

Montney Gas Processing Study



GPAC/PJVA 18th Annual Joint Conference
TELUS Convention Centre

- 1) The Challenge**
- 2) An Alternate Perspective**
- 3) Montney Study**
- 4) Future Studies**
- 5) Conclusions**

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Presented by: Bill Armstrong, P.Eng., Principal, GPMi

R.N. (Bob) Child, P.Eng., Principal, GPMi

November 10, 2011

The Challenge

Industry needs to

- utilize the available capacity and coordinate the development of new area infrastructure
- change a set of behaviours and attitudes that have developed over 50 years are still at play

Strategic area perspectives and analyses are required that are based on:

- An area of analysis beyond single or multiple plants and operators
- A sound well developed resource forecast
- A detailed and comparable infrastructure analysis; gathering and processing and take away
- A logical development and repositioning infrastructure analysis with a well defined “prize”
- Fair and workable commercial solutions

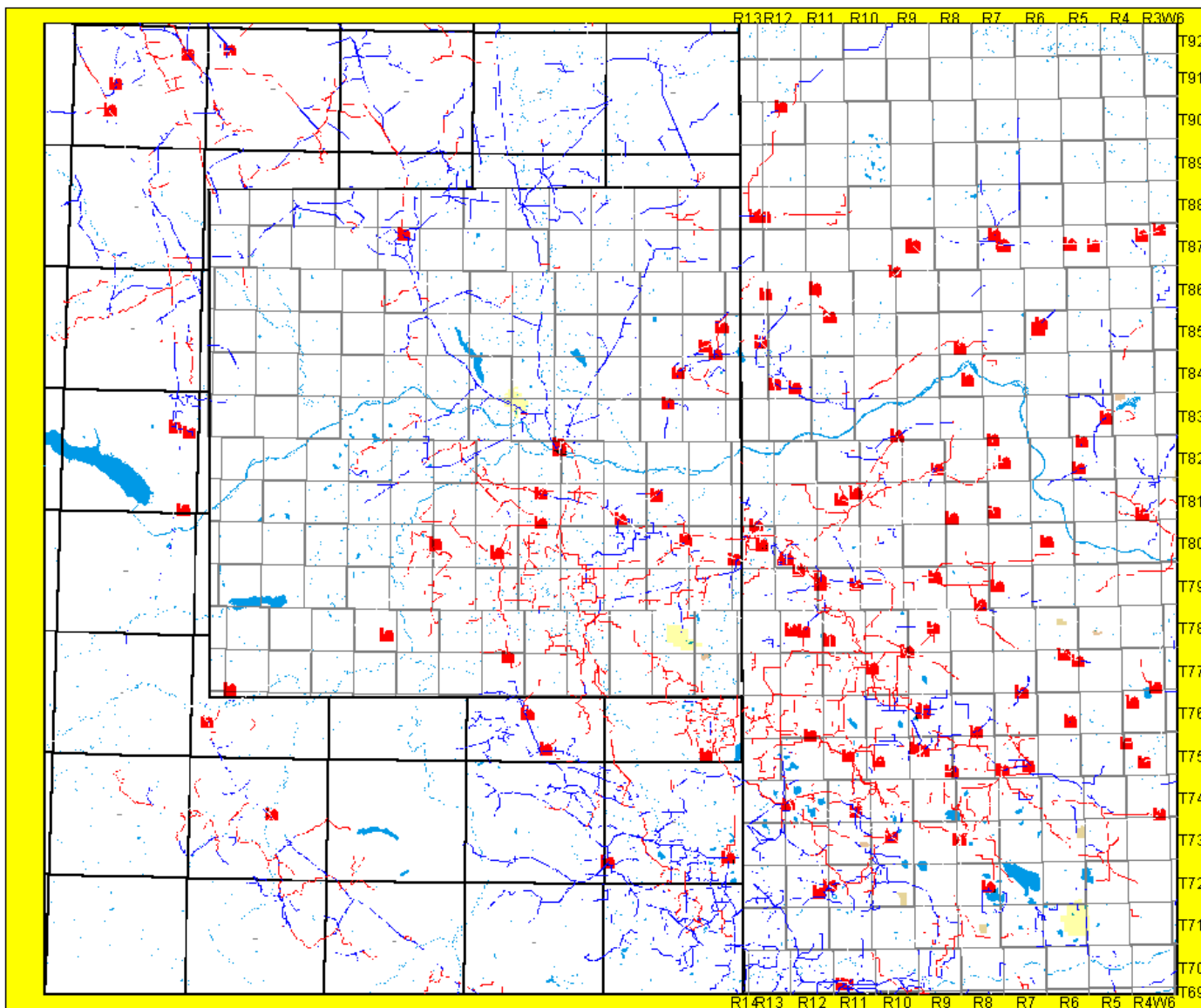
If a single entity owned it all (infrastructure and resources) how would they develop and optimize it?

NORTHERN FOOTHILLS (Northeast B.C. and Northwest Alberta) GAS INFRASTRUCTURE REPOSITIONING STUDY

MONTNEY GROWTH

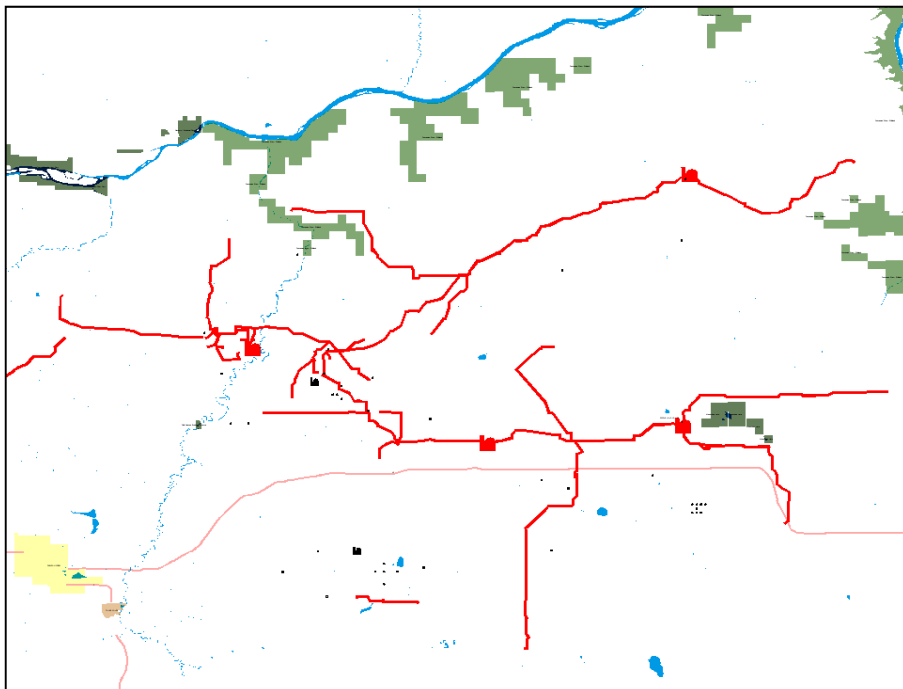


Area Infrastructure



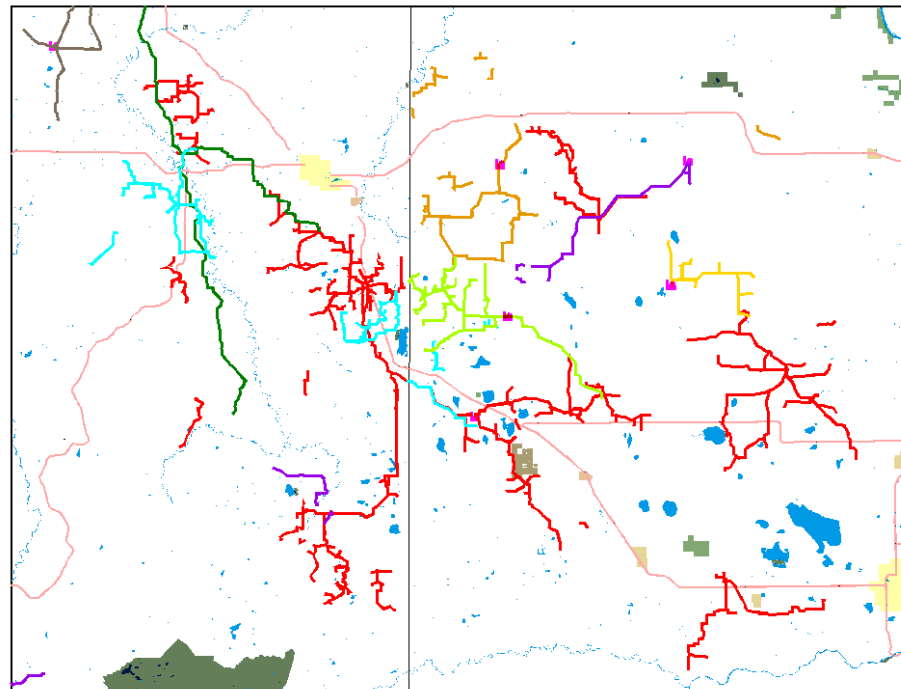
Infrastructure Development Two Approaches

Common Approach to Development



Multiple Plants common operator
More flexible gathering systems
Allows a coordinated approach to future development

Independent Approach to Development



Multiple operators and independent developments
Overlapping gathering systems
Developers have several choices but likely few options

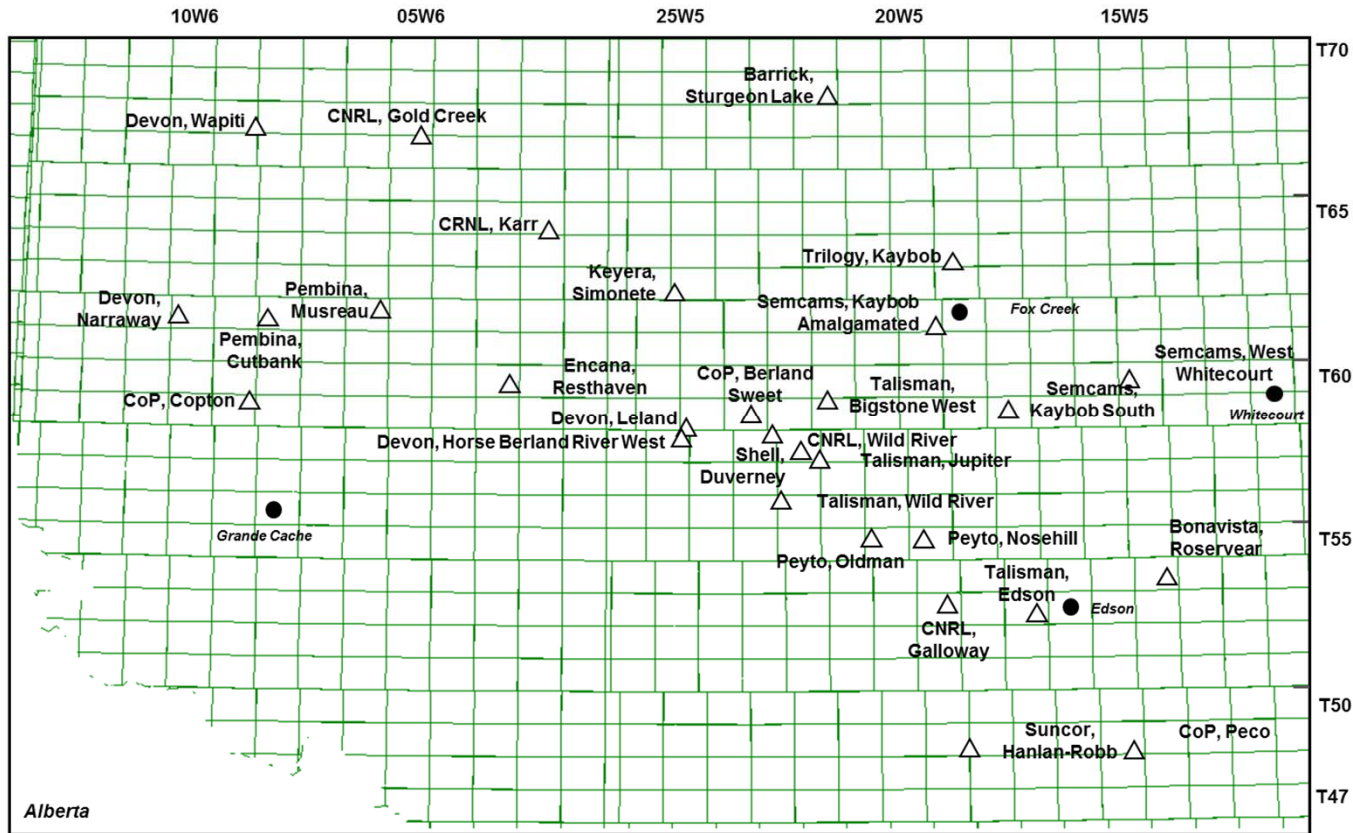
Learning's Anticipated from Alternative Perspectives

- A common/coordinated owner/operator approach will:
 - See the bigger picture; understand the longer term strategic view
 - Develop the size of the entire prize rather than a portion of the prize
 - Determine if the prize is large enough to develop a coordinated approach to develop infrastructure
 - Execute the project

Types of Solutions

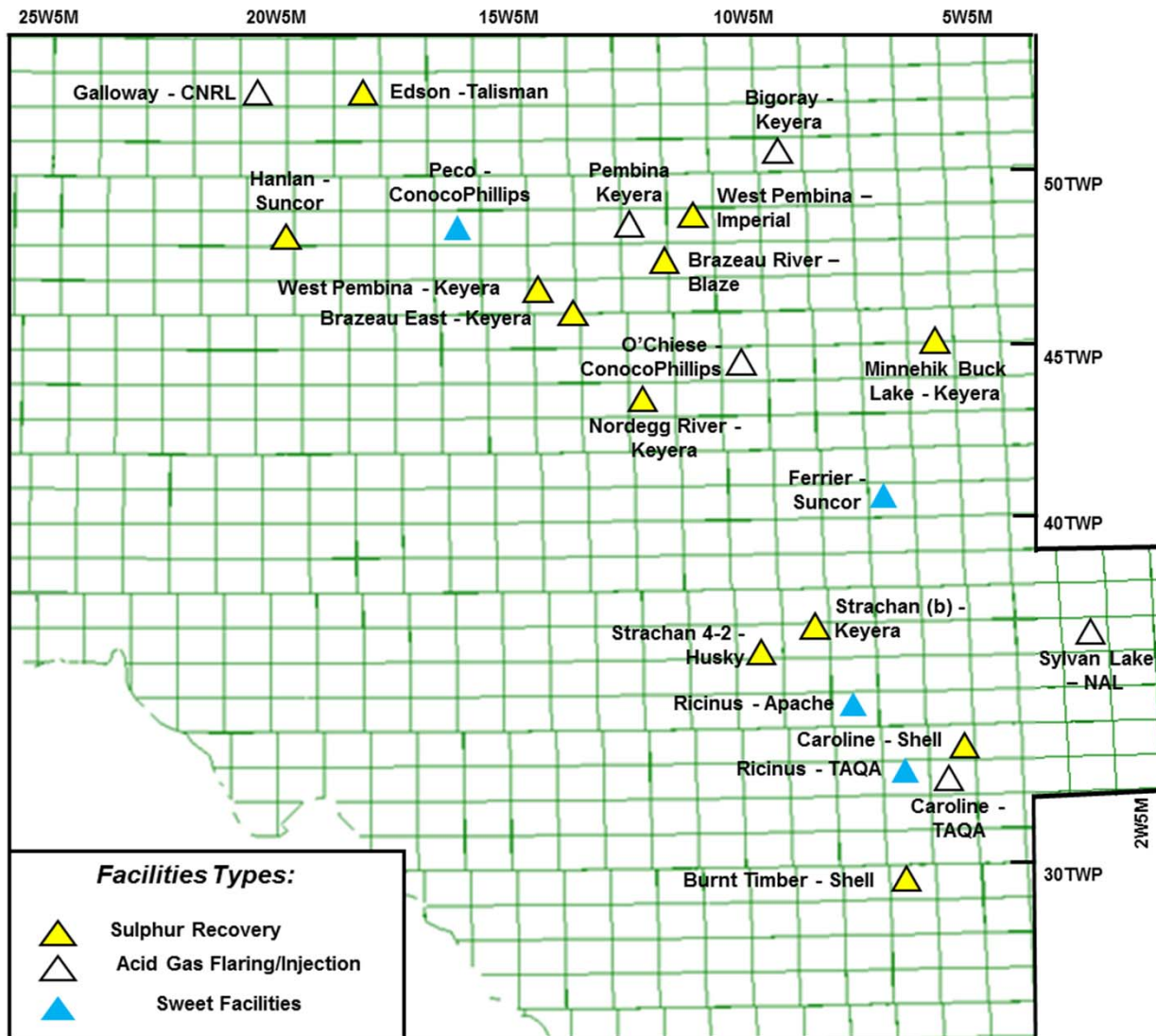
- Utilize, reposition and consolidate existing infrastructure
- Construct new trunk lines and evolve the use of exiting Gas Gathering Systems
- Develop new area Gathering and Processing infrastructure
- Identify Take Away infrastructure issues
- Define logical changes and development plans
 - That optimize capital and operating expenses
 - That make business and commercial sense

Kaybob Study: Area 2



- Complete by March 31
- Supported by four large area operators and developers
- Others Considering

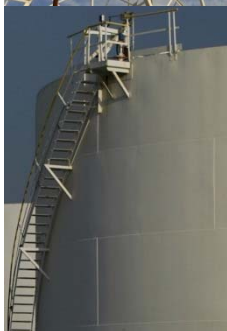
Caroline Study: Area 3



- In the planning stage

Conclusions

- We strongly believe there are alternative approaches to develop the infrastructure required for the evolving resource plays
- We also believe that alternative approaches are essential to:
 - Avoid or at least reduce over capitalization
 - Be competitive with other emerging North America basins for market access



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