

# THE INTEGRATED APPROACH TO OUR "LIFE OF FIELD" DEVELOPMENT PHILOSOPHY

July 13, 2021 – DUG PERMIAN CONFERENCE

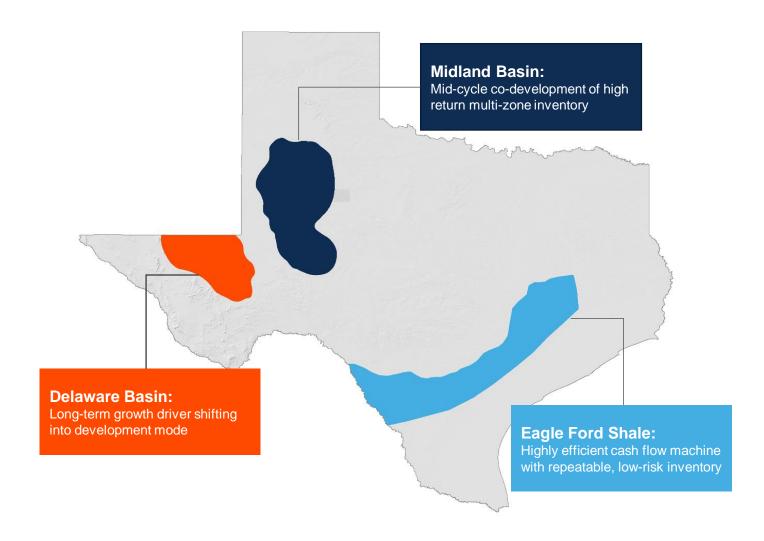


# CALLON PETROLEUM – ASSET AND COMPANY OVERVIEW

#### **COMPLIMENTARY ASSET PORTFOLIO**

- Multi-basin exposure allows for diversification, mitigating basin specific operational and pricing risk
- Meaningful scale in each area enhances the ability to generate and retain operational / capital efficiency
- Rotational development allows for data capture which enhances the integrated workflow and continuous evaluation process

KEY STATISTICS	
Total Net Acres	~180,000
1Q21 Total Production (Mboe/d)	81.0
1Q21 Oil Production (MBbl/d)	52.0
Market Cap <sup>1</sup> (\$BN)	\$2.5
Enterprise Value <sup>1</sup> (\$BN)	\$5.4

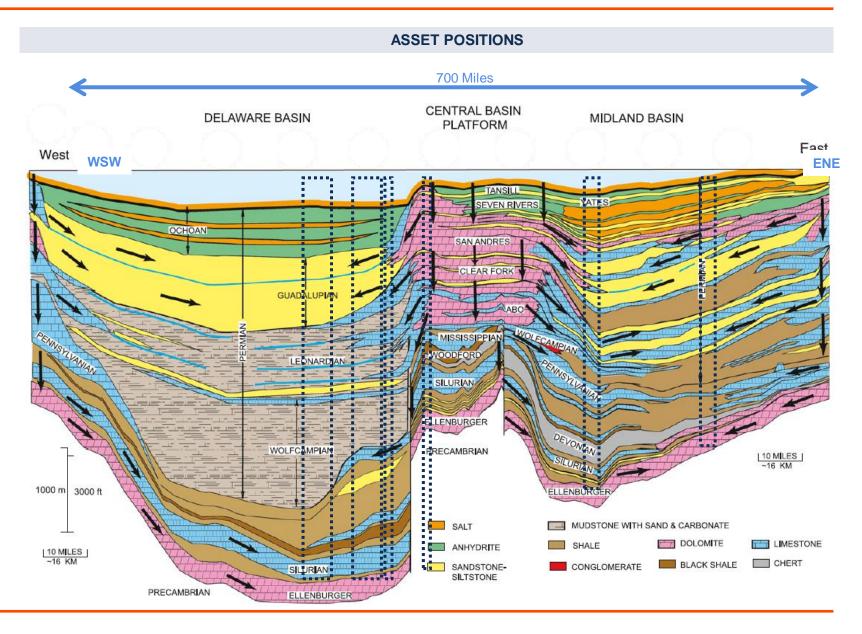




# LIFE OF FIELD DEVELOPMENT PHILOSOPHY

#### **CRITICAL CONCEPTS**

- Multi-interval development reduces likelihood of "uneconomic" child wells and future inventory loss
- Development Intervals are evaluated on an individual and project level basis to design custom drilling and completion programs that optimize recoveries and economic returns
- Longer-term development plans are continuously refined as new data enters the evaluation cycle





### A MULTIDISCIPLINARY APPROACH TO ASSET DEVELOPMENT

#### RESERVOIR DEVELOPMENT OPTIMIZATION

- Fundamental understanding of stratigraphy, geomechanical and reservoir properties
- Integration of production and reservoir data into a geologic model to enable reservoir performance modelling
- Geo-mechanical properties, reservoir performance data to enable frac modelling, lateral placement and spacing optimization

#### PAD DEVELOPMENT AND PROGRAM OPTIMIZATION

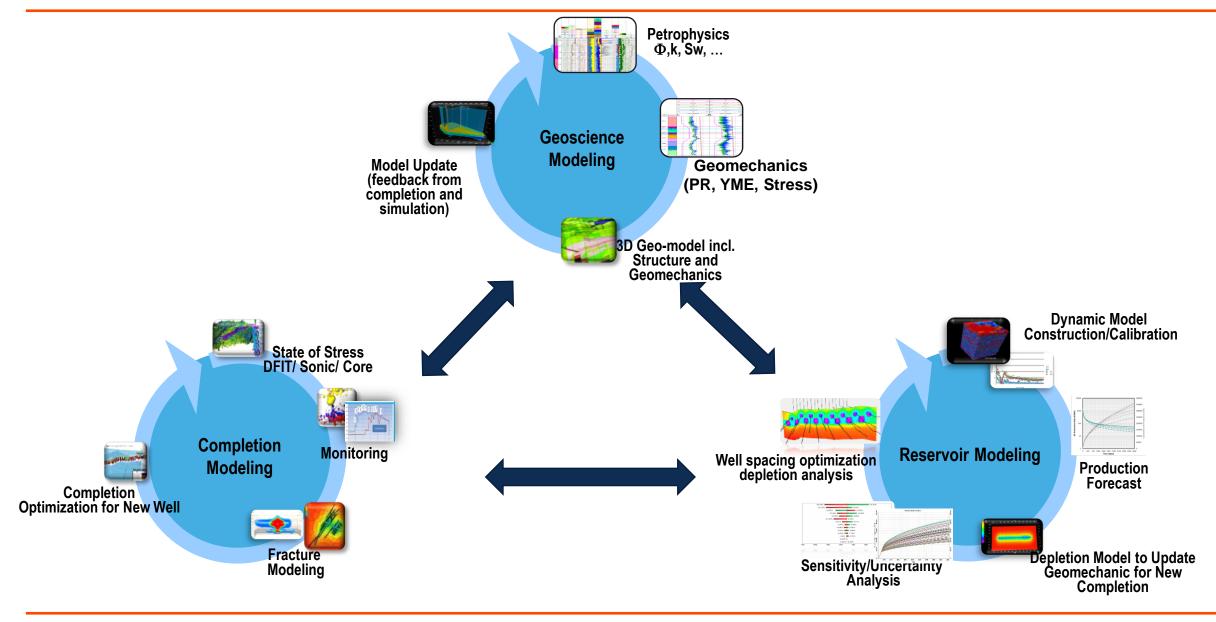
- Flexible development program that can respond to changing market conditions
- Assets ranked by production and reserve potential, economic parameters, and pricing sensitivity.
- Inventoried and classified to serve changing needs

Calls for a holistic and multidisciplinary approach.





# INTEGRATED MULTI-DISCIPLINE WORKFLOW

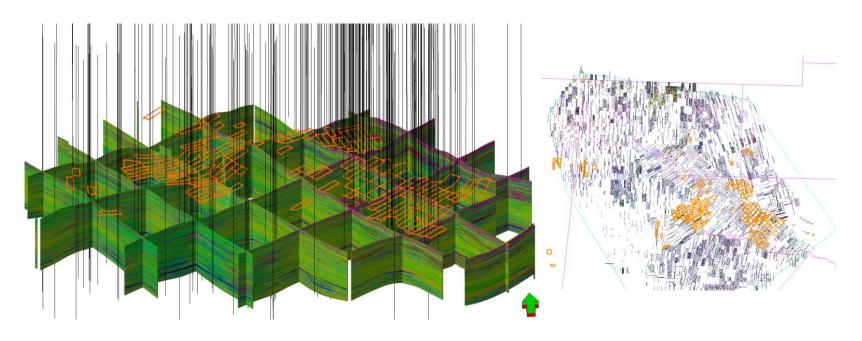


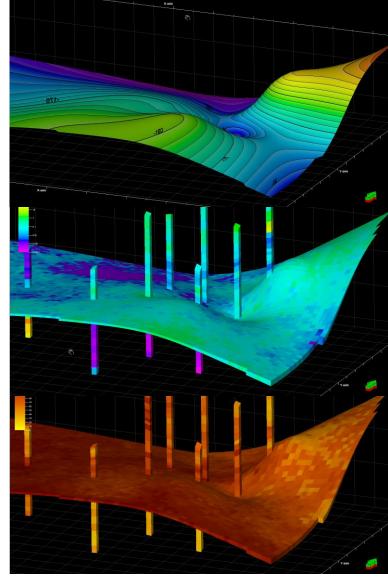


# **GEO-CELLULAR MODELING**

#### **HOLISTIC AND UNIFIED MODELS**

- Mapping geospatial distribution of reservoir facies, porosity systems and fracture networks
- Permian Models built across 1,250,000 acres
  - -650 million cells
  - 10 stratigraphic horizons
  - -600 individual wells with formation evaluations
  - 18,000 wells for structural model



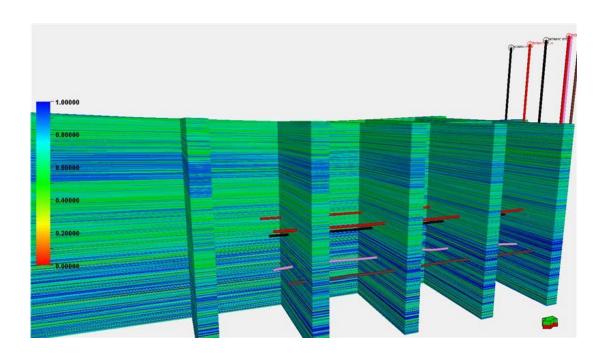


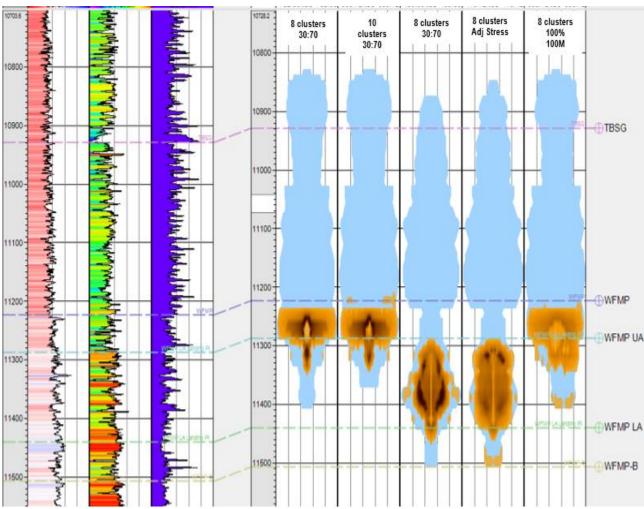


# **COMPLETION DESIGN AND OPTIMIZATION**

#### FRAC MODELLING OUTPUT EXAMPLE

- Designed based on resource, stratigraphy, and stress profiles
- Optimized for maximum reservoir contact and stimulation while minimizing impacts on offset wells and future inventory
- Execution planned to optimize placement and realize operational efficiency while minimizing ESG impact







# FIELD DEVELOPMENT PLAN OPTIMIZATION



# **Critical Input and Evaluation Steps:**

- Parent-child production forecast and depletion analysis with optimized completion design
- Well landing / configuration optimization
- Well spacing optimization
- Well timing optimization

#### **Additional Considerations:**

- Portfolio development obligations (CDC/HBP)
- Known offset operations (potential frac impacts)
- Infrastructure / facility constraints



# **OVERALL PROGRAM OPTIMIZATION**

#### MAXIMIZING RECOVERY WHILE PRESERVING ECONOMIC INVENTORY

#### OPTIMIZED PROGRAM DEVELOPMENT

#### **Intra-well Communication Management**

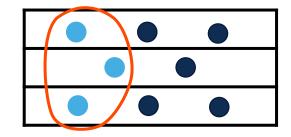
 Plan development to optimize production between zones that communicate improving overall project economics

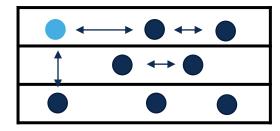


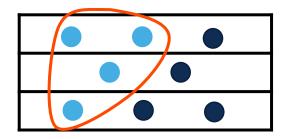
 Customize spacing where needed to account for prior development and to reduce offset frac impacts

#### **Depletion Tracking and Impact**

 Reduce time between development vintages to minimize effects of pressure depletion and voidage











#### SIGNIFICANT ADVANTAGES ACHIEVED

#### Lower well costs

 Maximizing crew efficiency, leveraging infrastructure, and bundling costs reduces overall capex

#### **Shorter cycle times**

 Project compression allows for faster cash recovery and better crew utilization

#### Less offset completion impact

Improved ratio of new wells to impacted production
 PLUS lower downtime for shut-ins and faster returns to production

#### + Parents, - children

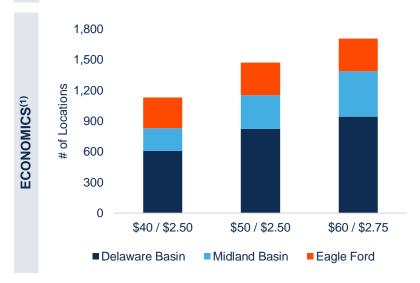
 Improved development timing through project scale and field efficiency lowers the number of potential child wells, boosting average future well productivity



# MULTI-YEAR INVENTORY DEVELOPMENT OUTLOOK

#### PRIMARY ZONE INVENTORY OVERVIEW

# >1,700 Gross Locations • Delaware Basin • Midland Basin • Eagle Ford



#### **DEVELOPMENT STRATEGY**

- "Primary zone" inventory limited to delineated zones in active development
- Over 1,100 risked locations with breakeven economics at \$40/Bbl or lower
  - All type curve economics risked for development interference learnings from scaled project deployment
  - Engineered spacing on a pad-by-pad basis

#### Delaware Basin

- Primary zones: 2BS / 3BS / WCA / WCB / WCC
- Average lateral: ~8,700'Average W.I.: ~83%
- Up to six wells per zone, with tailored spacing for offset wells
- Other potential zones: Canyon Sands / Avalon

#### Midland Basin

- Primary zones: MS / LS / WCA / WCB
- Average lateral: ~7,000'Average W.I.: ~87%
- Six to eight wells per zone, with custom spacing for offset wells
- Other potential zones: Clearfork / Jo Mill / Penn Shale / Atoka

#### Eagle Ford

- Primary zone: Lower Eagle Ford
- Average lateral: ~7,200' Average W.I.: ~90%
- Average lateral spacing of ~525'
- Other potential zones: Austin Chalk
- Enhanced oil recovery being evaluated



**INVENTORY BY AREA** 

# **SUMMARY**

- Repeatable and reliable asset development requires accurate and robust data management alongside a highly iterative, multi-disciplinary evaluation and planning process
- A deeper understanding of the geology and reservoir properties is required to fully determine the resource potential and optimize development
- Various sensitivity analyses on completion design, frac-hit prevention strategies and well spacing optimization can be performed once a detailed geological model is available, leading to optimized development and well performance
- Reservoir modeling helps to quantify pressure depletion risk and improve completion optimization as the complexity and size of projects increase over time
- Continuous re-evaluation of project level results and the addition of data to the geo-cellular and reservoir models is critical to further optimize future well & project performance, further enhancing visibility for longrange development plans and overall project economics

