Innovative Methods to Minimize Emissions in a Highly Regulated State

November 4, 2019

EXTRACTION

Oil & Gas

ABOUT EXTRACTION OIL & GAS

- Committed to safe and responsible operations at all times
- Committed to improving the industry through technological advancements & innovation
- Committed to being a good neighbor in the communities where we operate
- Committed to partnering with communities to providing best-in-class development plans
- Committed to best-in-class financial results

NASDAQ: XOG

EXTRACTION AT A GLANCE

AN **INNOVATIVE** public company committed to operating in partnership with local communities

80,000+

75,000+ BARRELS of oil equivalent per day of production

Directly employs **300** PEOPLE throughout Northern Colorado

FOCUSED **EXCLUSIVELY** in Colorado's DJ Basin

Going Above and Beyond in a Highly Regulated State

Colorado has some of the strictest regulations on oil and gas development in the country.

Extraction goes above and beyond these regulations with its best management practices.

State-Level

Colorado Parks & Wildlife

CDPHE Colorado Department of Public Health & Environment

DNR Colorado Oil & Gas Conservation Commission

Federal-Level

Department of Transportation, United States of America

U.S. Department of Energy

OSHA Occupational Safety and Health Administration

United States Environmental Protection Agency

Industry Standards

ISO

energy API

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Technology & Innovation Leading the Way

Minimizing Footprint & Impact

- Tankless facility designs that reduce truck traffic & emissions sources
- Electric-powered drilling rigs
- 3-mile ‘monobore’ laterals
- Sound walls & berms
- Tier 2 dual fuel /Tier-4 completions fleet

- 100% Water Transport with Layflat
- Plug and perf multi-stage fracking
- Central Gathering Facility
- Fit-for-purpose electrical artificial lift
- Electric-powered compressor equipment
- 65% net reduction in emissions
- Municipality Collaboration

Tankless Facility

Well Design - - >

Central Gathering Facility

Lease Automatic Custody Transfer (LACT)

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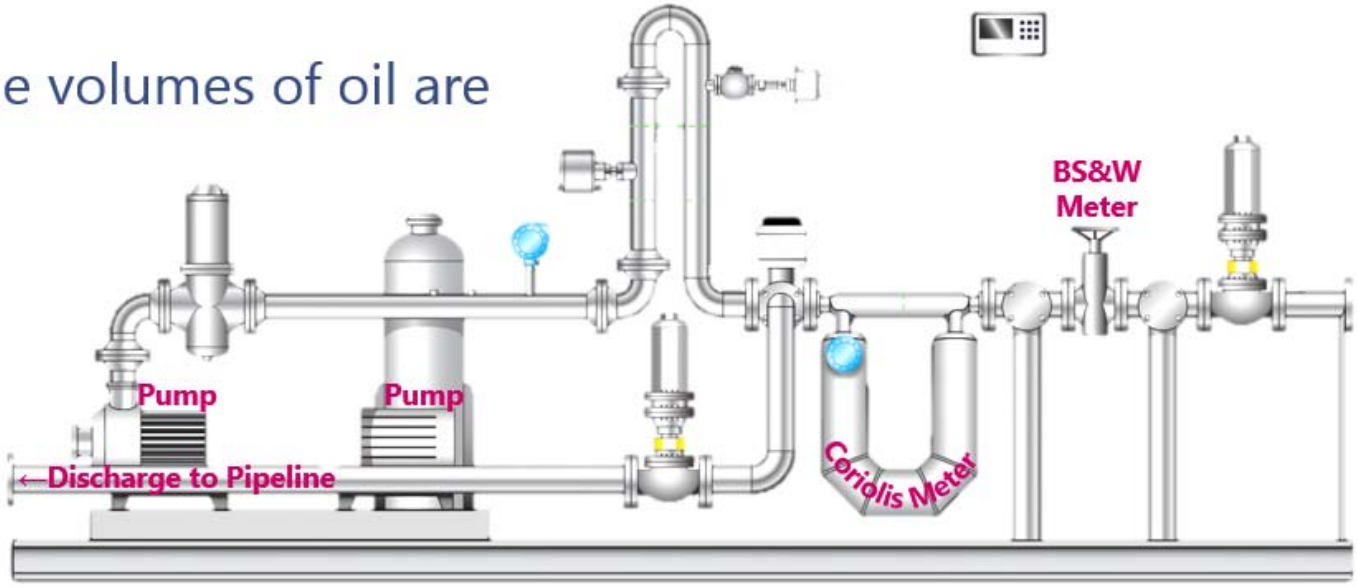
What is Lease Automatic Custody Transfer (LACT)

- System that automatically measures, samples, and transfers oil from the lease location into a truck or pipeline
- Useful where large volumes of oil are produced and distributed
- Measures Basic Sediment & Water (BS&W) and API Gravity



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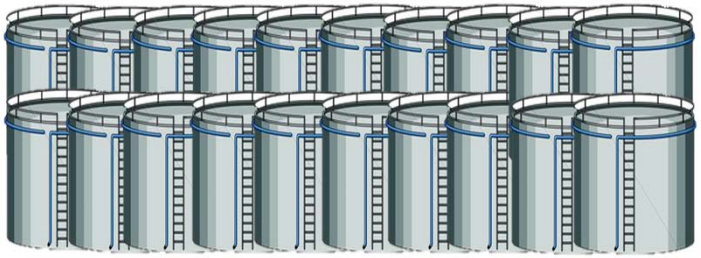
Interior and Exterior Photos of LACT Housing

Baseline: No LACT

Wells



Large tank Battery

Truck Loadout

Benefits

- Compatible with all Haulers
- Operable without oil or water gathering infrastructure
- Operable without power

Considerations

- Rely on vendors to close thief hatches
- Increased risk of theft and environmental contamination
- Larger footprint
- Increased haulage and maintenance activities

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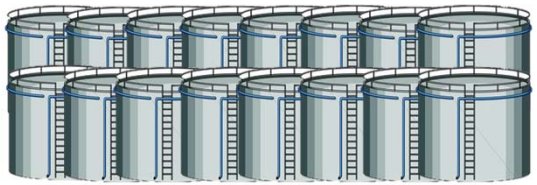
Option: LACT *to* Truck Loadout

Wells



Smaller tank Battery

LACT

Truck Loadout

Benefits

- Reduced emission profile
- No need to open Thief Hatch
- Faster product delivery
- Accurate flow measurement
- Reduced truck idling time
- More efficient use of hauling trucks

Considerations

- BLM measurement isolation
- Inoperable without a power source (grid, generator, or turbine)
- Larger footprint

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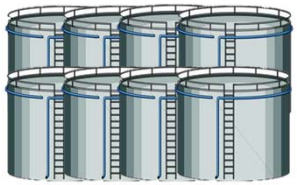
Option: LACT *to* Pipeline

Wells



Smaller tank Battery

Sometimes Combined

LACT

Booster

Pipeline

Benefits

- Reduced tanks & emission profile
- No need to open Thief Hatch
- Faster product delivery, and now not limited by hauler availability
- Accurate flow measurement
- No truck idling
- Significant reduces truck traffic

Considerations

- BLM measurement isolation
- Inoperable without pipeline infrastructure
- Inoperable without a power source (grid, generator or turbine)
- Requires pipeline right-of-way

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Option: Tankless *to* LACT *to* Pipeline

Wells

No atmospheric tanks

LACT

Pipeline

Benefits

- Almost non-existent emission profile
- Small Facility Footprint
- Reduces need for process equipment
- Minimizes exposure potential
- Virtually eliminates truck traffic

Considerations

- BLM measurement isolation
- Inoperable without pipeline infrastructure
- Inoperable without a power source (grid, generator or turbine)
- Requires pipeline right-of-way
- Pipeline corrosion
- Freezing

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Example of Facility Improvements

Facility Turn-on:
LACT to Truck loading:
More oil tanks

Facility “Remodel”
LACT to Pipeline:
Less Oil tanks

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Example of LACT to Pipeline

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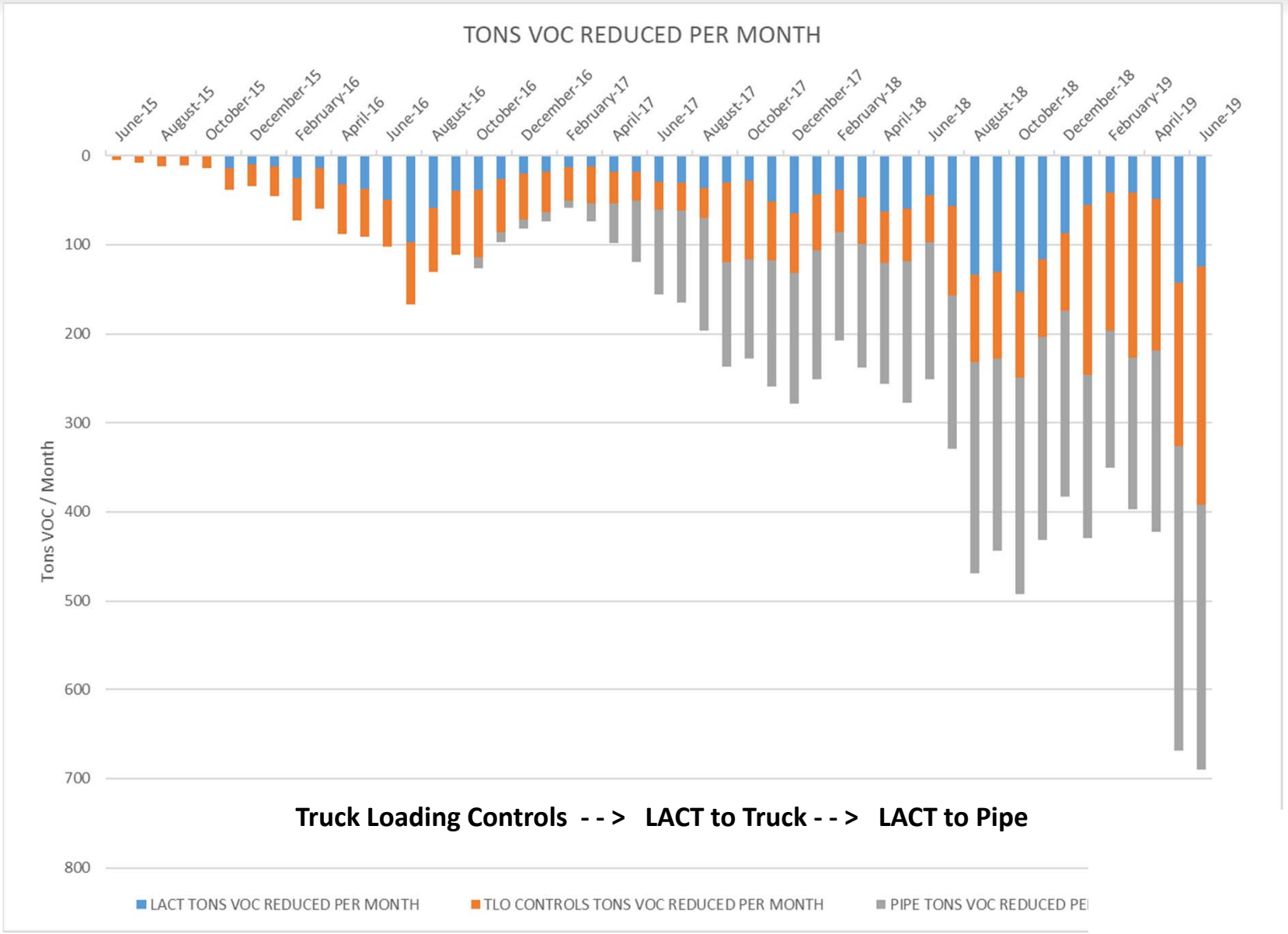
Emissions Savings:

Preventing Emissions over time



Emission Reduction Strategies: Broomfield Development

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Project Overview

- Broomfield Comprehensive Development Plan (CDP) consisted of:
  - Development of 84 wells using multiple best industry practices
  - Commitment to remove 42 legacy wells in the project area
- Badger Central Gathering Facility (CGF) & Buffalo Compressor Station (CS)
- Emission Reduction Strategies for all phases of development – Drilling, Completions, Production

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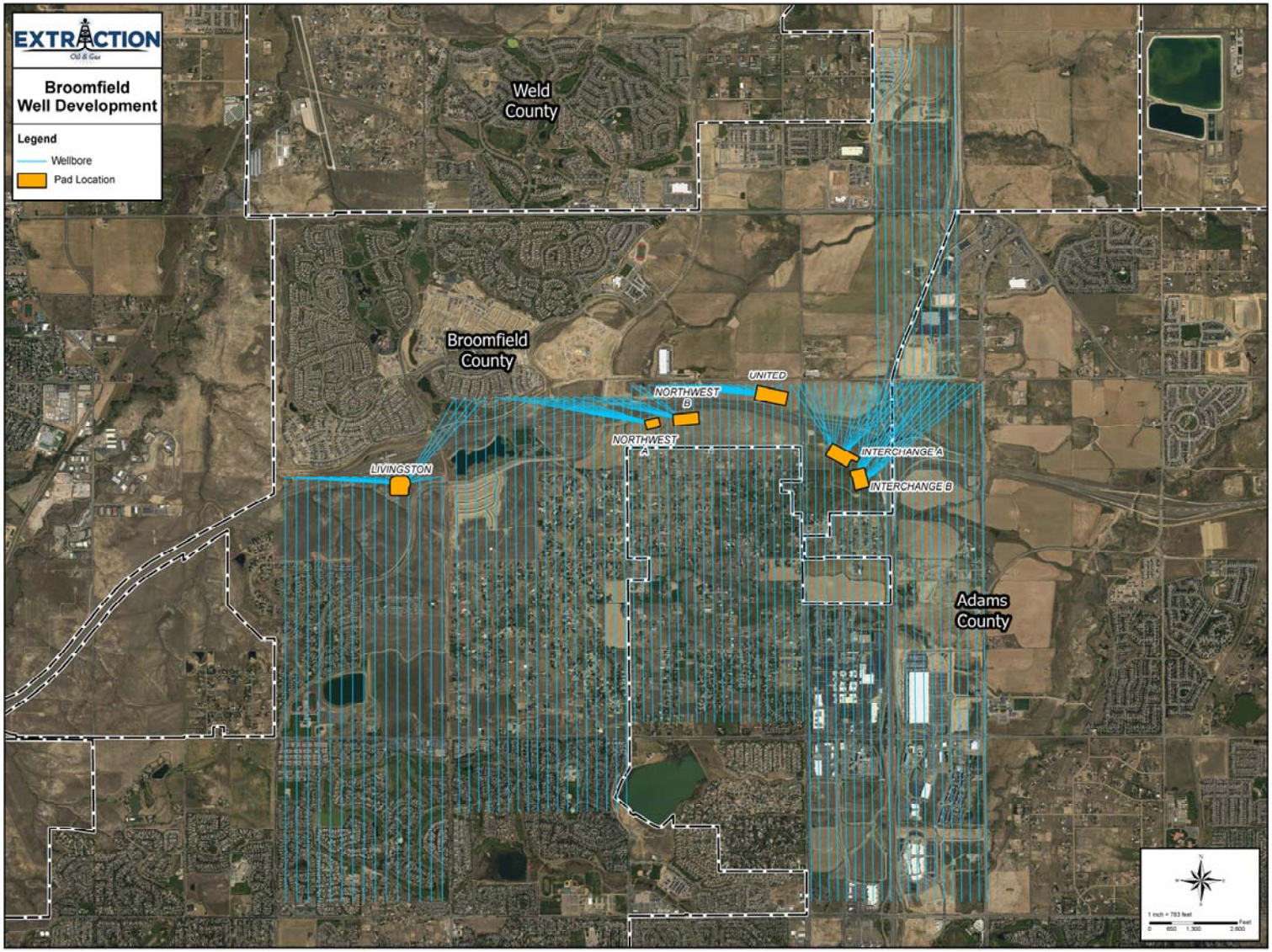
Broomfield Development



Project Summary

- Interchange A (16 Well Pad)
- Interchange B (17 Well Pad)
- Livingston (19 Well Pad)
- Northwest A (8 Well Pad)
- Northwest B (8 Well Pad)
- United (16 Well Pad)

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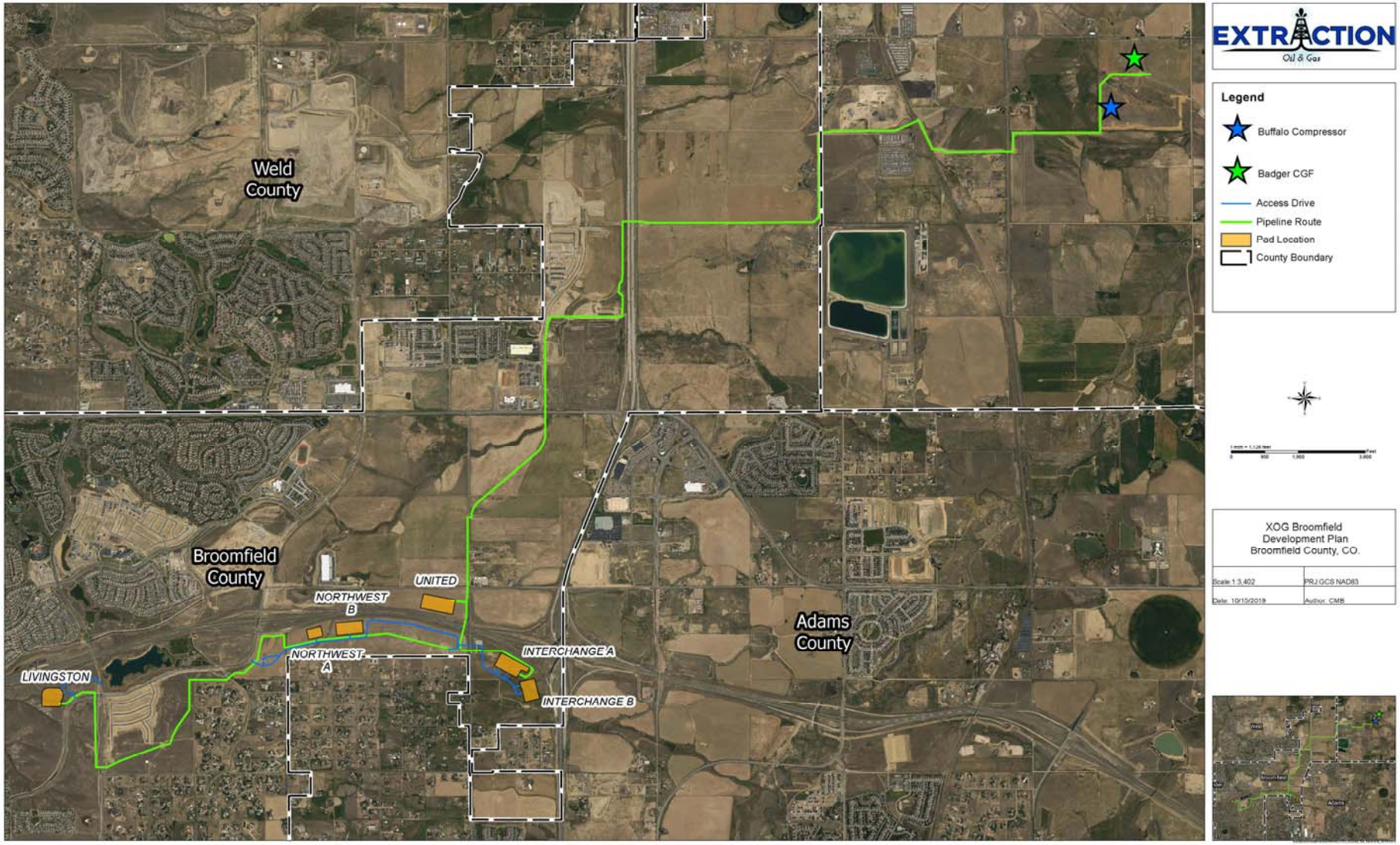
Broomfield Development and Badger CGF & Buffalo CS



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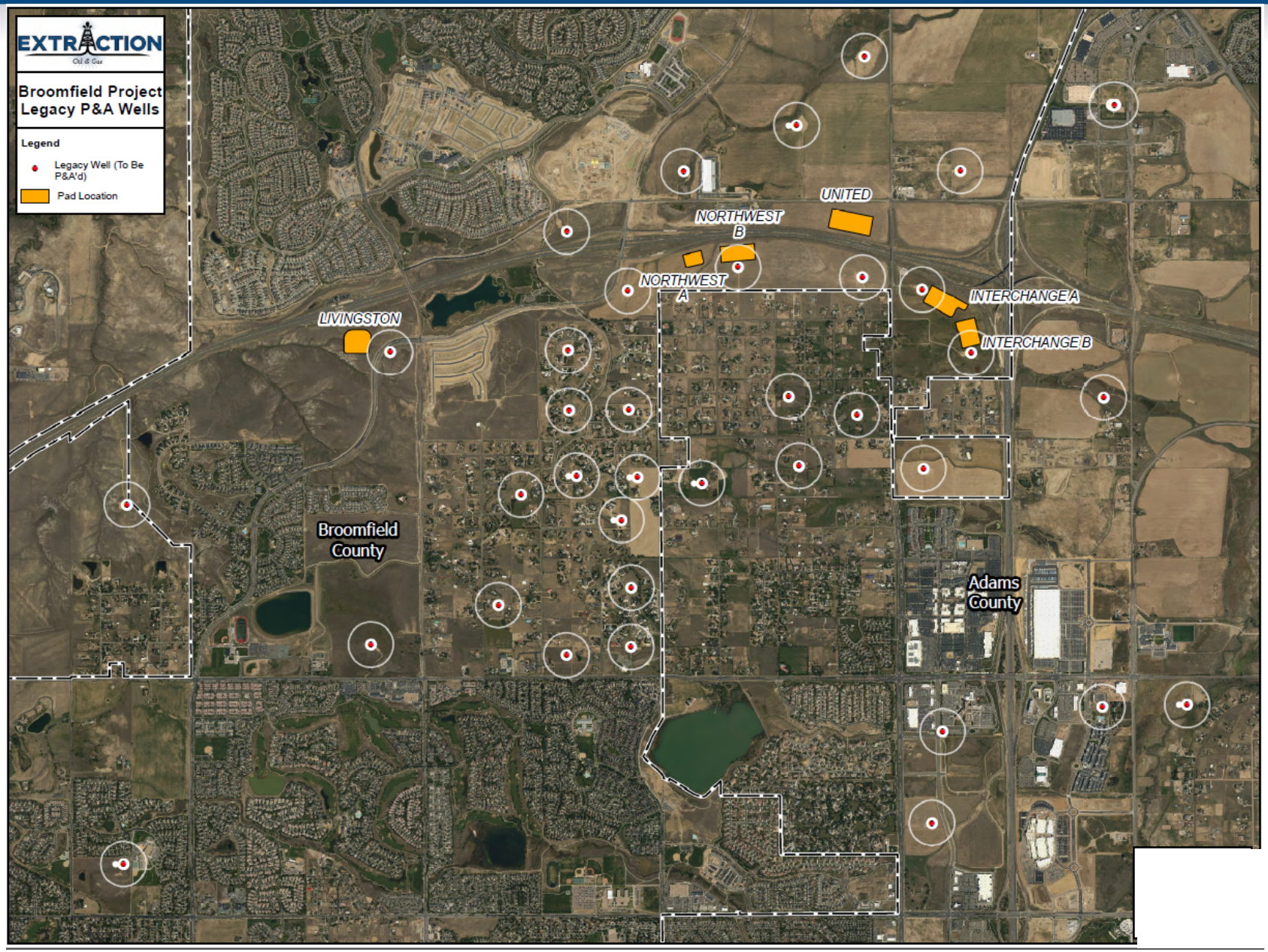
Legacy Well Removal



Legacy Well Removal:

Eliminating Emission Sources and Truck Trips

Before: Brozovich MA8-15

After: Brozovich MA8-15

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Emission Reduction Strategies – Drilling

Implemented Strategies:

- Electric Drilling
- Closed Loop drilling system
- Mud Chillers

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Emission Reduction Strategies – Hydraulic Fracturing

Implemented Strategies:

- Tier 2 dual fuel or Tier 4 Frac Fleet
- Lay flat water pipe

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Emission Reduction Strategies – Flowback

Implemented Strategies:

- No temporary flowback tanks
- No trucks to haul fluids
- No temporary test separators

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Emission Reduction Strategies – Production

Implemented Strategies:

- Electric compression
- Tankless LACT to Pipeline **(no tanks & no trucks!)**
- Instrument air for pneumatic controllers
- Low pressure gas compression to sales
- Redundant compression
- Controlled maintenance
- Combustor that achieves >99% control

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Emission Reduction Strategies – Badger CGF & Buffalo CS

Implemented Strategies:

- Electric compression and dehydration units
- Internal Floating Roof oil tanks
- Oil, gas and water pipelines **(No trucks!)**
- Instrument air for pneumatic controllers
- Low pressure gas compression to sales
- Redundant compression
- Controlled maintenance
- Combustors that achieve >99% control

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Innovations Leading Emissions Reductions

Industry-Standard Operations

- Traditional drilling
- Standard frac fleet
- Legacy well sites remain active
- Tanks and trucking produced products

Emissions Footprint:

Higher emissions requiring air permit

Extraction's Voluntary Innovations

- Closed-loop system
- Electric drilling
- Lay flat water delivery with Tier 2 dual fuel or 4 frac fleet
- Commitment to remove and reclaim legacy well sites
- NO tanks & NO trucking

Emissions Footprint:

65% reduction in current development plan

No air permit required

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The Extraction Way:
Driving Innovation with Environmental Benefit

THE ENVIRONMENTAL PARTNERSHIP

MEMBER

Participating member in the oil and gas industry's Environmental Partnership since 2016

NaturalGas EPA POLLUTION PREVENTER

MEMBER

Participating member in the EPA's Natural Gas Star program since 2016

TrustWell™ IES Facility PLATINUM 2018

PLATINUM FACILITY

Awarded to top 10% of companies with a demonstrated mastery over risk control and implementation

COLORADO Environmental Leadership

GOLD LEADER

GOLD Leader Award from Colorado's Dept. of Public Health & Environment

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