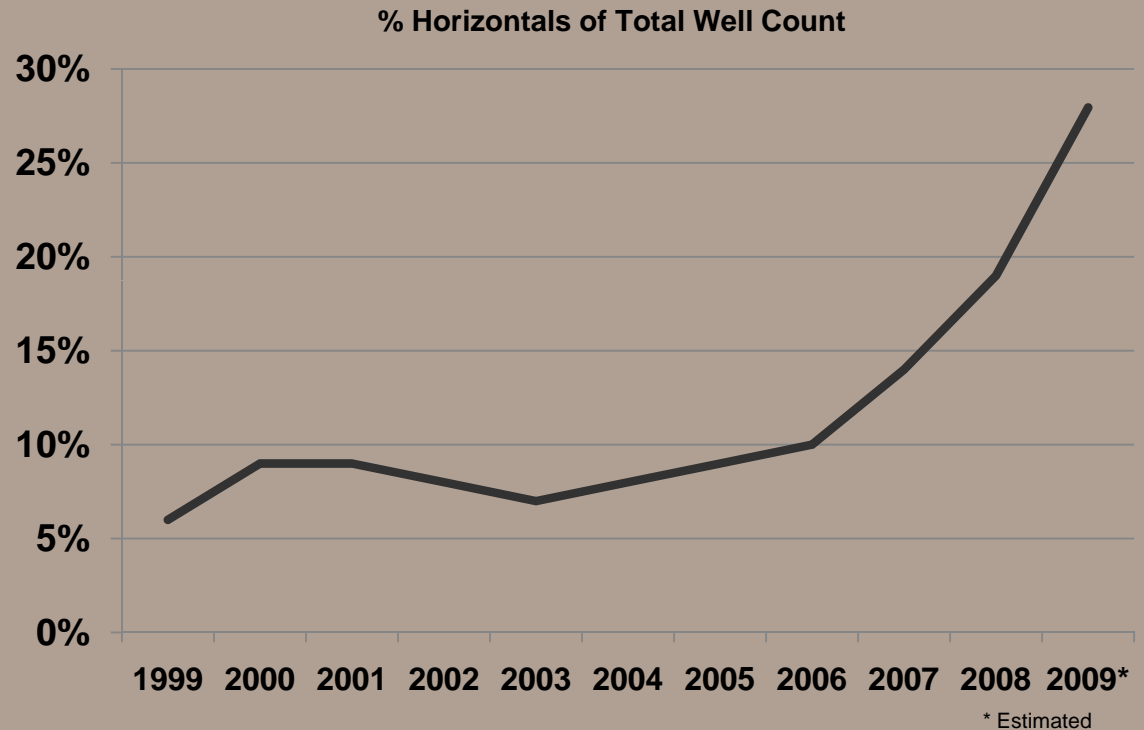
Montney Highlights:

- High decline rates with stabilized long term production
- Dramatic increase in initial production and long term stabilized rate through application of horizontal drilling
- Significant growth of monthly gas production due to horizontal drilling and overall industry activity in this sector
- Most new wells are horizontal with IP rates averaging 3-5 MMcf/d
- Economic even at lower commodity price due to established infrastructure and declining D&C costs
- ONE OF THE LOWEST F&D COST SHALE PLAYS

- Horizontal fracturing changing market
 - Fracturing volume no longer tied to rig count

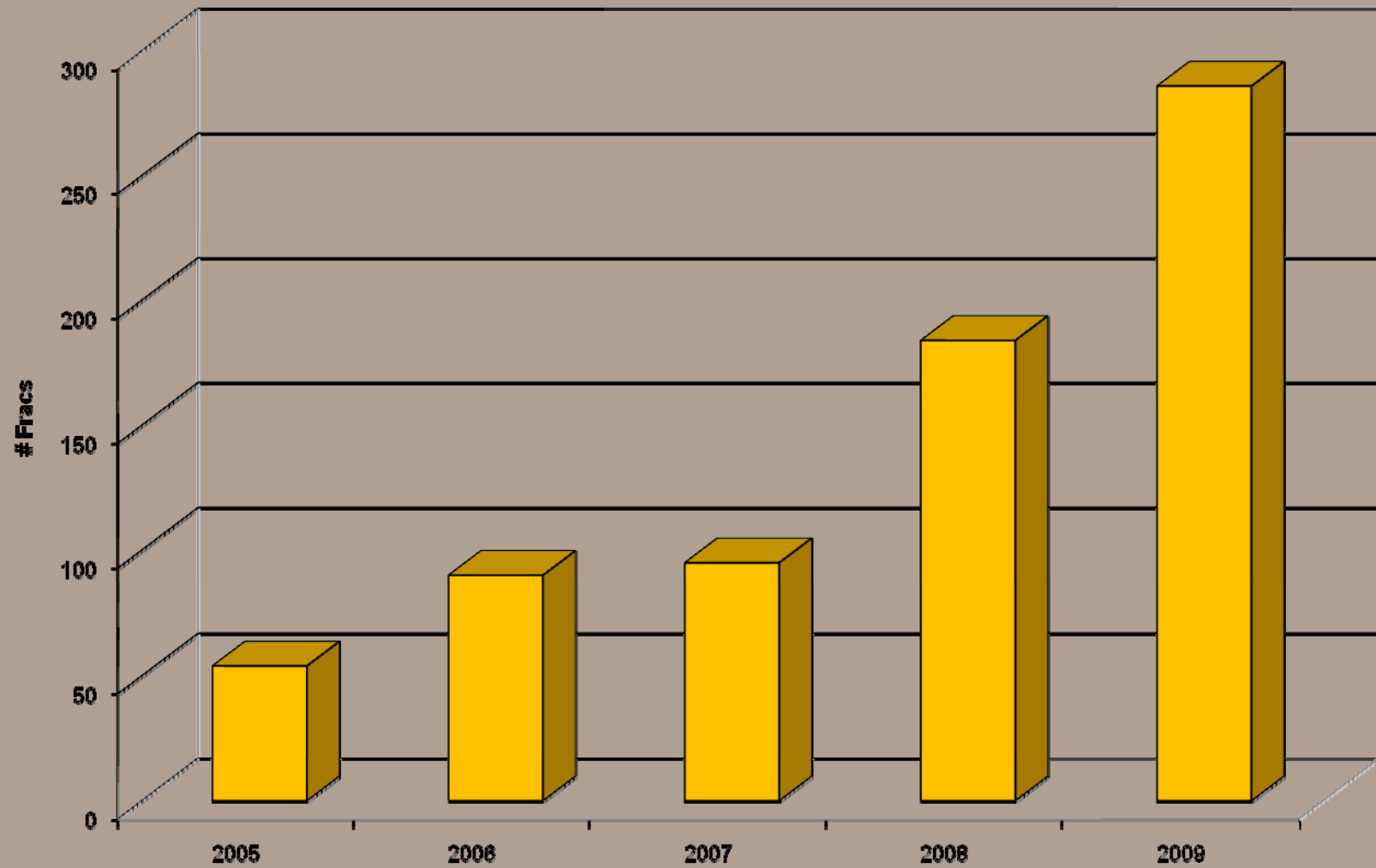
- Increase in reservoirs being horizontally fractured
 - 2008: 5 reservoirs
 - 2009: 25+ reservoirs

- Customers trying horizontal technology on most reservoirs



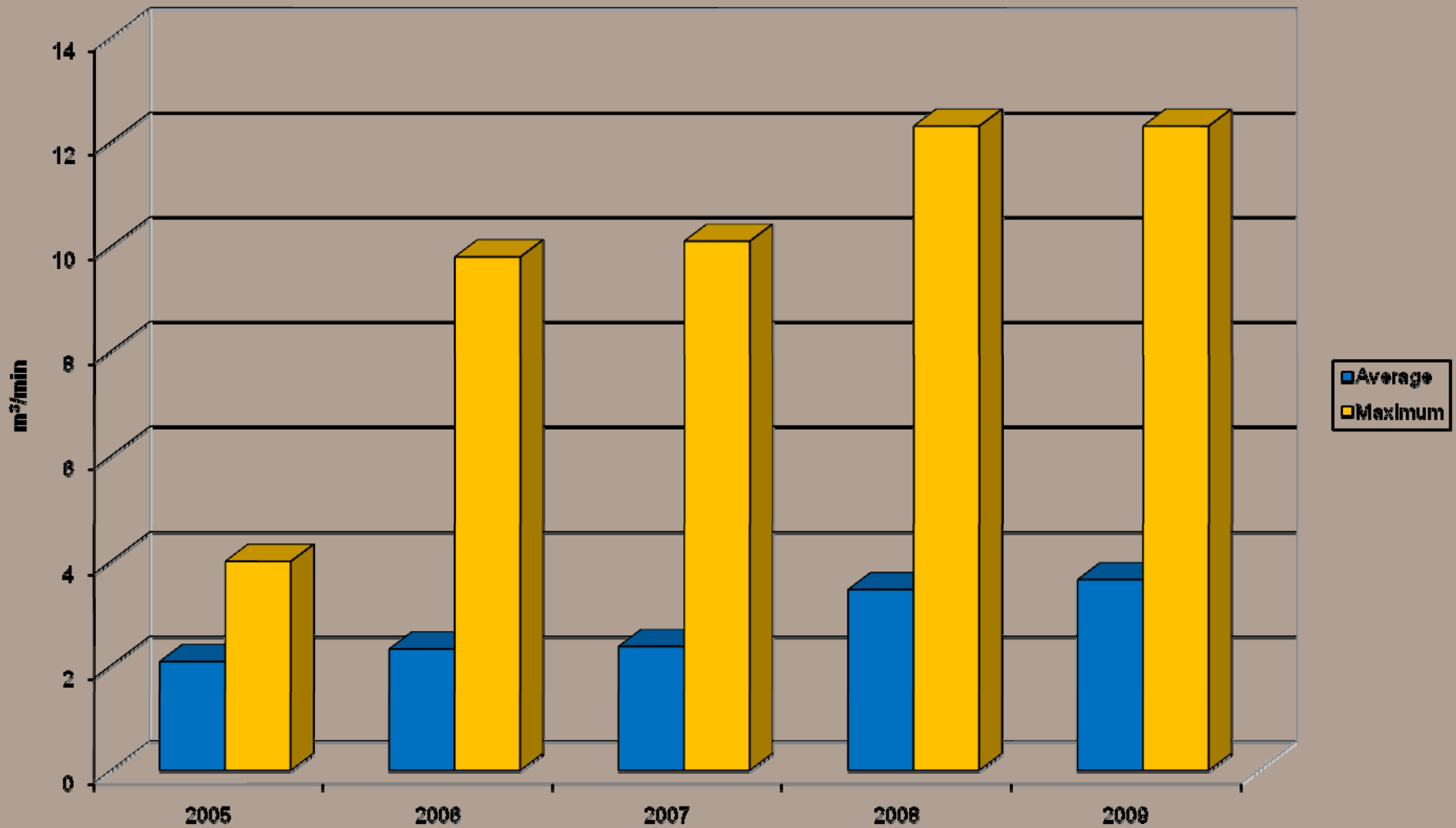
Montney Frac Activity

Trican Montney Frac



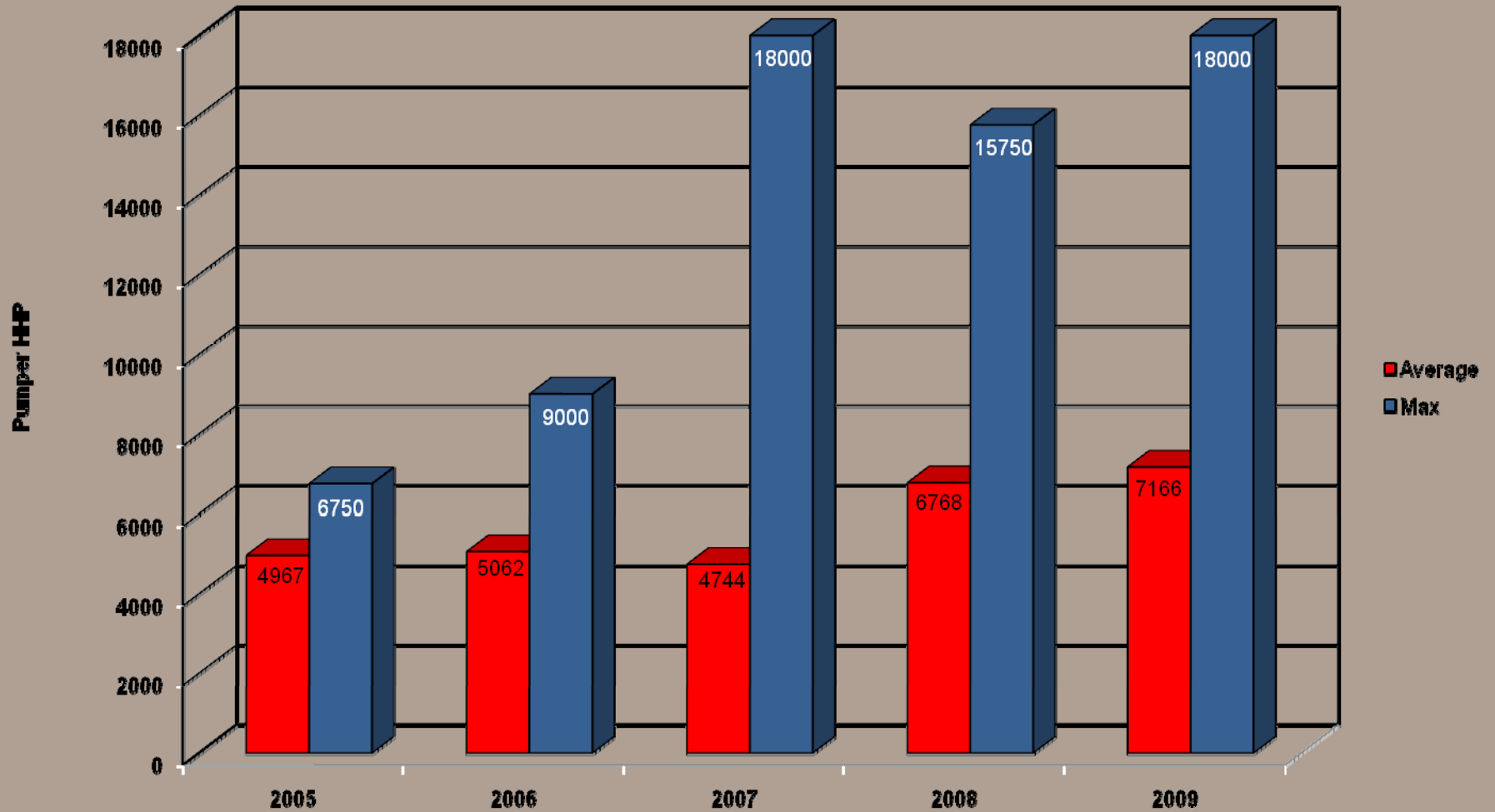
Montney Pump Rate Trends

Montney Frac Rates



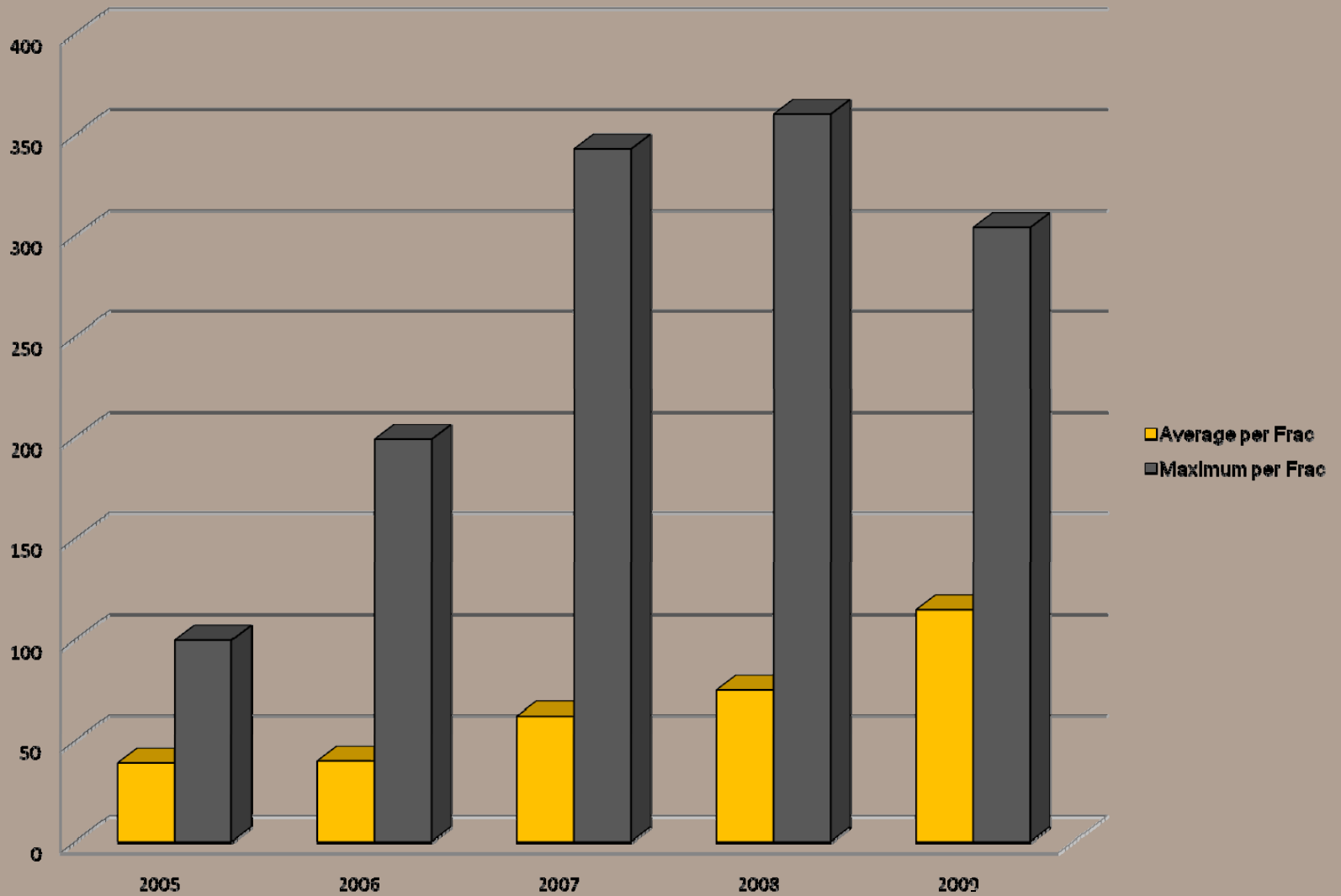
Montney Frac Power Requirements

Montney Frac Power Requirements

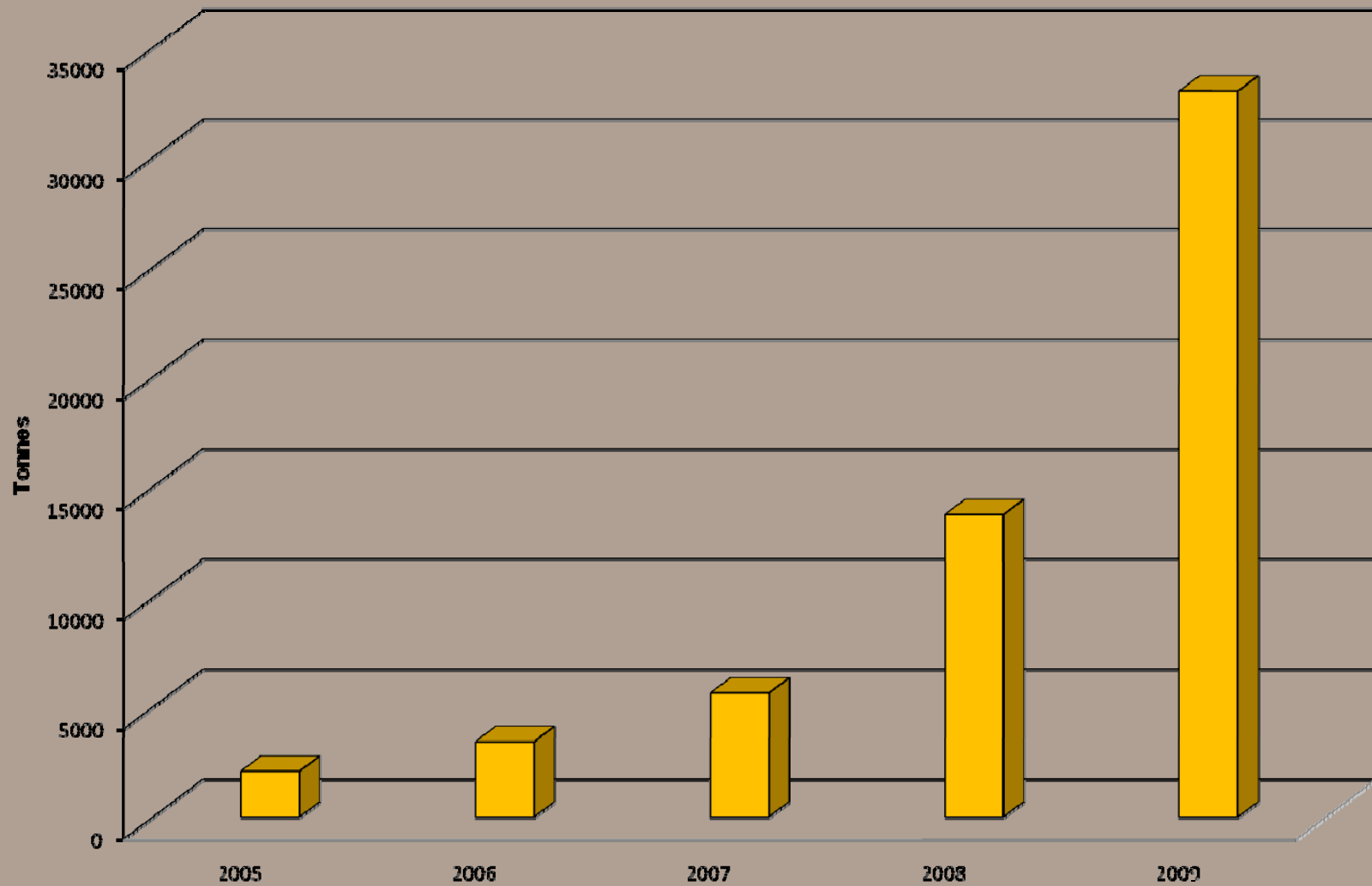




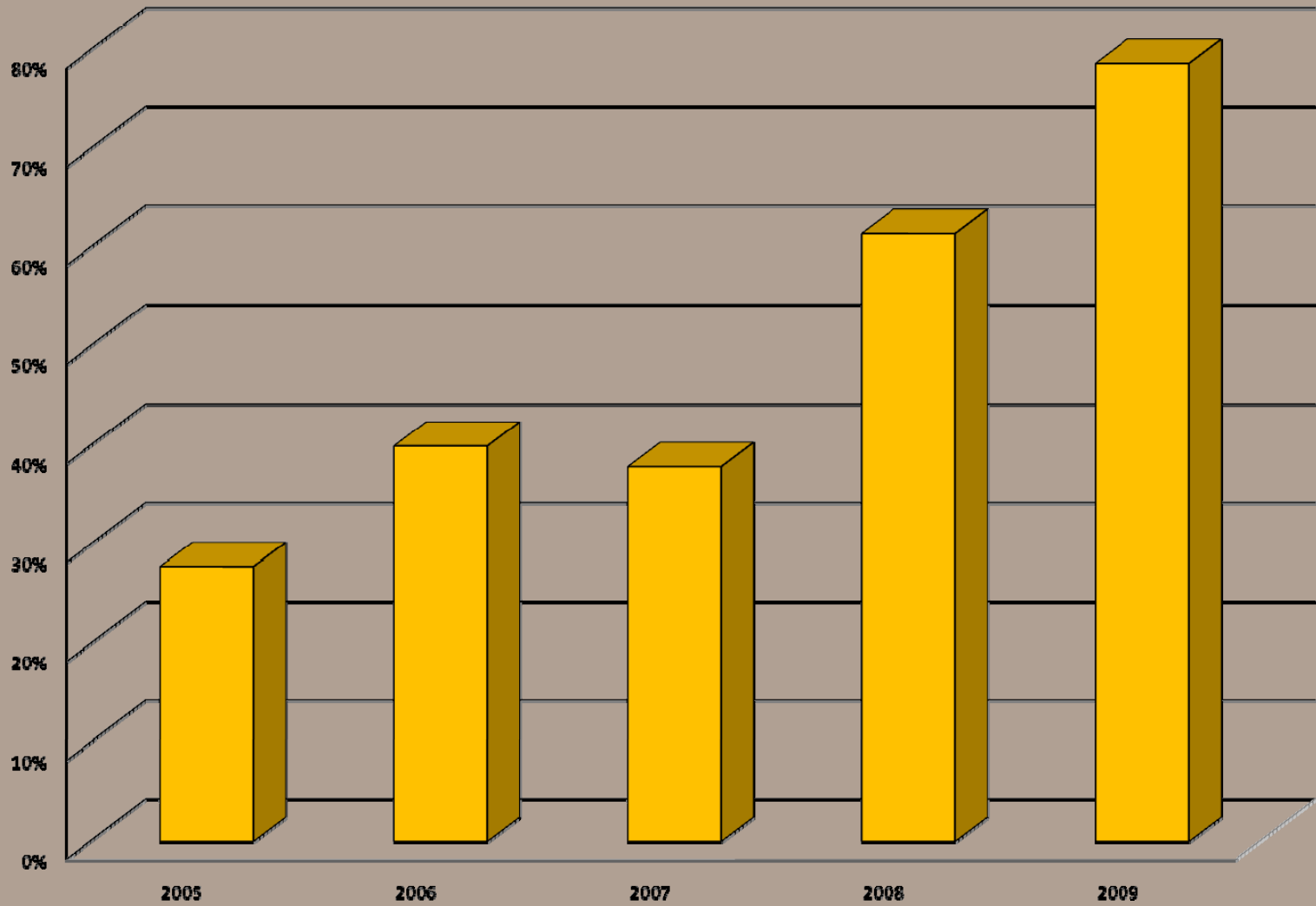
Proppant Requirements - Per Frac



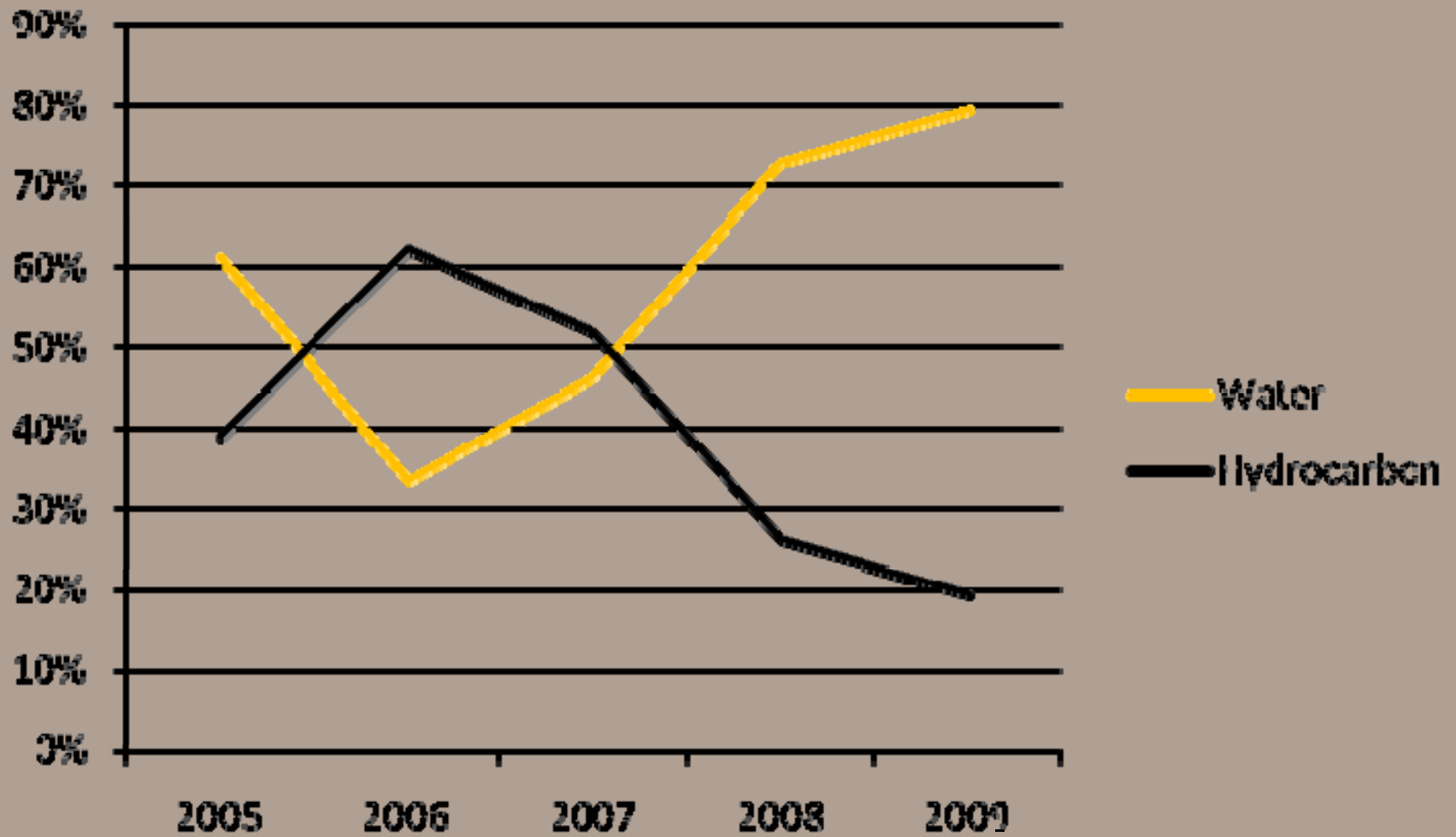
Total Montney Proppant Tonnage - Annual



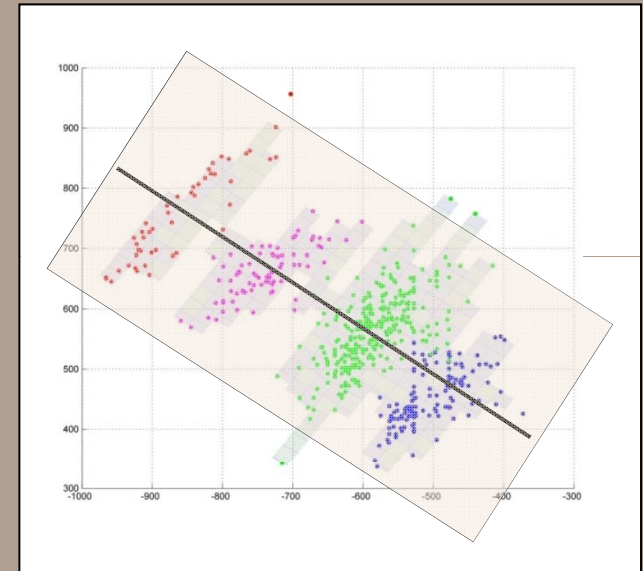
% Energized Fracs (Montney)



Montney Base Fluid Trends



- Integrated Solutions
 - Understand the rock – shale gas geological analysis
 - Fracture Mapping thru micro seismic
 - Reservoir drainage analysis
 - Integrated geological, fracture mapping, reservoir, and stimulation solutions
- Optimizing horizontal length, fracture size and number of fractures to effectively produce reservoir
- Development of unique fluid systems
- Water management





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