Oil & Gas Development in Colorado:  
*Current Issues and Lessons Learned*

DAPL – March 16, 2016
COGA

- Founded 1984
- Nationally Recognized Trade Association Focused on Issues in Colorado
- Over 330 Member Companies
  - Major and Independent Oil & Gas Companies
  - Service Companies
  - Mid-Stream Companies
  - Support Services
Issues Facing Industry

- Pricing Environment
- Public Narrative
- Political Developments
Colorado’s O&G Industry

- 52,000+ active wells
- $1.2B in public revenue
- $15.8B production value in 2014
- $4.1B in employee income to CO households in 2014
- $31.7B in total economic output
- 102,700 direct and indirect jobs in Colorado
- Average annual wage for direct employee is $105,000 – 50% higher than the state average for all industry
- $160 Million in state royalties, rents, and bonuses in 2014

Sources: University of Colorado Boulder Leeds School of Business Research Division Oil and Gas Industry Economic and Fiscal Contributions in Colorado by County, 2014 - Published December 2015
Average household energy costs in Colorado ($1,551 per year) are 23 percent less than the national average, primarily due to historically lower natural gas prices in the state, according to EIA's Residential Energy Consumption Survey.
Pricing Environment Impacts

Oil’s Ups and Downs
Benchmark price per barrel of U.S. crude at the end of each month

$160

140

120

100

80

60

40

20

0

'85 '86 '87 '88 '89 '90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13 '14 '15 '16

Through end of January 2016

- BP oil spill
- Arab Spring
- Iran nuclear tensions
- Financial crisis
- Operation Desert Storm
- Chinese growth takes off
- Supply glut
- OPEC price war
- Conflict in Yemen
WTI Crude Oil (Apr’16) (@CL1 : New York Mercantile Exchange)

37.37 USD  ▼ -1.13 (-2.94%)  476,598
Last | 4:59:00 PM EDT  Change  Volume

Stock Summary  Options Chain

3/14/2016 5:00 PM  Open 37.41  High 37.44  Low 37.37  Close 37.37

Today  Previous Close 38.30

5 Day

1 Month

1 Year

3 Year

5 Year

High 38.77  52 wk High 65.71  EPS --  Revenue (TTM) --
Low 36.68  52 wk Low 28.74  Market Cap --  Beta --
Volume 476.6K  YTD % Change -4.77  Shares Out --  Dividend --
10 Day Avg. Vol 562.7K  1 Yr % Change -34.20  Price/Earnings --  Yield --
The Economics of 2016

- Nine of the largest producers active in the DJ plan to invest only half of what they did this year compared with 2015
  - In dollars, the nine producers together plan to invest about $2 billion in the D-J Basin this year, down from $4.3 billion last year and $6.4 billion in 2014.

- Anadarko Petroleum and Noble Energy, who account for about 60% of the production in the basin, are planning to average only three rigs this year versus the 24 they ran back in 2014.

- According to BTU Analytics, when oil is in the low- to mid- $30 a barrel range, about 18% of the wells drilled in the DJ Basin last year are profitable
  - If prices recover above $40 a barrel, then about 40% of those wells would be in the black.

- The EIA forecasts that West Texas Intermediate crude will average $34 a barrel in 2016 and $40 a barrel in 2017 — too low to revive capital investment in Colorado's biggest oil field.
Colorado’s O&G Industry

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Public Narrative

KEEP THE FRACK OUT OF MY WATER
So How Did We Get Here?
The Perception of Concerns

“Will New York Rebel Against Fracking?” - UK Press

“Ban on ‘shale gas’ could cause cancer” - NY Times
TRUST ME, I'M A LION.
The Reality of Concerns
National Campaigns Target CO

How to Get Your Resolution Passed
to Ban Fracking

food&waterwatch

1. Have an initial planning meeting
2. Do your homework — plan a strategy
3. Initial tactic: Outreach
4. Tactic: Meeting with elected officials
5. Tactic: A hearing on your resolution
6. Follow Up

See our national petition at www.foodandwaterwatch.org or:

SAVE COLORADO’S WATER & OUR PUBLIC HEALTH!
Free concert, world-renowned speakers, good ole fashioned protesting & solutions!

FEATURED:
Jakiis Cisneros & Sara Jaffe of The Wallovers
Members of The Sanctuary Movement (pro-immigration)
Darryl Rahnah
Michael薩ms
Sustain Cambia, Scientist & Author
Leahy Mehalih, Co-founder of Colorado Free Girl
Jared Meckel, Mesa Current
Vickicu of the Farm Assurance
And more!

WHEN & WHERE:
Tuesday, October 23rd, 3-7PM
Civic Park on Capitol Hill, Denver
Check website for updates

www.frackfreeco.com
Grassroots Organizations

- Longmont ROAR (Citizens for Responsible Oil and Gas Regulation)
- food & water watch
- WTFack.org
- FRIE RISING
Moratoria Descriptions

- Longmont – Indefinite ban on fracking and production
- Boulder – A 5-year ban on fracking and production
- Lafayette – A 5-year ban that could be interpreted to prohibit even gas pipelines and residential delivery.
- Broomfield – A 2-year moratorium slightly improved by a supportive city council.
- Ft. Collins – A 5-year fracking ban.
- Loveland – A 2-year moratorium for further study but possibly interpreted as indefinite pending voter recall.
DEVELOPING STORY

GOVERNOR ANNOUNCES OIL TASK FORCE MEMBERS

FOCUS ON LAND USE AND STATE AND LOCAL ISSUES
2014/15 Governor’s Task Force

• Governor’s Executive Order Sept. 2014, established task force comprised of 21 representatives from local government, civic organizations, environmental interests, agriculture, and impacted industries (7/7/7).

• Mission: To make recommendations for COGCC rules or state legislation to “harmonize” state and local regulation of oil and gas development in Colorado.

• Public meetings across the state from Sept. 2014 – Feb. 2015.

• 9 of 34 recommendations passed by requisite super-majority
2016 Political Outlook

• Split Legislature
• Court Rulings
• Local Regulatory Developments
• 2016 Ballot Initiatives
2016 Legal & Legislative Developments

CO Supreme Court Review: Legal battle over local fracking bans & moratorium.

- Longmont ban added to Longmont's city charter by voters in 2012, overturned by a district court judge in 2014 when the city was sued by the Colorado Oil and Gas Association (COGA);
- Fort Collins voters approved a 5-year moratorium on fracking in 2013, also overturned by judge in 2014 after COGA sued.
- Supreme Court is now reviewing both; significant precedent will be set.

Legislative Actions:

- HB 1310
- HB 1355
- Potential local control and preemption bills dependent on legal outcomes
2016 Statewide Ballots

- State elections outlook changes in a presidential election year

- 2016 Projection: 4,100,000 registered voters; 2,870,000 votes cast (70% turnout)
  - Represents an additional 465,000 voters over 2014
  - Expect Democratic turnout to be higher given presidential election year and Senator Michael Bennet (D) re-elect
  - Expect presence of national organizations with anti-fracking agenda to increase
2016 Important Election Dates

**MARCH 1**
- Ruling from Supreme Court on municipal fracking bans/moratoriums

**JUNE 30**
- Colorado Primary Election Day

**APRIL 8**
- Last day to file measures with Secretary of State to appear on Nov. 8 election

**JUNE 28**
- Signatures due to Secretary of State's office

**AUGUST 8**
- Ballots mailed to Colorado Voters

**OCTOBER 17**
- Election Day
Amendment 63: Right to Healthy Environments
- Citizens have inherent, fundamental, right to healthy environment that will be “incapable of being overturned”
- Requires state to prioritize environment and mandate that local law takes precedence if it is “more protective” than state law

Amendment 75: Local Gov’t Control of Oil and Gas Development
- Local gov’ts will be granted “police powers” to pass regs on oil and gas
- Local laws cannot be preempted by state laws
- Local gov’ts can limit or prohibit development

Amendment 78: Setbacks
- Setbacks will be used to create oil and gas “bumper zones”
- Bumpers can overlap to protect a whole area and prohibit all types of oil and gas facilities
- Bumpers are for “unresponsive governments” like Weld County
- Overall, 2,500ft setbacks from anything, not just occupied buildings
Yes for Health and Safety Over Fracking

*Purpose:* “To support ballot measures that establish local control of oil and gas development, mandatory setbacks from oil and gas development and oil and gas wells, the right to a healthy environment, and

**A BAN ON HYDRAULIC FRACTURING**

in the Colorado Constitution.”

*State of Colorado Issue Committee*

*Registered January 22, 2016*

*First Contribution/Expenditure Filing due May 2, 2016*
Lesson 1
Lesson 2
Social Media

There's no camping without carbon! Did you know nylon products are petroleum based. Can you think of other camping gear that's petroleum based?

I'm Petroleum Based

Tweets

COGA @ColoradoOilGas
COGA's Annual Golf Tournament, 8/13 @ Bear Dance Golf Club. Sponsor registration is open! youtube.com/watch?v=PM2Noc...
ow.ly/ao9uJ
View video

Tisha Schuller @tishaschuller
Hickenlooper: Solar? Wind? Oil and gas? All of the above in #Colorado denverpost.com/opinion/ci_204...
tweeted by COGA

Doug Flanders @DougFlanders
Public Health and Hydraulic Fracturing: A Review of the Data shar.es/rRBSO via @sharethis
tweeted by COGA

COGA @ColoradoOilGas
Saving money on #fuel is at the top of everyone's to-do list. Check out these myths before your trip to the pump! #oil ow.ly/ao9rX
Does Hydraulic Fracturing Cause Earthquakes?

Facts on Geo-Seismic Activity & Natural Resource Development

Industry Spills in Colorado
Action Alerts

- Longmont
- Loveland
- Boulder
- Ft. Collins
- Erie
- Commerce City
- Routtt County
- Broomfield
- Brighton

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Ft. Collins and Longmont Residents:

Please attend these priority meetings next week!

Thursday, May 31

Dear COGA Members,

Next Tuesday, June 5th, the Fort Collins City Council and the Longmont City Council, two top priority local governments, are meeting respectively and have critical votes which can dramatically affect industry.

On May 15th, the Fort Collins City Council voted to move an 8-month moratorium on new oil and gas activity. On Tuesday, June 5th, Fort Collins City Council will have a final vote on the moratorium.

On May 22nd, Longmont did not act on their new oil and gas regulations. We want to support them in continuing this course, and encourage them to reject the emergency moratorium extension.

Both City Councils has been inundated with input from a very vocal, but small minority of anti oil and gas activists – and they are sure to show up in force. Council members need to hear from oil and gas employees, families, and supporters in person. They need to see the positive support the oil and gas industry has in their jurisdictions.
Lesson 3

- HF Disclosure
- Drinking Water Protection
- Setbacks and Mitigation
- Spill Reporting
- Air Emissions
- Enforcement & Penalty
- Taskforce Rulemaking
Petrochemicals All Around Two percent of crude oil gets turned into chemicals that pervade the consumer economy. Here is a small sampling.

Perfume
*“You don’t have enough roses on this planet to fragrance all the ladies and the guys of this world,” says Christophe Laudamiel, a perfumer. So chemists start with petroleum to make rose and orchid scents.*

Hair Dye
*Grecian Formula, Clairol Nice ’n Easy and even Tints of Nature include oil-derived propylene glycol.*

Deodorant
*If you use Degree Expert Protection deodorant for women, you can raise your hand and be sure there’s polyethylene in your armpit. It’s a type of plastic used in packaging, but also a thickening agent.*

Vanilla Ice Cream
*If it says “vanillin” on the package, you’re likely licking petroleum-derived artificial flavoring. Yum!*

Lotion
*Guess which type of byproduct helps keep Olay’s Regenerist face cream from drying out?*

Cosmetics
*L’Oréal Visible Lift foundation includes nylon-12, a material derived from oil. Nylon also shows up in seatbelts, carpets, and, of course, nylons.*

Toothpaste
*What shiny choppers you have! Brands like Crest include propylene glycol, a binding agent (and, in other forms, antifreeze).*

Preservatives
*Many foods — cereal, butter, meats, chewing gum, baked goods, beer — have added oil-derived BHA or BHT to prevent fats from going rancid and flavors and colors from going flat.*

Vitamins and Capsules
*Heartburn? The shells of capsules that dissolve in the stomach usually are petroleum derived.*

Plastic Bags
*Have you noticed they’re getting firmer lately? Blame high oil prices.*

Detergent
*Oil lifts out oil, so petroleum derivatives are standard in laundry products.*

Pain Relievers
*Excedrin headache No. 10W-40? The popular brand includes propylene glycol, also used in engine coolant.*

Clothing
*If the label has acrylic, polyester or nylon on it, congratulations: You’re a petro-fashionista.*

Golf Balls
*You may reach the green, but perhaps not “green.” Golf balls are 90 percent petroleum-based materials.*

Sources: U.S. Energy Information Administration; Dr. Benny Pease; Dr. Michael Pethke; Geoff Geiss; Christophe Laudamiel; Acschemet Company; Institute of Road Technologists; product labels
Boulder Oil Field - 1903
Questions?

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