



MINERAL TRACKER[®]

Powered by First International Bank & Trust





BAKKEN PRODUCTION TRENDS: THE EXPANDING CORE

Presented by: Joel Brown, VP Mineral Services Manager

September 23, 2021










PRESENTATION OUTLINE

-  Introduction
-  Improving Recovery
-  Regional Analysis
-  Conclusion: Implications to Mineral Owners



INTRODUCTION

Joel Brown

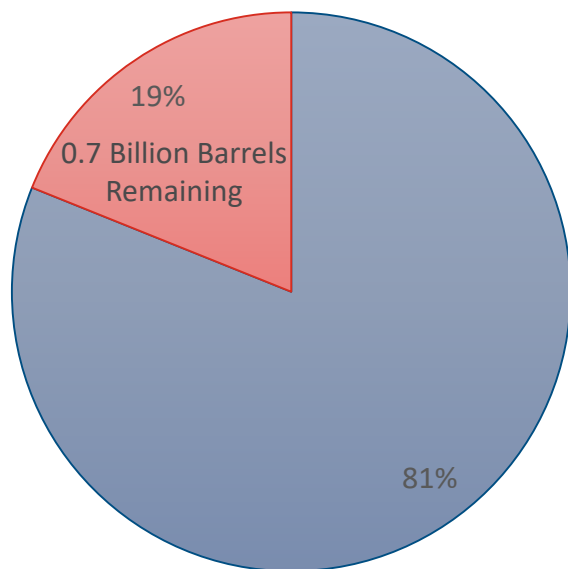
-  2013: B.S. Petroleum Engineering, University of North Dakota
-  2013-2018: Acquisitions & Divestment, Non-Op, Pipelines, Oilfield Services, Exploration & Production
-  2018: Founded MineralTracker
 -  Mineral Management Software
 -  Reserves Analysis, Appraisals, Consulting
 -  North Dakota Department of Trust Lands Valuation
-  2020: MineralTracker Acquired by First International Bank & Trust
 -  Integrated into Mineral & Land Services
 -  Mineral Management
 -  Reserves Based Lending



IMPROVING RECOVERY

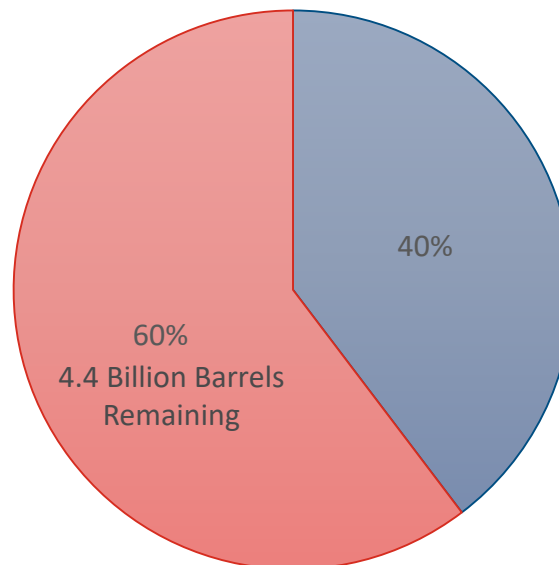
2008 USGS Est.

3.7 Billion barrels



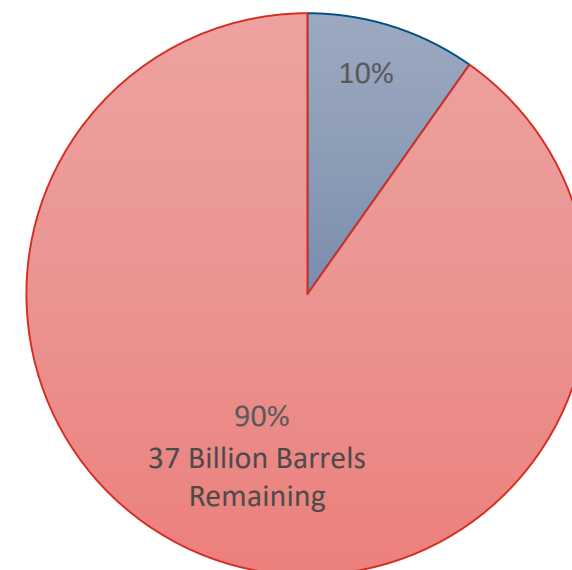
2013 USGS Est.

7.4 Billion barrels



2018 Industry Est.

30 – 40 Billion barrels



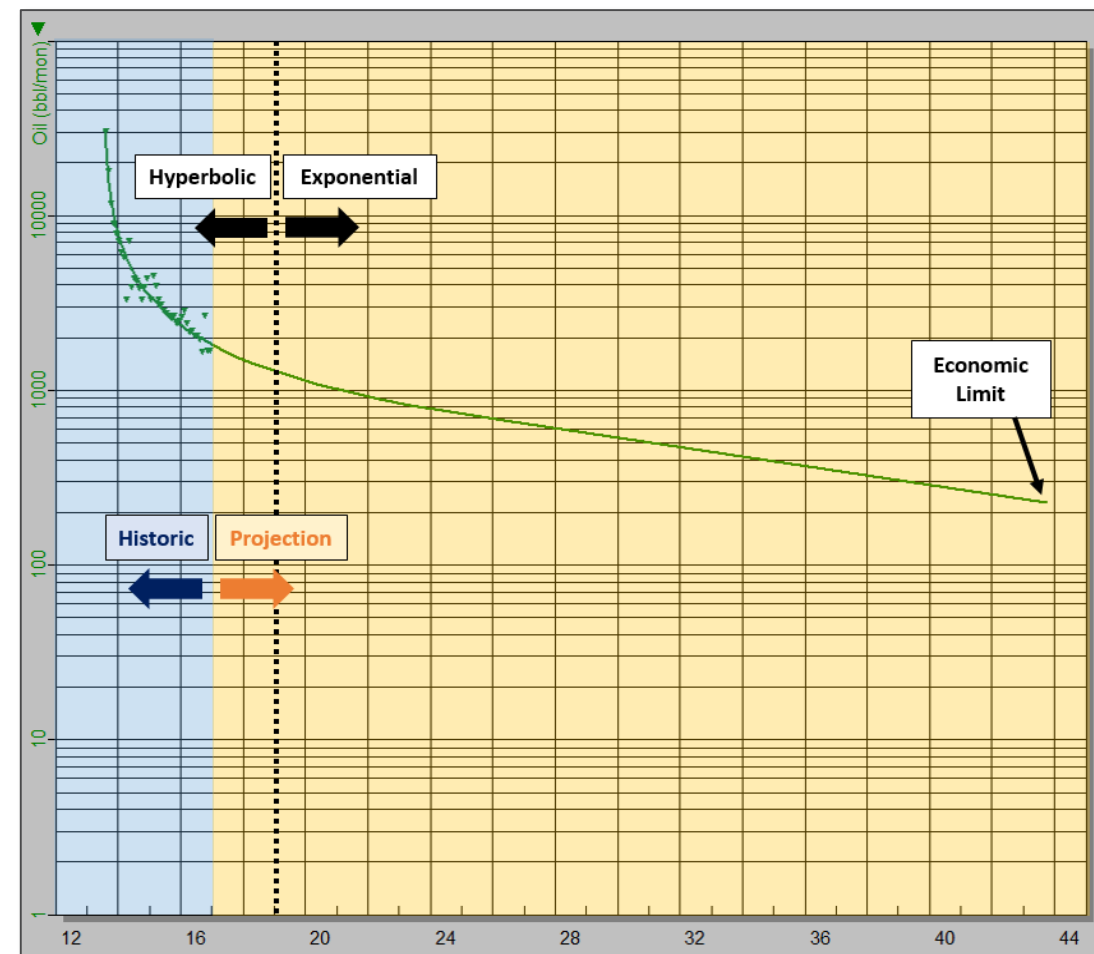
 Oil Recovered to Date: ~3 Billion Barrels

 Recoverable Oil Remaining



IMPROVING RECOVERY

- How does well performance improve?
 - Innovations in completion techniques and technology have led to increased recovery rates.
- How do we measure well performance?
 - Cum: Cumulative oil produced over a specified period of time.
 - EUR: Estimated Ultimate Recovery over the life of a well.
 - Breakeven Oil Price: the price at which an operator can achieve a profit by drilling.
- How does improving well performance impact me as an owner?
 - Impacts are regional.
 - Breakeven oil prices are shifted.



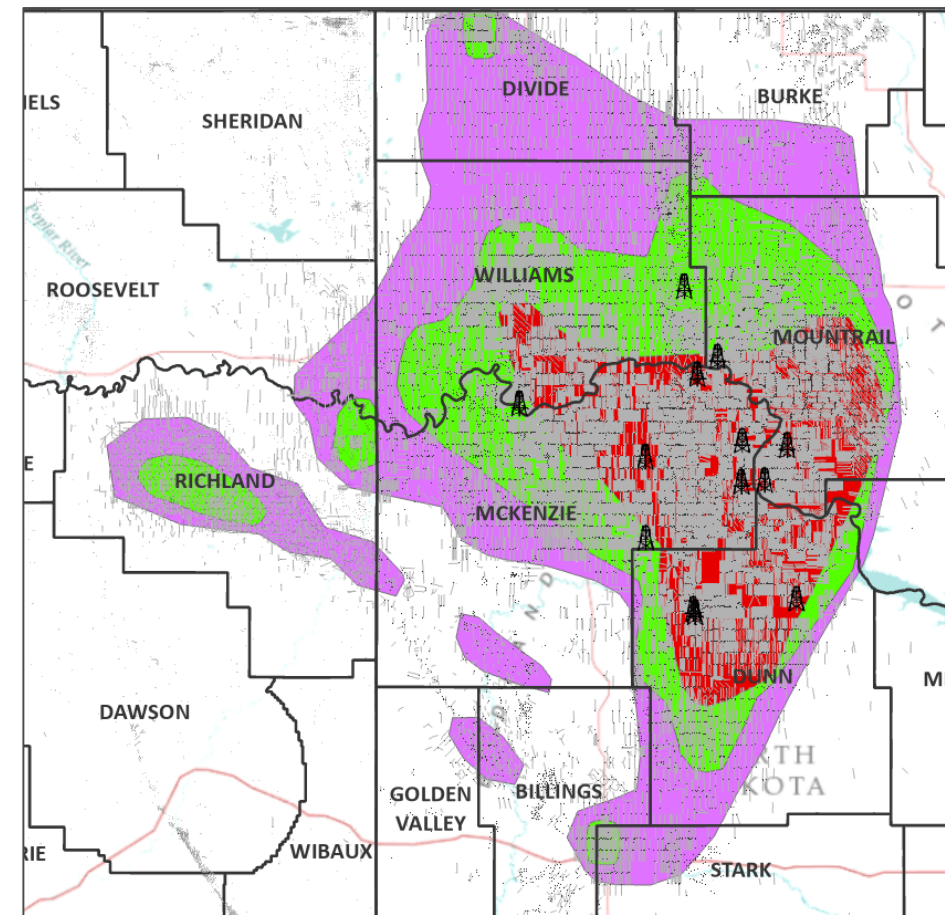
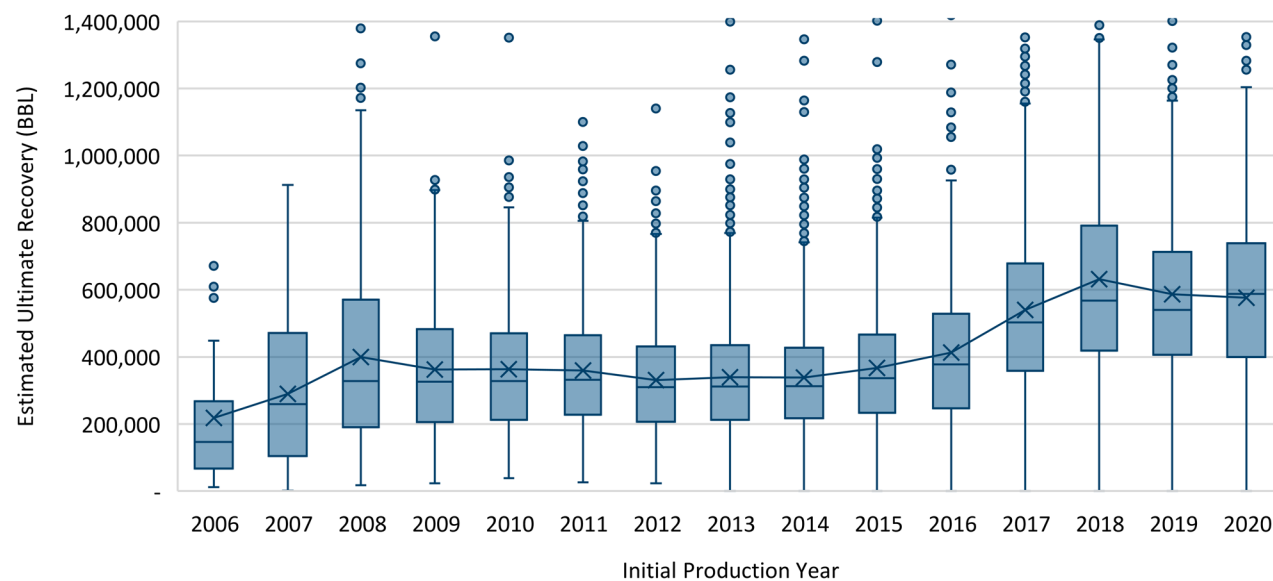
IMPROVING RECOVERY

 Avg. EUR drilled in 2013: 340,000 BBL

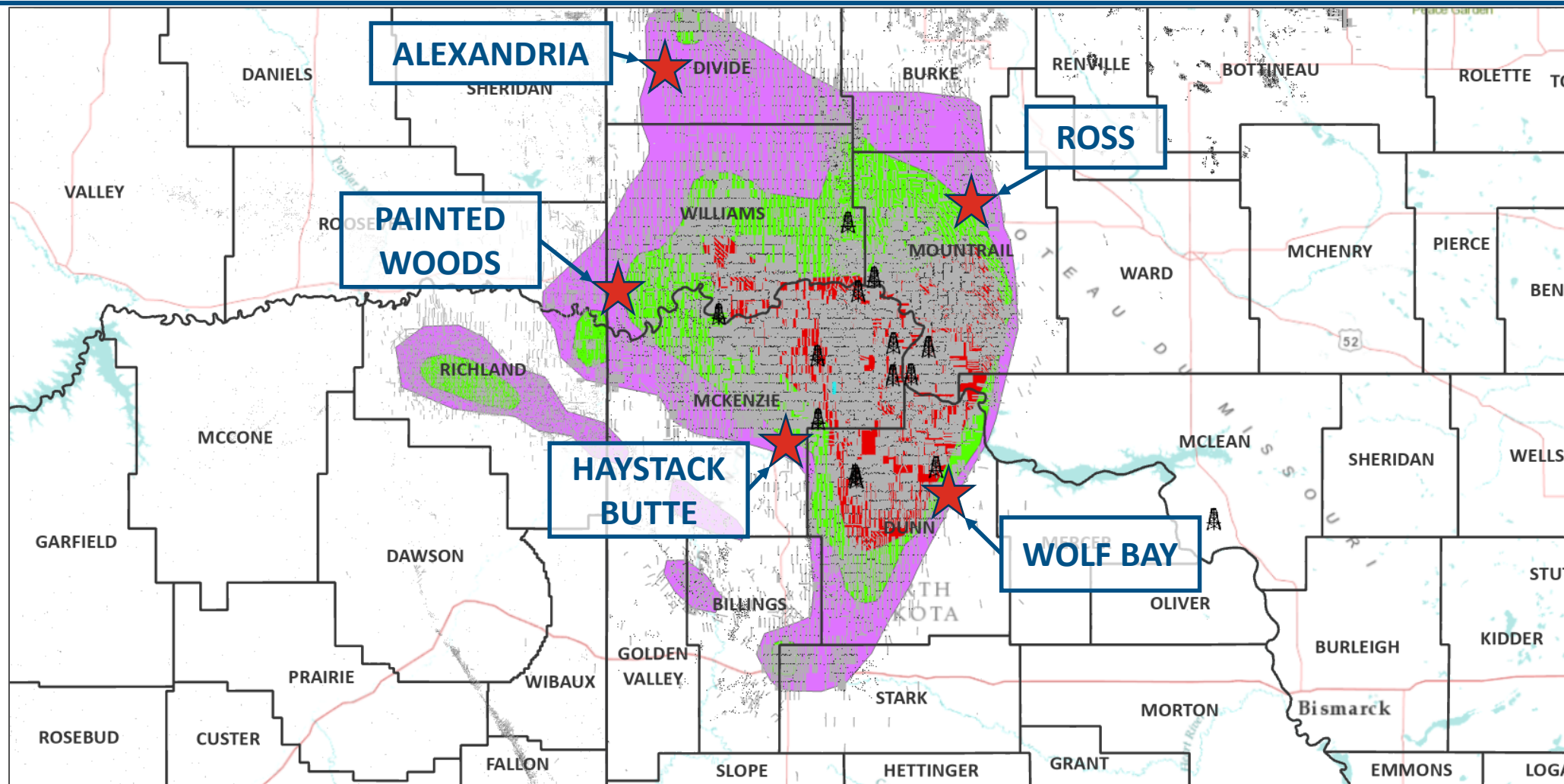
 Breakeven Oil Price: \$71/BBL

 Avg. EUR drilled in 2020: 580,000 BBL

 Breakeven Oil Price: \$37/BBL



IMPROVING RECOVERY



ROSS REGION

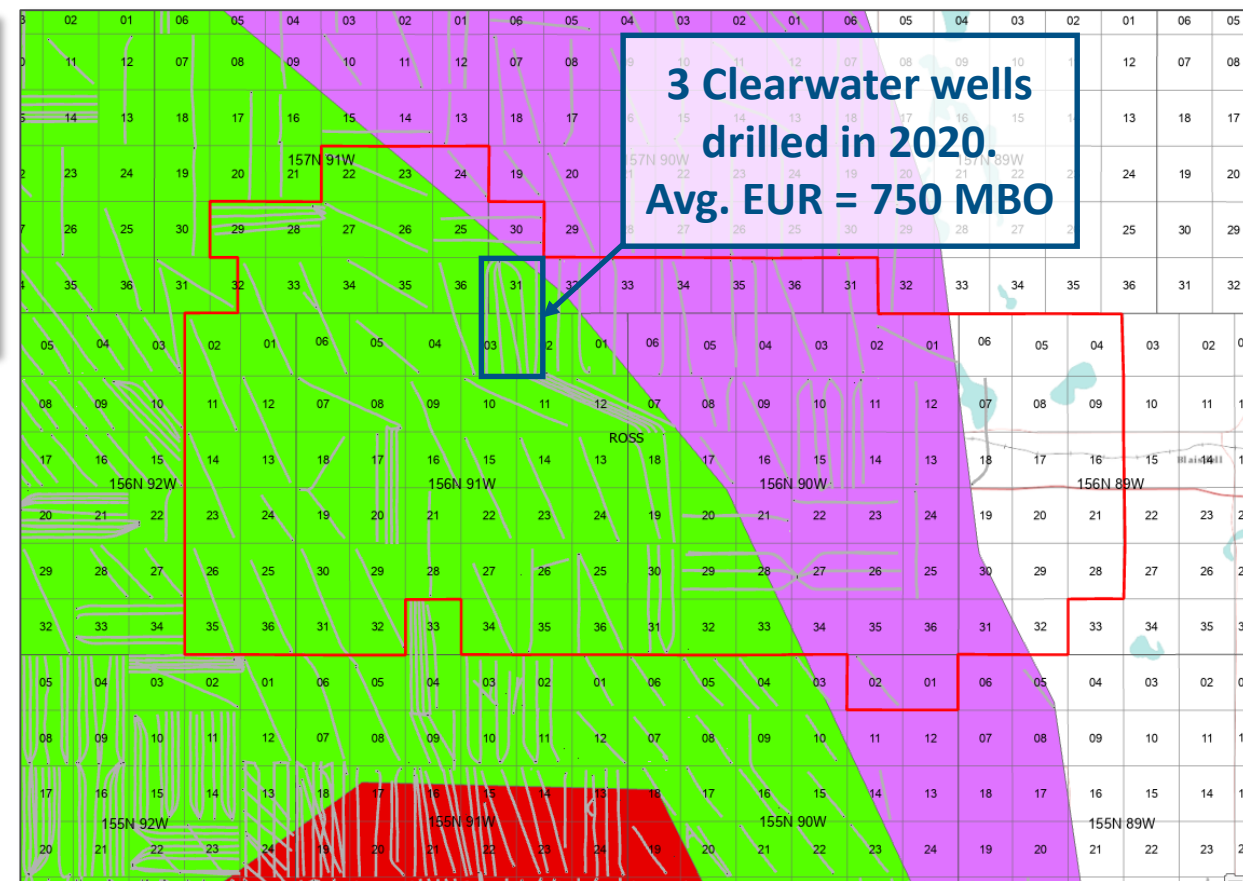
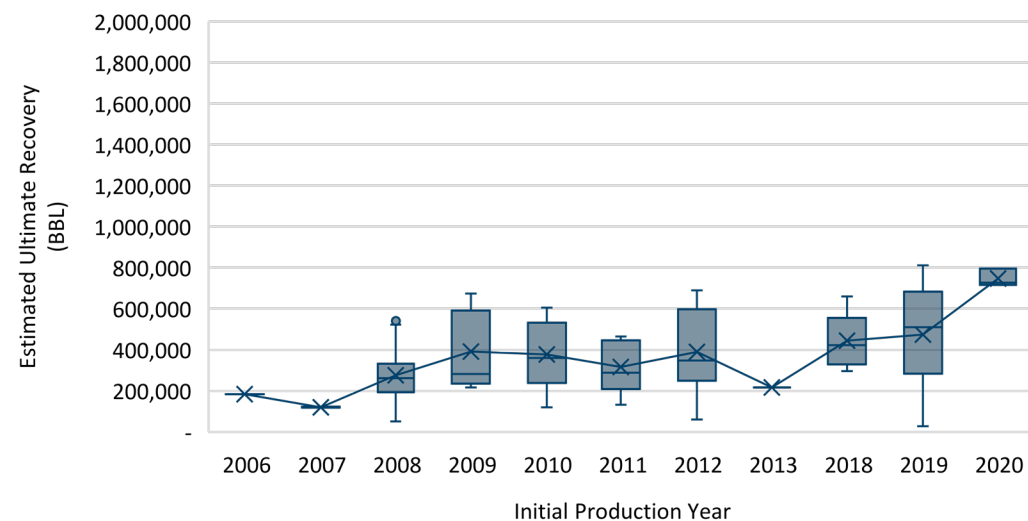
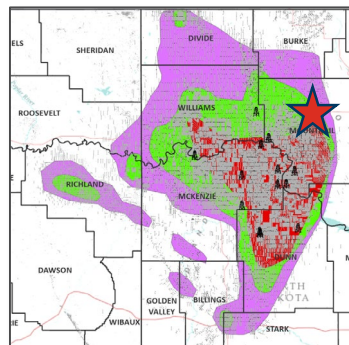
85 Wells

EOG, Hess, Hunt Oil

750 MBO

Breakeven Oil Price: \$29/BBL

*\$7.5MM AFE, 10% IRR



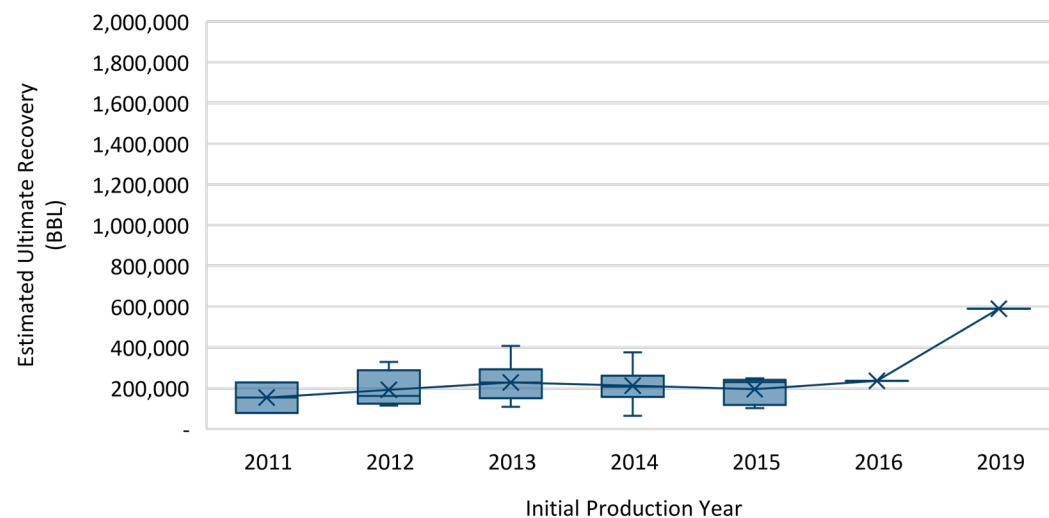
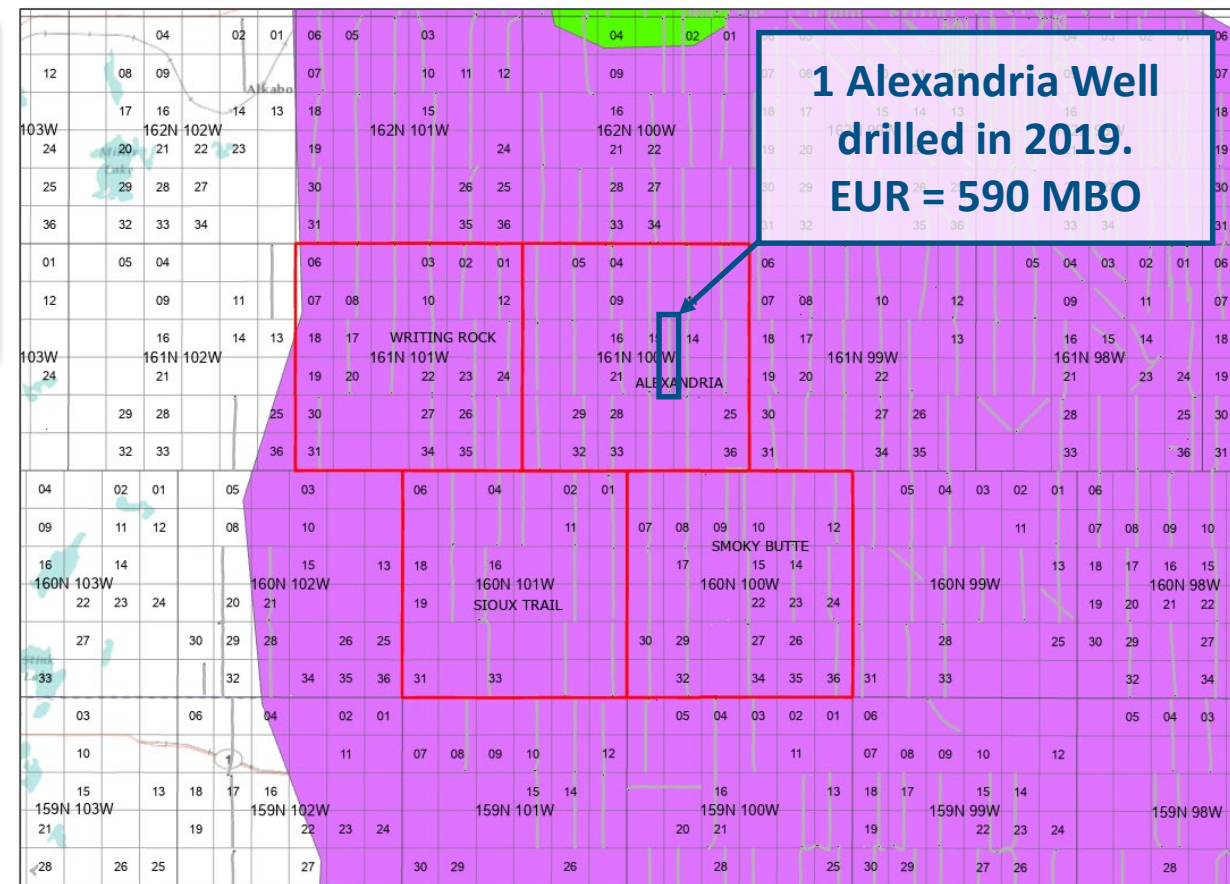
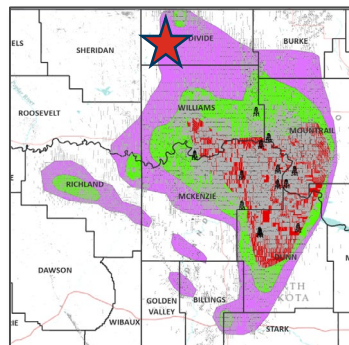
ALEXANDRIA REGION

59 Wells

Hunt Oil, Petro-Hunt,
Murex, Prima

590 MBO

Breakeven Oil Price: \$36/BBL
*\$7.5MM AFE, 10% IRR



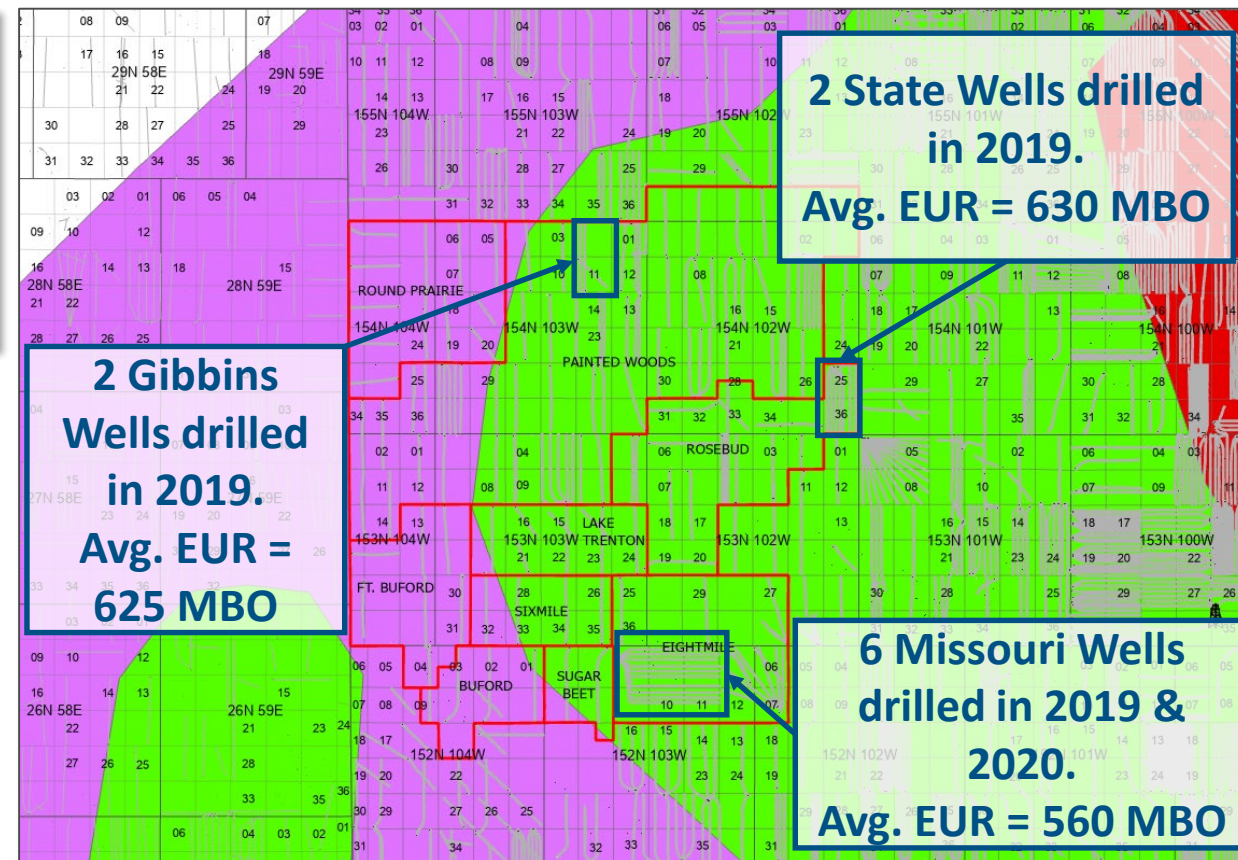
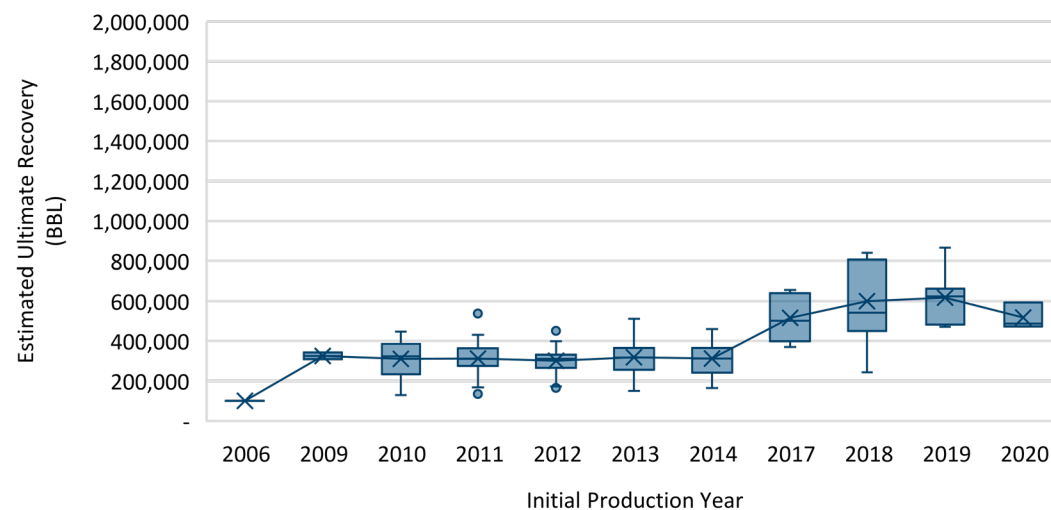
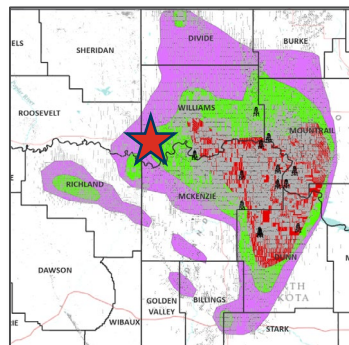
PAINTED WOODS REGION

144 Wells

EOG, Equinor, Nine Point, Oasis

590 MBO

Breakeven Oil Price: \$36/BBL
*\$7.5MM AFE, 10% IRR



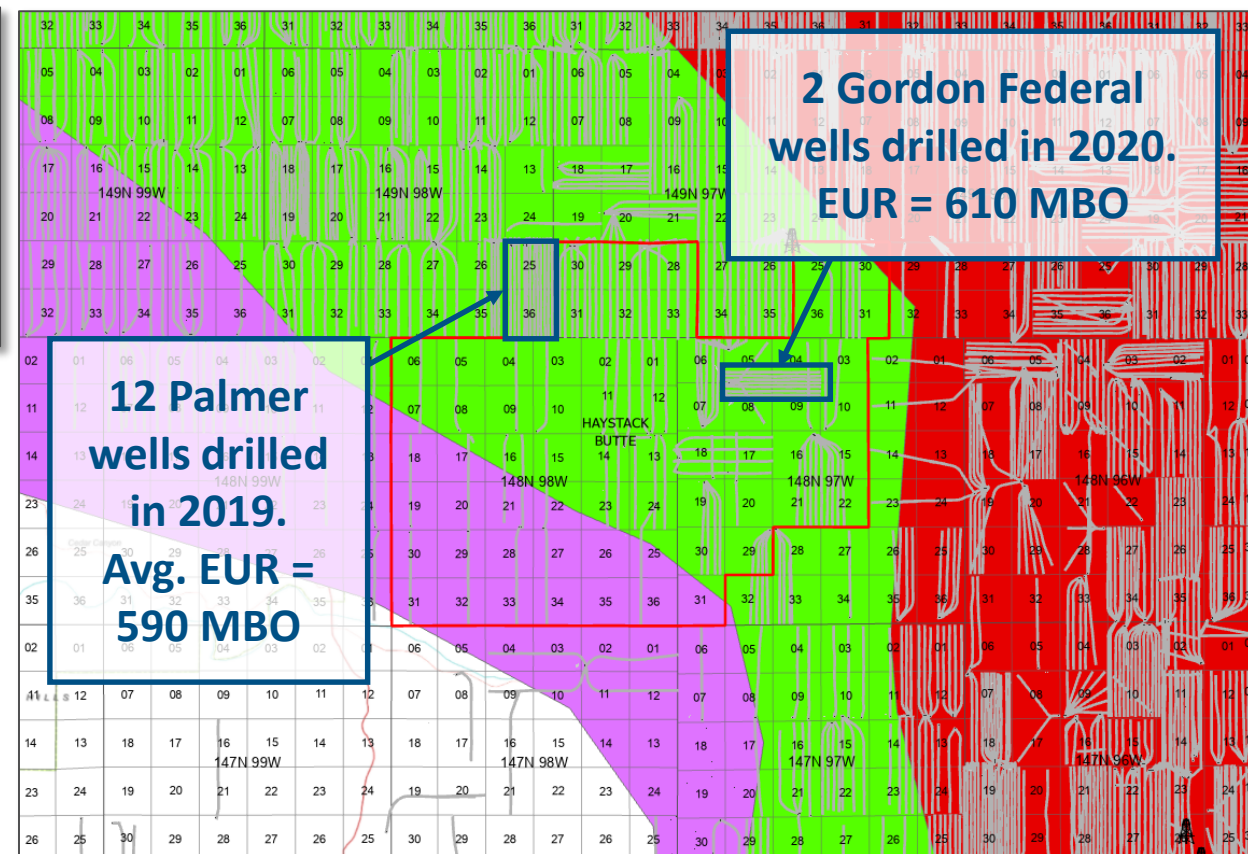
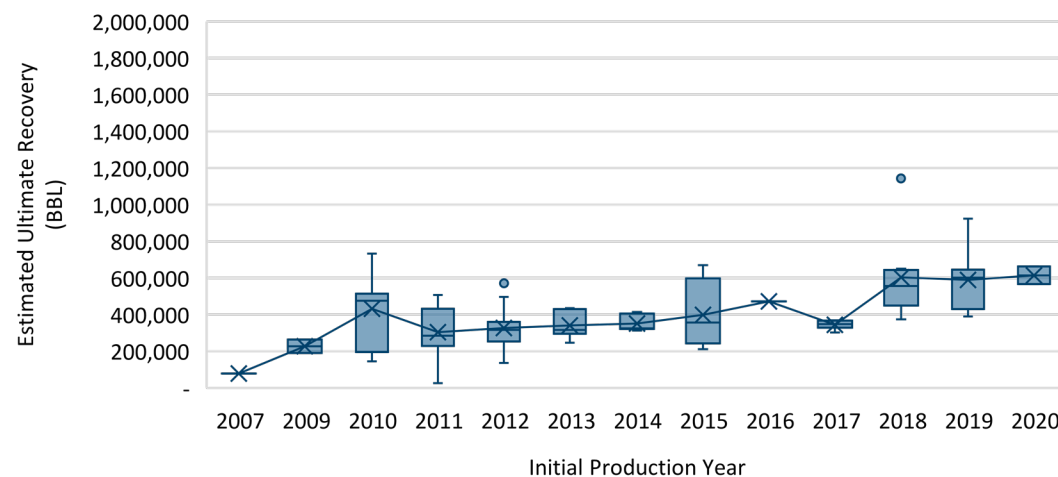
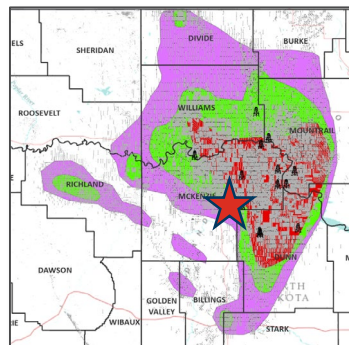
HAYSTACK BUTTE REGION

81 Wells

Conoco, Continental, XTO,
Ovintiv

590 MBO

Breakeven Oil Price: \$36/BBL
*\$7.5MM AFE, 10% IRR



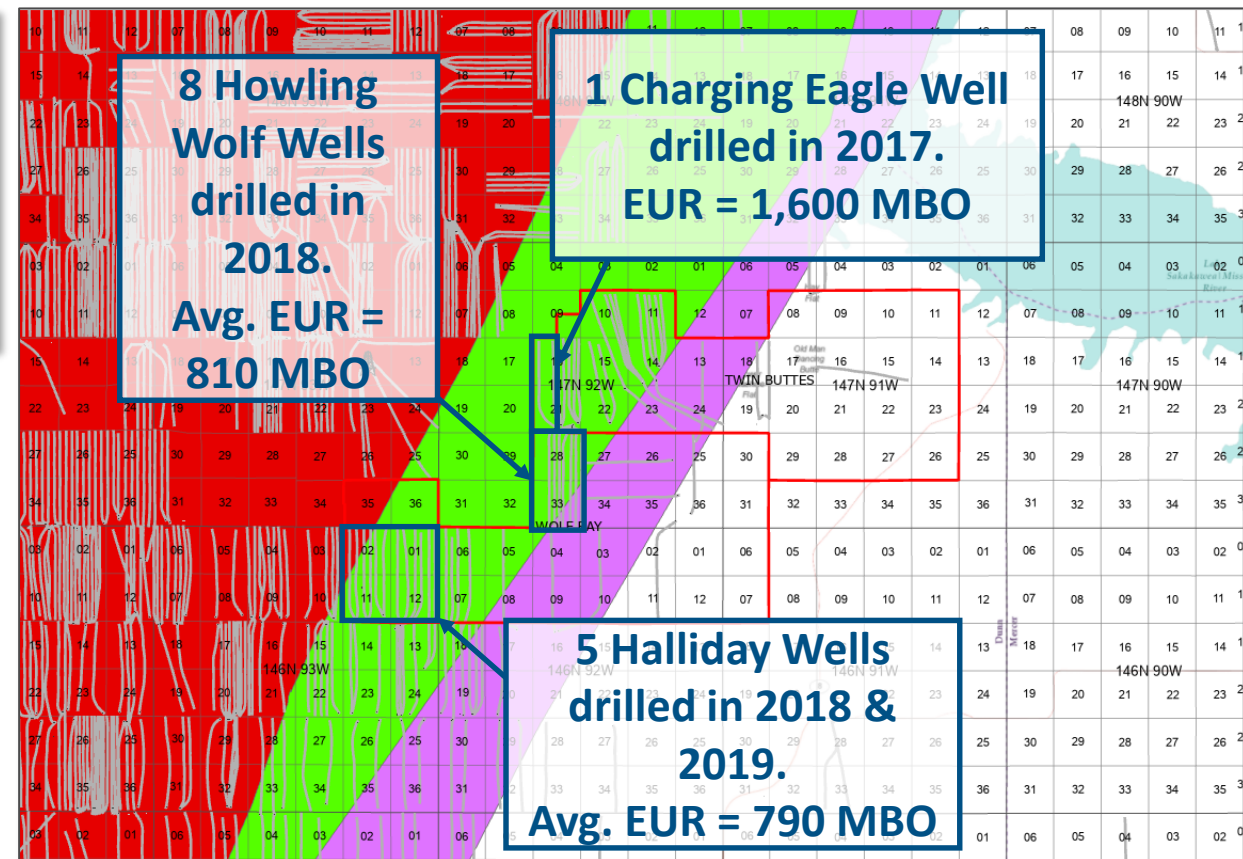
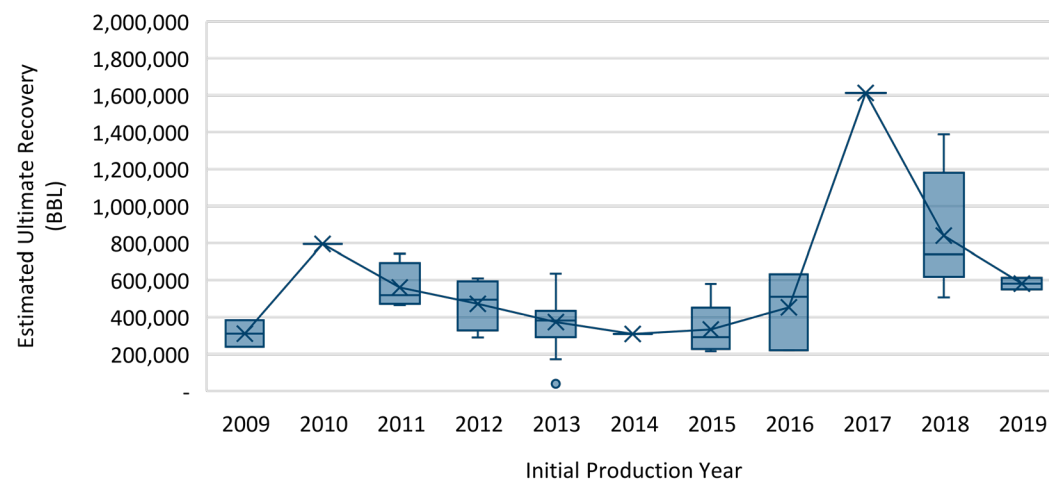
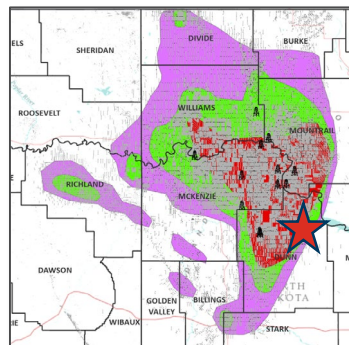
WOLF BAY REGION

54 Wells

Rimrock, Marathon, WPX, Hunt Oil

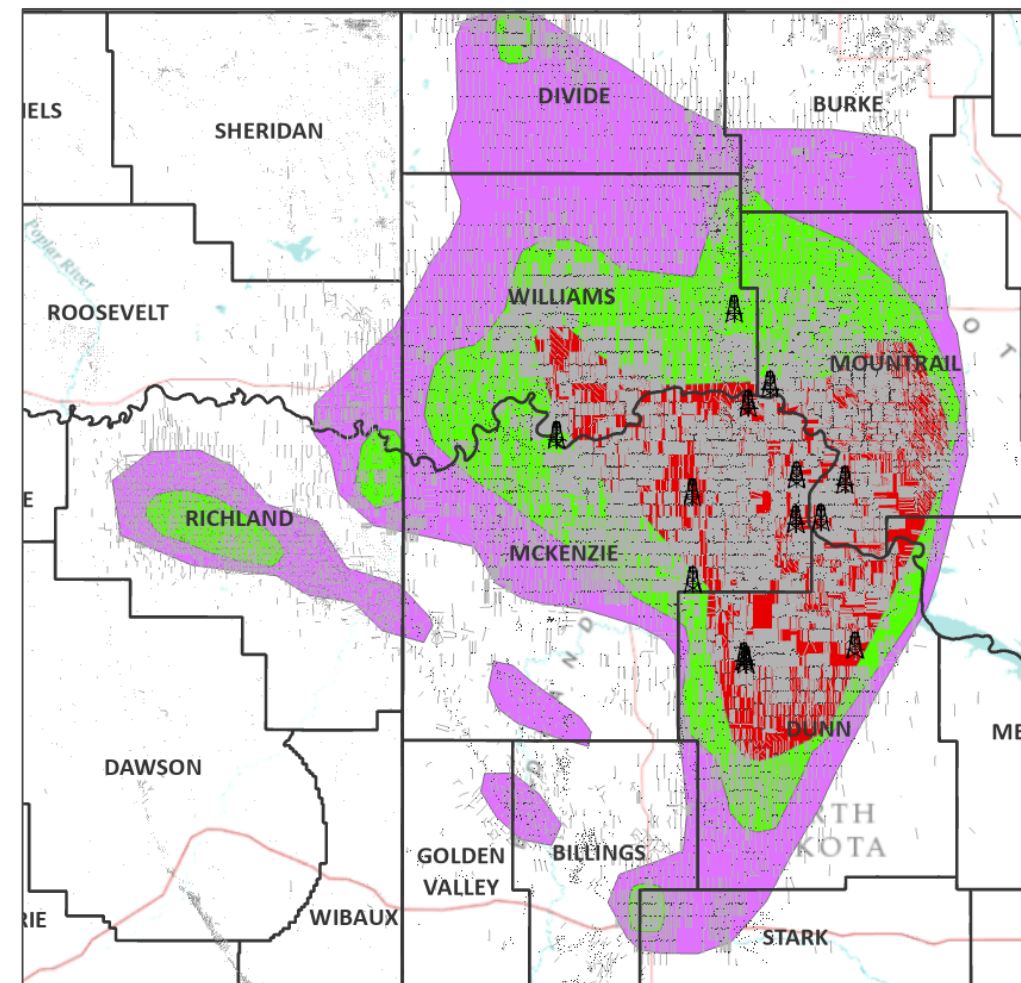
800 MBO

Breakeven Oil Price: \$27/BBL
*\$7.5MM AFE, 10% IRR



CONCLUSION

- Modern completion techniques have significantly impacted well performance in the off-core areas of the Basin.
- Improved well performance has lowered the breakeven oil price of off-core areas, making today's economic outlook very attractive.
- The tiers of the Williston Basin are expanding, and stakeholders across the Bakken are bound to experience the benefits of continuous improvements to technology.



Contact Us

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