

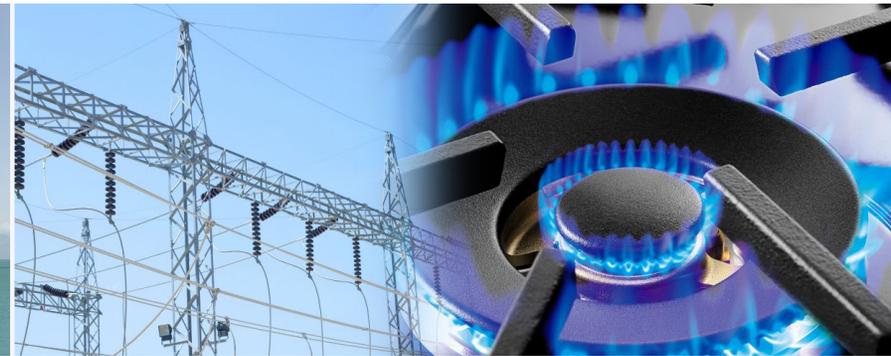
# Southern

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## E N E R G Y

### Positioned for Growth

*November 18, 2021*



A final short form prospectus containing important information relating to Southern Energy Corp. and the securities described in this document has been filed with the securities regulatory authorities in each of the provinces of Canada, other than Québec. A copy of the final prospectus, and any amendment, is required to be delivered with this document. This document does not provide full disclosure of all material facts relating to the securities offered. Investors should read the final prospectus and any amendment for disclosure of those facts, especially risk factors relating to the securities offered, before making an investment decision.

# Disclaimers



Prospective investors should rely only on the information contained in the final short form prospectus dated November 18, 2021 or any amendment thereto (the "Final Prospectus"). This presentation is qualified in its entirety by reference to, and must be read in conjunction with, the information contained in the Final Prospectus. A prospective investor is not entitled to rely on parts of the information contained in this presentation to the exclusion of others. Neither Southern Energy Corp. ("Southern", the "Company", "we", or "us") nor Eight Capital (the "Lead Agent"), on its own behalf and on behalf of INFOR Financial Inc., Haywood Securities Inc. and Canaccord Genuity Corp. (collectively and together with the Lead Agent, the "Agents") have authorized anyone to provide prospective purchasers with additional or different information. Southern and the Agents are not offering to sell shares in any jurisdiction where the offer or sale of such securities is not permitted.

The contents of this presentation are not to be construed as legal, financial or tax advice. Each prospective investor should contact his, her or its own legal advisor, independent financial advisor or tax advisor for legal, financial and tax advice. No representation or warranty, express or implied, is made or given by or on behalf of Southern or any of its subsidiaries or any of the directors, officers or employees of such entities as to the accuracy, completeness or fairness of the information or opinions contained in this presentation and no responsibility or liability is accepted by any person for such information or opinions.

For prospective purchasers outside Canada, neither Southern nor the Agents have done anything that would permit this offering or possession or distribution of the Final Prospectus or any amendment thereto, in any jurisdiction where action for that purpose is required, other than in Canada. Prospective purchasers are required to inform themselves about, and to observe any restrictions relating to, this offering and the possession or distribution of the Final Prospectus. In this presentation, all amounts are in Canadian dollars, unless otherwise indicated. Capitalized terms that are not defined in this presentation have the meanings ascribed to them in the Final Prospectus. Any graphs, tables or other information in this presentation demonstrating the historical performance of Southern or any other entity contained in this presentation are intended only to illustrate past performance of such entities and are not necessarily indicative of future results of Southern.

**There is no minimum amount of funds that must be raised under this Offering. This means that the Company could complete this Offering after raising only a small proportion of the Offering amount set out in the Final Prospectus.**

## Forward-Looking Statements

Certain information contained herein constitutes "forward-looking statements," which can be identified by the use of terms such as "forecast", "may", "will", "should", "expect", "anticipate", "project", "estimate", "intend", "continue", "target" or "believe" (or the negatives thereof) or other variations thereon or comparable terminology. Forward-looking information in this Presentation may include, but is not limited to, statements about: corporate strategy, objectives, strengths and focus of Southern; the intentions of management and Southern with respect to its growth strategy and business plan; Southern's intentions to provide a dividend to investor in the medium to long term; Southern's expectations regarding decline rates and the sustainability of its production; Southern's expectations regarding its drilling inventory and opportunities, including costs and returns therefrom; type well economic metrics; Southern's plans regarding future workovers and recompletions, including anticipated effects on corporate decline rates; Southern's acquisition and consolidation strategy and targets; Southern's production forecasts; Southern's anticipated abandonment and reclamation obligations; Southern's cost-cutting measures and the results thereof; Southern's ESG initiatives; and predictions regarding commodities pricing and industry fundamentals, including natural gas demand and supply. Statements relating to "reserves" are also deemed to be forward-looking statements, as they involve the implied assessment, based on certain estimates and assumptions, that the reserves described exist in the quantities predicted or estimated and that the reserves can be profitably produced in the future.

Due to various risks and uncertainties, actual events or results or actual performance of the Company may differ materially from those reflected or contemplated in such forward-looking statements. As a result, any potential investor should not rely on such forward-looking statements in making their investment decisions. No representation or warranty is made as to the achievement or reasonableness of and no reliance should be placed on such forward-looking statements. Certain risk factors such as volatility in the market prices for oil and natural gas, unanticipated changes in any applicable royalty regime, uncertainties associated with estimating resources and reserves, geological problems, technical problems, drilling and seismic problems, liabilities and risks including environmental liabilities and risks inherent in oil and natural gas operations, fluctuations in currency and interest rates, incorrect assessments of the value of acquisitions, unanticipated results of exploration and development drilling and related activities, competition for capital, competition for acquisitions of reserves and resources, competition for undeveloped lands, competition for skilled personnel, unpredictable weather conditions, the impact of general economic conditions and political conditions, industry conditions including changes in laws and regulations including adoption of new environmental laws and regulations, the possibility of future financings and divestitures, expectations regarding future production and obtaining required approvals of regulatory authorities can materially affect actual results. With respect to forward-looking information contained in this Presentation, the Company has made assumptions regarding, among other things: the legislative and regulatory environment in the jurisdiction where it intends to operate, the impact of increasing competition, costs related to exploration, drilling, seismic and the development of oil and gas properties will remain consistent with historical experiences, anticipated results of exploration and drilling activities and the price of oil and gas. Although Southern believes that the expectations and assumptions on which the forward-looking statements are based are reasonable, undue reliance should not be placed on the forward-looking statements because Southern can give no assurance that they will prove to be correct.

Please refer to Southern's most recent Annual Information Form and MD&A for additional risk factors relating to Southern, which can be accessed either on Southern's website at [www.southernenergycorp.com](http://www.southernenergycorp.com) or under the Company's profile on [www.sedar.com](http://www.sedar.com). Readers are cautioned not to place undue reliance on this forward-looking information, which is given as of the date hereof, and to not use such forward-looking information for anything other than its intended purpose. Southern undertakes no obligation to update publicly or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by law.

**All figures in USD unless otherwise specified**

# Disclaimers



## FOFI

This Presentation contains future-oriented financial information and financial outlook information (collectively, "FOFI") about Southern's prospective results of operations, production, investor yields, working capital, capital expenditures, enterprise value, share price, investment yield, debt, free cash flow, NPV10, IRR, return of capital, operating costs, cost reductions and components thereof, all of which are subject to the same assumptions, risk factors, limitations and qualifications as set forth in the above paragraphs. FOFI contained in this Presentation was approved by management of the date of this Presentation and was provided for the purpose of providing further information about Southern's anticipated future business operations. Southern disclaims any intention or obligation to update or revise any FOFI contained in this Presentation, whether as a result of new information, future events or otherwise, unless required pursuant to applicable law. Readers are cautioned that the FOFI contained in this Presentation should not be used for purposes other than for which it is disclosed herein.

## Oil and Gas Advisories

### BOE Disclosure

The term barrels of oil equivalent ("BOE") may be misleading, particularly if used in isolation. A BOE conversion ratio of six thousand cubic feet per barrel (6Mcf/bbl) of natural gas to barrels of oil equivalence is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. All BOE conversions in the report are derived from converting gas to oil in the ratio mix of six thousand cubic feet of gas to one barrel of oil.

### Information Regarding Disclosure on Reserves and Resources

All reserves information in this Presentation was prepared by Netherland, Sewell & Associates, Inc. ("NSAI") effective April 1, 2021 (the "CPR") using average forecast pricing of NSAI in accordance with National Instrument 51-101 – *Standards of Disclosure for Oil and Gas Activities* ("NI 51-101") and the most recent publication of the Canadian Oil and Gas Evaluation Handbook (the "COGE Handbook"). All type well information in this Presentation was prepared by the Company's internal Qualified Reserve Evaluator in accordance with NI 51-101 and the COGE Handbook.

All reserve references in this Presentation are "Company share reserves". Company share reserves are the applicable company's total working interest reserves before the deduction of any royalties and including any royalty interests payable to the company. It should not be assumed that the present worth of estimated future amounts presented in this Presentation represent the fair market value of the reserves. There is no assurance that the forecast prices and costs assumptions will be attained, and variances could be material. The recovery and reserve estimates of the crude oil, natural gas liquids and natural gas reserves provided herein are estimates only and there is no guarantee that the estimated reserves will be recovered. Actual crude oil, natural gas and natural gas liquids reserves may be greater than or less than the estimates provided herein. All evaluations and summaries of future net revenue are stated prior to the provision for interest, debt service charges or general and administrative expenses and after deduction of royalties, operating costs, estimated well abandonment and reclamation costs and estimate future capital expenditures. The reserves estimates contained in this Presentation are estimates only and there is no guarantee that the estimated reserves or resources will be recovered.

This Presentation provides certain information relating to properties in close proximity to the Company's properties, which is "analogous information" as defined by applicable securities laws. This analogous information is derived from publicly available information sources, which the Company believes are predominantly independent in nature. Some of this data may not have been prepared by qualified reserves evaluators or auditors and the preparation of any estimates may not be in strict accordance with the COGE Handbook. Regardless, estimates by engineering and geotechnical practitioners may vary and the differences may be significant. The Company believes that the provision of this analogous information is relevant to the Company's activities and forecasting, given its property ownership in the area; however, readers are cautioned that there is no certainty that the forecasts provided herein based on analogous information will be accurate.

Certain type curves disclosure presented herein represents estimates of the production decline and ultimate volumes expected to be recovered from wells over the life of the well. The type curves represent what management thinks an average well will achieve, based on methodology that is analogous to wells with similar geological features. Individual wells may be higher or lower but over a larger number of wells, management expects the average to come out to the type curve. Over time type curves can and will change based on achieving more production history on older wells or more recent completion information on newer wells.

In this presentation, the Company has provided certain information on the prospectivity and the production rate of wells on properties adjacent to the Company's acreage which is "analogous information" as defined by applicable securities laws. This analogous information is derived from publicly available information sources which the Company believes are predominantly independent in nature.

# Disclaimers



This Presentation contains metrics commonly used in the oil and natural gas industry which have been prepared by management, such as "IP30" and "NPV10". These terms do not have a standardized meaning and may not be comparable to similar measures presented by other companies, and therefore should not be used to make such comparisons. Management uses these oil and gas metrics for its own performance measurements and to provide shareholders with measures to compare our operations over time. Readers are cautioned that the information provided by these metrics, or that can be derived from the metrics presented in this Presentation, should not be relied upon for investment or other purposes.

"NPV10" represents the net present value (net of capex) of net income discounted at 10%, with net income reflecting the indicated oil, liquids and natural gas prices and IP rate, less internal estimates of operating costs and royalties.

"IP30" is the initial production from a well for the first 720 hours (30 days) based on operating/producing hours.

## Non-GAAP Measures

In this Presentation, certain key performance indicators and industry benchmarks such as IRR, enterprise value and market capitalization are used to analyze financial and operating performance. These key performance indicators and benchmarks are key measures of profitability and provide investors with information that is commonly used by other oil and gas companies. These key performance indicators and benchmarks as presented do not have any standardized meaning prescribed by generally accepted accounting principles in the United Kingdom or Canada and therefore may not be comparable with the calculation of similar measures for other entities.

"IRR" is the discount rate required to arrive at an NPV equal to zero. Rates of return set forth in this Presentation are for illustrative purposes. There is no guarantee that such rates of return will be achieved in the future.

"Enterprise value" is calculated as the market capitalization of the Company plus outstanding debt (convertible debentures and term debt), where "market capitalization" is defined as the total number of common shares outstanding multiplied by the price per share at a given point in time.

## Important notice regarding track record and certain financial information

Past performance is not a reliable indicator or guide to future performance. Potential investors should be aware that any investment in the Company is speculative, involves a high degree of risk, and could result in the loss of all or substantially all of their investment.

## Third Party Information

Certain information contained in this Presentation has been obtained from published and non-published sources prepared by other parties, which in certain cases have not been updated through the date hereof. While such information is believed to be reliable for the purpose used in this Presentation, neither the Company nor the Agents assumes any responsibility for the accuracy or completeness of such information and such information has not been independently verified by the Company or the Agents. Except where otherwise indicated herein, the information provided in this Presentation is based on matters as they exist as of the date of preparation and not as of any future date, and will not be updated or otherwise revised to reflect information that subsequently becomes available, or circumstances existing or changes occurring after the date hereof.

This presentation is not an offer of the securities for sale in the United States. The securities have not been registered under the U.S. Securities Act of 1933, as amended, and may not be offered or sold in the United States absent registration or an exemption from registration. This presentation shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of the securities in any state in which such offer, solicitation or sale would be unlawful.

## Abbreviations

1P	proved reserves	ESG	Environmental, Social and Governance	IRR	internal rate of return percentage	NPV	net present value
2P	proved plus probable reserves	EUR	estimated ultimate recovery	lb	pound	NPV10	net present value with a discount rate of 10%
Bbl	barrel	FD	fully diluted	mi <sup>2</sup>	square miles	OPEX	operational expenditures
bbl/d	barrels per day	ft	foot	MMbbl	million barrels	PDP	proved developed producing reserves
Bcf	billion cubic feet of natural gas	GJ	Gigajoules	MMbtu	million British thermal units	PUD	proved undeveloped reserves
Bcf/d	billion cubic feet per day of natural gas	HBP	held by production	MMcf	million cubic feet of natural gas	Tcf	trillion cubic feet of natural gas
boe	barrels of oil equivalent	HZ	horizontal	MMcf/d	million cubic feet per day of natural gas	YoY	year over year
boe/d	barrels of oil equivalent per day	IP30	average hydrocarbon production rate for the first 30 days of a well's life	NGLs	natural gas liquids		



# October 2021 Equity Raise Summary

## The Plan

Up to \$15+ MM<sup>(1)</sup>

Equity fundraise

Fund a high-impact, up to 3 well development drilling and re-completion program in the Gwinville field, starting in Q4 with first production in late January 2022

Development budget of up to ~ \$12 MM

Incremental capital to be used for general corporate purposes and fund a deposit on a future acquisition

Fundraising to be made available to shareholders in the U.K. and Canada

Hedge a portion of the new gas volumes during winter pricing to protect robust well economics

## Timing & Rationale

“Buy Low, Drill High”

Consistent with business plan

> 50% increase in gas prices to ~ \$6/mmbtu since AIM listing in August has expedited our organic growth plans

A successful raise would provide the capital necessary to fund a deposit on a near-term acquisition and expand re-completion program

Increased cash flow can accelerate other Mississippi gas developments and acquisitions

<sup>1)</sup> No minimum amount of funds must be raised under the Offering. This means that the Corporation could complete the Offering after raising only a small proportion of the Offering amount set out above. There can be no assurance that the Corporation will receive sufficient net proceeds from the Offering to accomplish some or all of the objectives set out above. In the event the Offering amount is less than the Maximum Offering, the Corporation intends to utilize the proceeds of the Offering towards the drilling of fewer horizontal Selma Chalk wells in the Gwinville field, or as needed towards the Corporation's best interests, as decided in the sole discretion of management.

# Investment Highlights and Value Proposition



## U.S. Gulf Coast focused energy company with a goal to create shareholder value by:

Consolidating, optimizing and developing high quality conventional assets in under-exploited basins in U.S. Gulf Coast

- Long term shareholder equity appreciation through low-risk organic growth
- Return of capital through sustainable yield supported by low decline assets

Capitalizing on management's experience in the area to enhance asset values with a history of creating value in prior companies

- Track record of creating value through substantial acquisition and organic growth
- More than 7 years of operating & asset optimization experience in these basins

U.S. Gulf Coast area provides some of the best natural gas pricing in North America and is proximal to the expanding LNG export hub

- The Gulf Coast area has access to Henry Hub pricing which is becoming a proxy for North American LNG pricing
- The U.S. will be central to the expanding appetite for global natural gas imports

Diversified market presence and global access to capital by adding a London (AIM) listing



**Southern Energy**  
*Focus on efficient,  
sustainable, per share growth*



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## I. Executive Summary

# Positioned for Growth



Southern Energy is an established, cash generative, conventional gas producer in the southeast United States

## Gas Focused Growth Strategy

- Management has extensive operating experience in the Southeast United States
- Positioned to premium commodity pricing in North America, NYMEX (Henry Hub), LLS
- Low decline (< 12%) base production compared to 30+ % in unconventional shale plays
- Substantial low-cost, high return drilling inventory across existing assets
- Focused and disciplined asset consolidation strategy characterized by high quality conventional assets with low decline, long life and multi-zone organic growth potential
- Added AIM listing to expand global access to capital to execute on business plan
- Portfolio is being built to deliver shareholder distributions over the medium – long term

Capitalization		Metrics	
Trading Symbol (TSXV, AIM)	SOU.V, SOUC	Land	> 31,000 acres
Common Shares Outstanding (Basic / FD)	361.3 / 729.3	Production <sup>(4)</sup>	~ 2,120 boe/d
Employee/Director Ownership (Basic / FD)	17% / 24%	1P Reserves <sup>(5)</sup>	10.4 MMboe
Market Capitalization <sup>(1)</sup>	\$17.3 MM	1P NPV10 <sup>(5)</sup>	\$38.9 MM
Debt <sup>(2)</sup>	\$11.9 MM	2P Reserves <sup>(5)</sup>	11.6 MMboe
Enterprise Value <sup>(3)</sup>	\$29.2 MM	2P NPV10 <sup>(5)</sup>	\$44.8 MM

1) Market capitalization is calculated as of October 1, 2021 using a share price of CDN \$0.06/share; F/x rate of US\$0.80/CDN\$

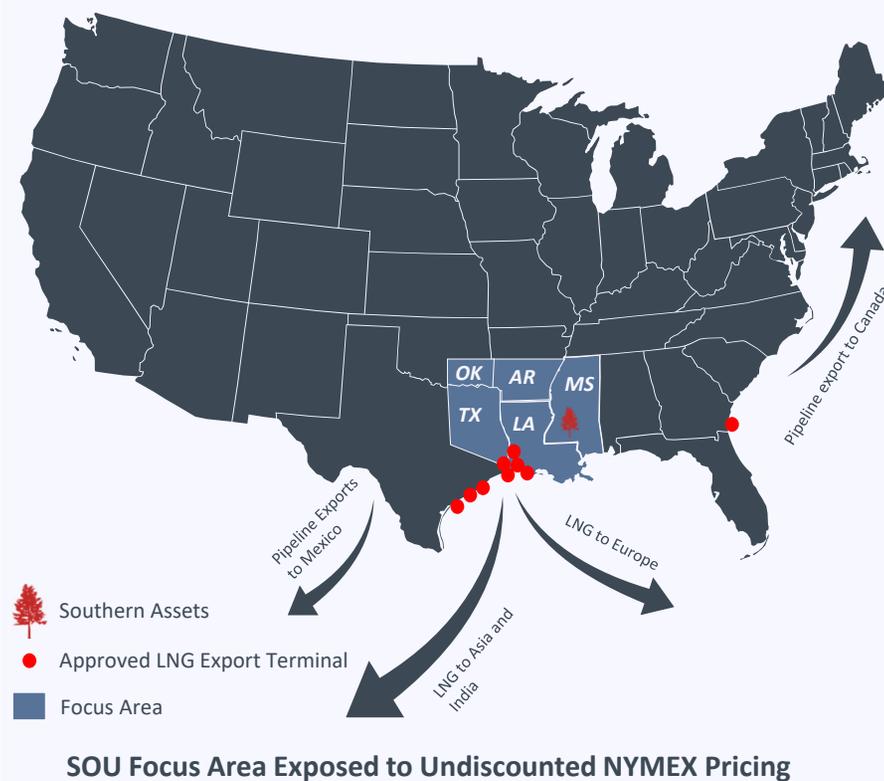
2) Includes \$6.7 MM of convertible debentures and \$5.2 MM of term debt at October 1, 2021

3) Enterprise value is the sum of market capitalization, convertible debentures and term debt at October 1, 2021

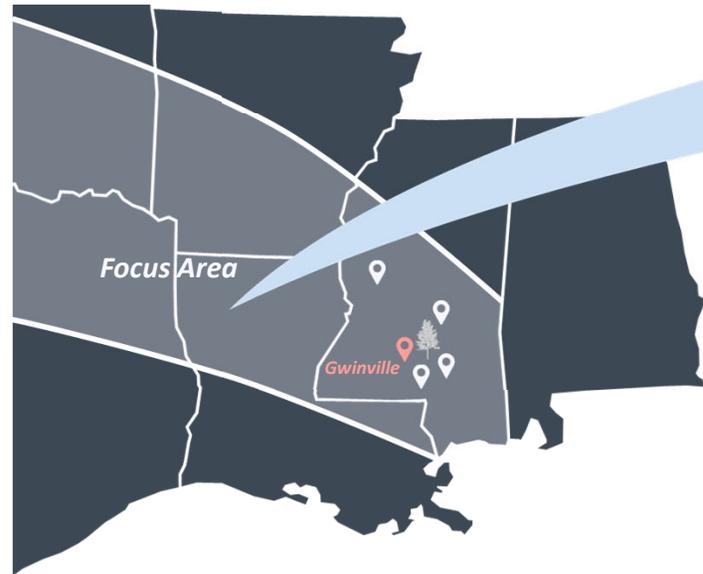
4) Current working interest sales production estimate at October 1, 2021; consisting of 163 bbl/d of oil (8%), 23 bbl/d of NGLs (1%) and 11.6 MMcf/d of natural gas (91%)

5) Company Gross Reserves, based on Competent Persons Report by Netherland, Sewell and Associates, Inc., estimated at April 1, 2021 using average CDN engineering consultants April 1, 2021 price forecast. Disclosure by product type is included in the Competent Person Report available on SEDAR.

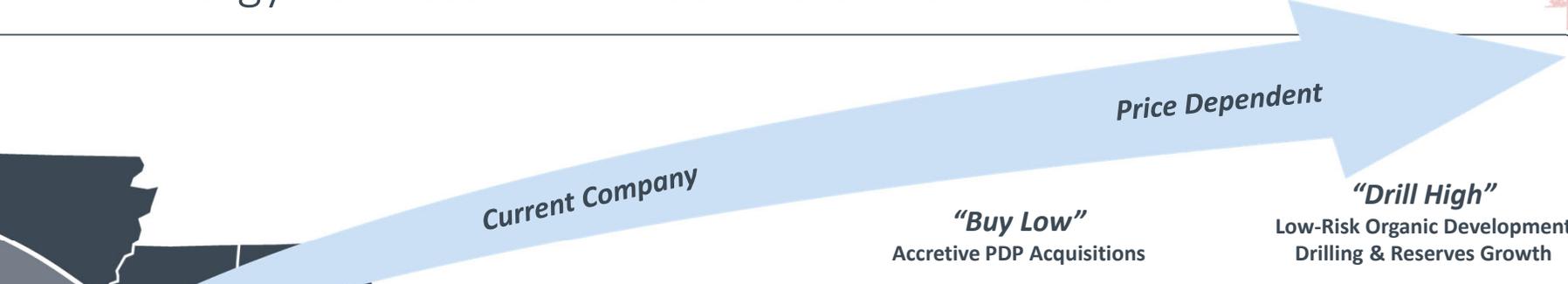
## Southern Energy Assets – Global Gas Export Perspective



# Southern Energy Business Plan – Focused on Value Creation



-  Southern Office
-  Core Areas
-  Gwinville Development



## Strong Base & Asset Optimization

- ✓ Low risk, stable base cash flow
- ✓ Accretive PDP bolt-on acquisitions
- ✓ History of class-leading operating cost reductions and value enhancements
- ✓ **10-15 workovers/recompletions planned in the next 6-8 months to reduce base declines < 10% / annum**
- ✓ **Gas pricing has increased > 50% since AIM listing in August, expediting "Drill High" strategy to add up to three new horizontal wells at existing Gwinville field**

## "Buy Low"

### Accretive PDP Acquisitions

- ✓ Disciplined consolidation strategy utilizing management's proprietary database and technical advantage
- ✓ Discounted PDP valuations that contain organic growth potential
- ✓ Management implementation of proven cost saving and optimization strategies
- ✓ Hedging strategy for acquisitions

## "Drill High"

### Low-Risk Organic Development Drilling & Reserves Growth

- ✓ Large scale, under-developed assets with low historic recovery from vertical wells
- ✓ Creation of large-scale reserve additions and multi-year drilling inventory
- ✓ Differentiating from peers with optionality for low risk, low cost growth of gas or liquids
- ✓ **Medium - long term investor yield**

***Build a large scale, sustainable cash flow platform through consolidating conventional assets in the U.S. Gulf Coast, providing future yield and low risk growth to shareholders in a socially and environmentally responsible manner***



## II. Asset Overview & Acquisition Strategy



# Mississippi Oil & Gas History – Home of Core Assets

## Mississippi Oil & Gas Highlights

> 2.0

Billion bbl cumulative oil

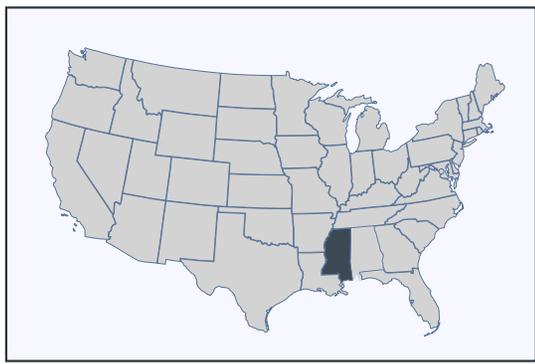
> 10

Tcf cumulative gas

> 34,000

Wells drilled to date

- Significant hydrocarbon recovery – Superior production on a per well basis than Texas or Louisiana
- First commercial oil well at Tinsley Field in 1939



### Intense exploration activity from the world's super majors in the 1930-60's

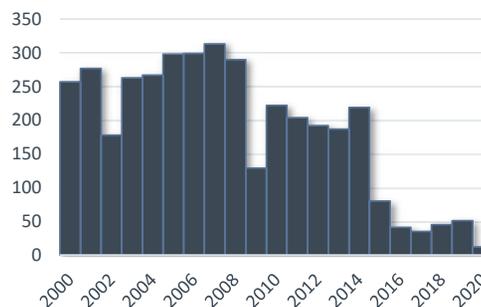
- Salt domes could be found using gravity and magnetic data
- Modern seismic hadn't been invented yet
- Humble Oil was very active in the Gulf and would become the largest domestic producer from 1940's into the 60's before becoming Exxon
- Gulf Oil moved east into the Gulf States after discovering Spindle Top in Texas

### Lack of recent activity in the area has resulted in a development opportunity

- Without a commercial shale play the larger companies, and their technical expertise, have not returned until recently with ConocoPhillips, EOG and Marathon extending the Austin Chalk play into Mississippi
- Southern brings a modern, data-driven analytical approach to optimization and development in these areas that has been absent for a long time
- Competitive advantage when looking at consolidation strategy in the right geological trends



MS - Wells Drilled by Year



Woodruff #1 discovery well 1939;  
Tinsley Field CTD 250 MMbbl

All data sourced from IHS Energy



# Core Southern Energy Asset Base

> 31,000

Acres (~ 93% HBP <sup>(1)</sup>)

~ 2,120

boe/d <sup>(2)</sup>

\$38.9

\$MM 1P PV10 <sup>(3)</sup>

< \$5.00

/boe Lifting/Processing Cost

## Mechanicsburg

- Liquids rich (> 25 bbl/MMcf oil & NGL)
- Field covered by 53 mi<sup>2</sup> 3D
- 6 PUD infill Cotton Valley locations

430  
boe/d

## Gwinville

- Multi-zone development upside
- Field covered by 48 mi<sup>2</sup> 3D

490  
boe/d

## Greens Creek

- Low cost Hosston recompletions
- Infill Hosston drilling opportunities
- Cotton Valley potential

200  
boe/d

Mississippi

Alabama



## Magee

- Field production > 10 MMbbl
- High quality oil - 40° API
- Vertical Hosston / Cotton Valley locations

50  
boe/d

## Mount Olive

- High deliverability gas wells
- Infill Eutaw drilling opportunities

660  
boe/d

## Williamsburg

- Infill Hosston/Sligo drilling locations
- Recent large oil discoveries on trend
- Proven Cotton Valley potential

150  
boe/d

Base decline ~ 12%

All core lands are Held By Production

1) CMS assets covering ~ 30,400 acres are > 97% held by production

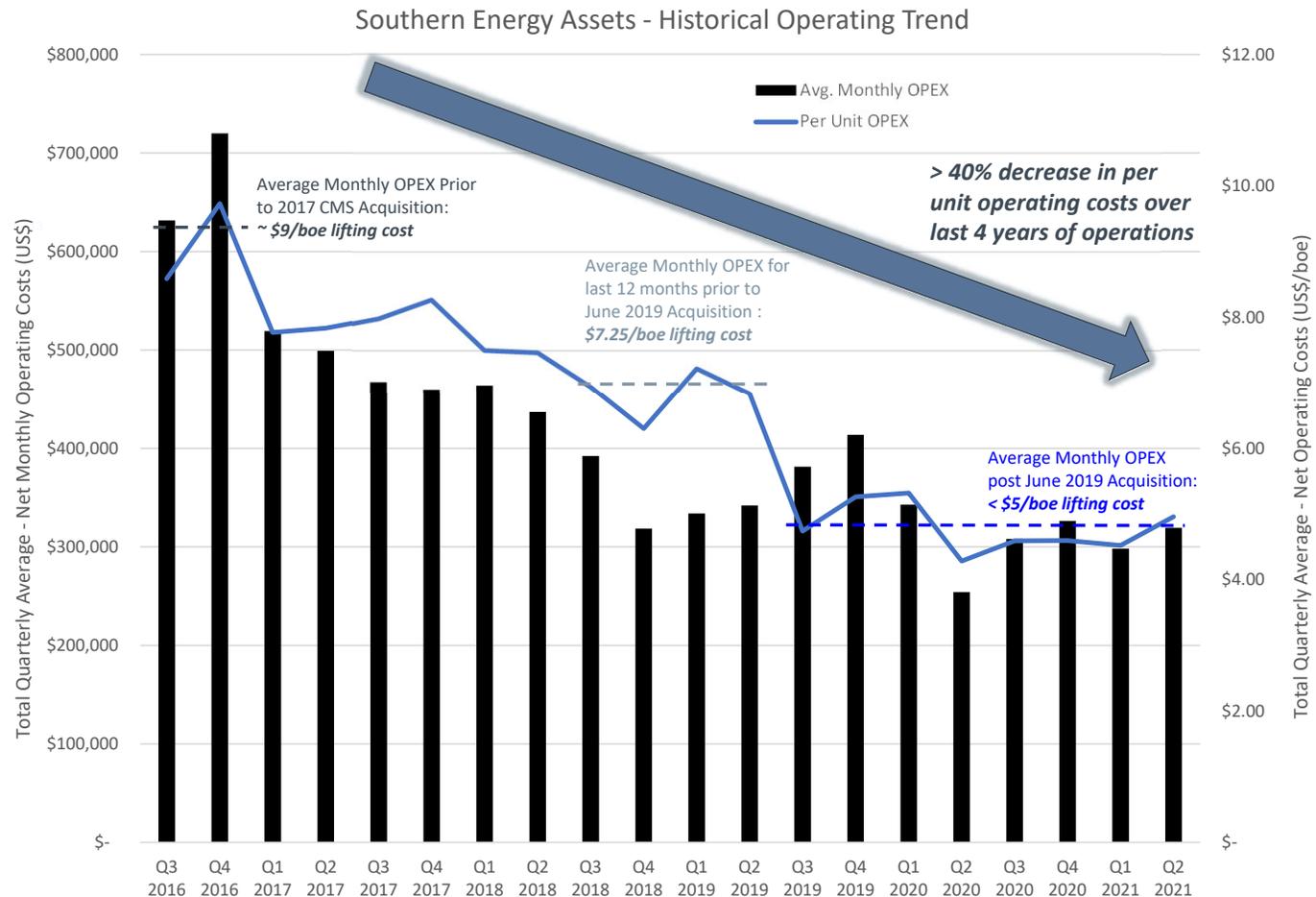
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# Asset Optimization Results



- Purchasing under-exploited assets within our operating area of expertise allows us to implement proven strategies to maximize value
- Office and Field staff are highly focused on cost control throughout all aspects of the operation
- Significant per unit operating cost reductions over the last 4 years *despite* a lack of capital development on the assets (low annual decline ~ 12%)
- Cost reductions achieved without spending maintenance capital (maintenance costs of < 5% of field revenues)



# Seven Years of Operating History Has Formed Strategic Advantage



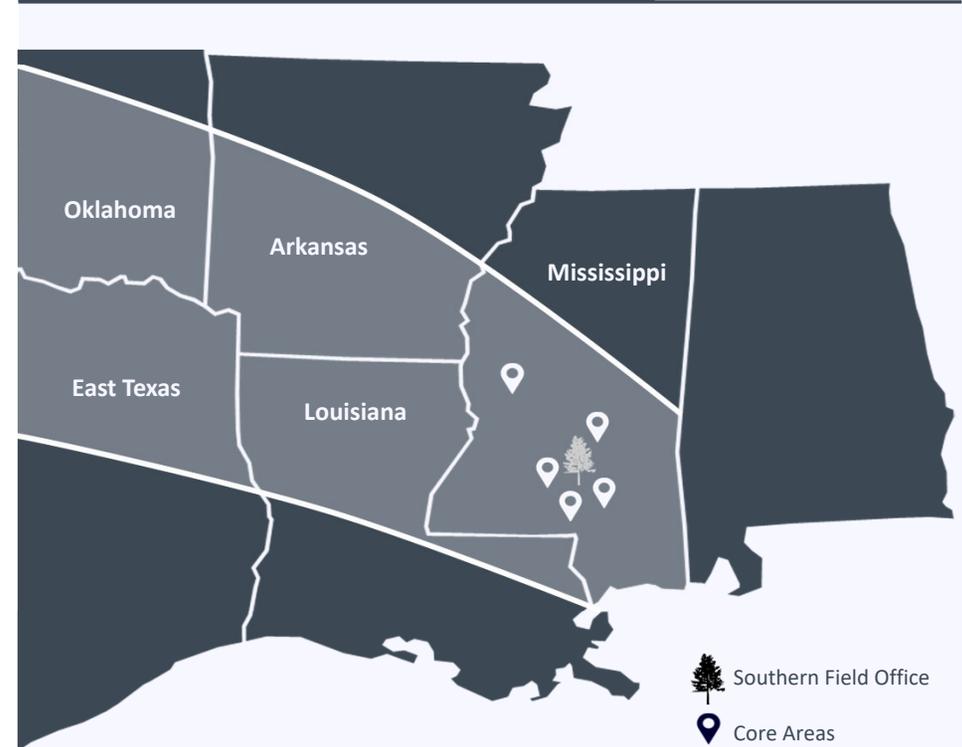
## Strategic Advantage

- Self-generated opportunities utilizing *proprietary database*
- Digital workflow has proven management successful in previous companies
- Allows for a significant amount of work to be completed in advance
- Assets in a specific geological fairway are technically evaluated and ranked for potential acquisition
- Technical ranking then overlaid with corporate drivers for final assessment

## Asset Acquisition Criteria

- Current commodity pricing environment conducive to a significant consolidation in the area – focused on accretive per share growth
- Operated, high WI assets with control of infrastructure – asset optimization
- Low decline, low risk assets, with a stable production base
- Quality under-developed conventional & quasi-conventional assets containing a significant inventory of drilling locations
- Pipeline of organic growth opportunities when long term strip pricing rises

## Consolidation & Development Focus Area





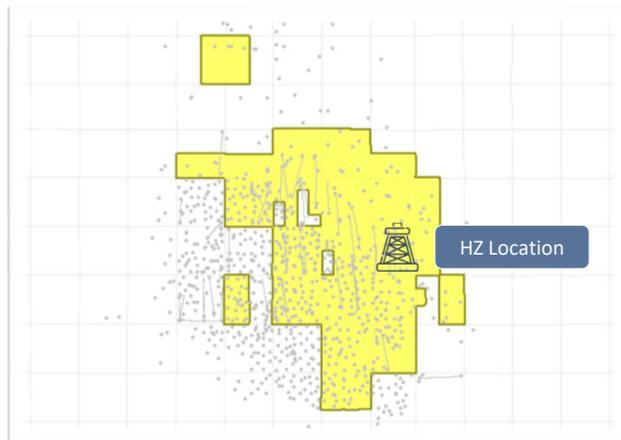
## II. Low-Risk Organic Growth Platform in the Gwinville Field

# Gwinville – Mississippi’s Largest Gas Field



## Significant Underdeveloped Gas Resource

- Multi-zone production of 1.5 Tcf, 12 MMbbl, current decline < 10%, with additional upside potential
- At least **2 stacked horizons** to be accessed with **horizontal drilling** and **modern completion designs**, following on the early success of previous operator
- Significant potential below the Tuscaloosa from zones which have produced more than 750 Bcf and 80 MMbbl from immediately offsetting fields
- **Owned and operated infrastructure** with expandable capacity



\*Data from IHS and MSOGB  
 \*MSOGB data used for pre-1976 production that is not reported or allocated in IHS

Low recovery, large location inventory

Well IRR's > 50% at \$3/MMBTU Henry Hub

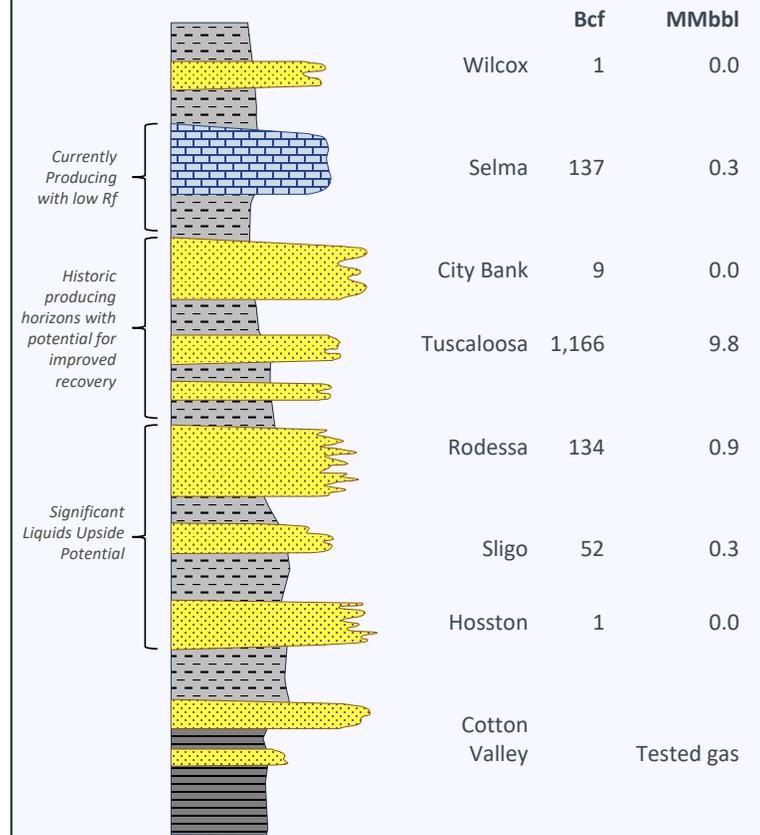
Multi-Stacked HZ Potential



### Planned HZ Location

- Field is covered by proprietary 3D seismic
- Delineated from vintage vertical wells
- EOG and Penn Virginia drilled 24 Gen-1 HZ's between 2005 – 2010
- Targeted Upper Selma, Lower Selma and the City Bank across the entire field
- SOU's first location will be a direct offset to an under-stimulated Gen-1 HZ
- **Lease and water storage constructed, and water wells have been drilled**

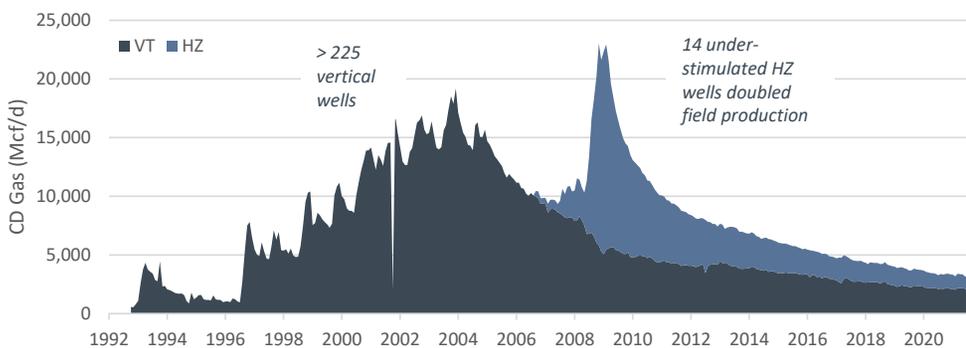
## Gwinville Field – Jefferson Davis County, MS



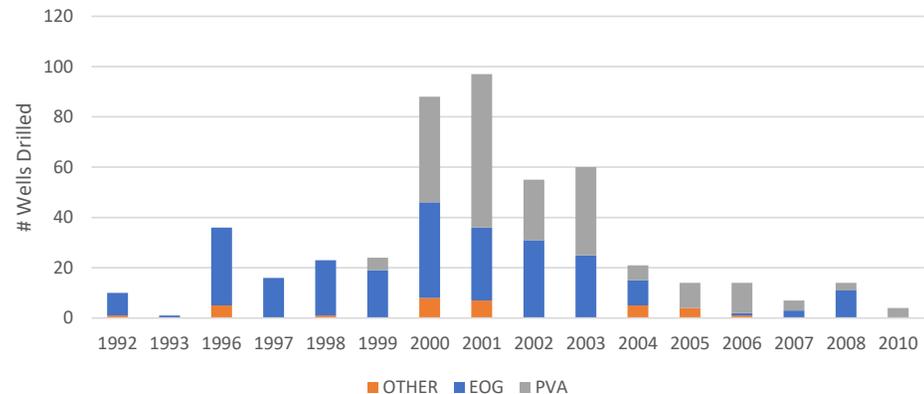


# Gwinville Development History – Ready for Modern Development

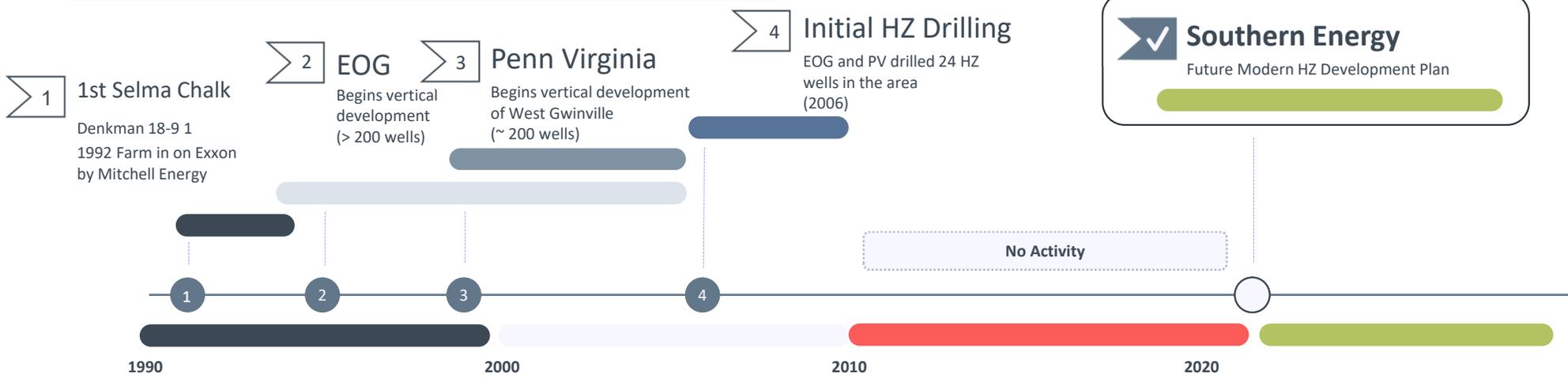
**Gwinville Production History – Southern Acreage Only**



**Wells Drilled by Year**



**Ready for Modern (Gen-3) Horizontal Redevelopment**



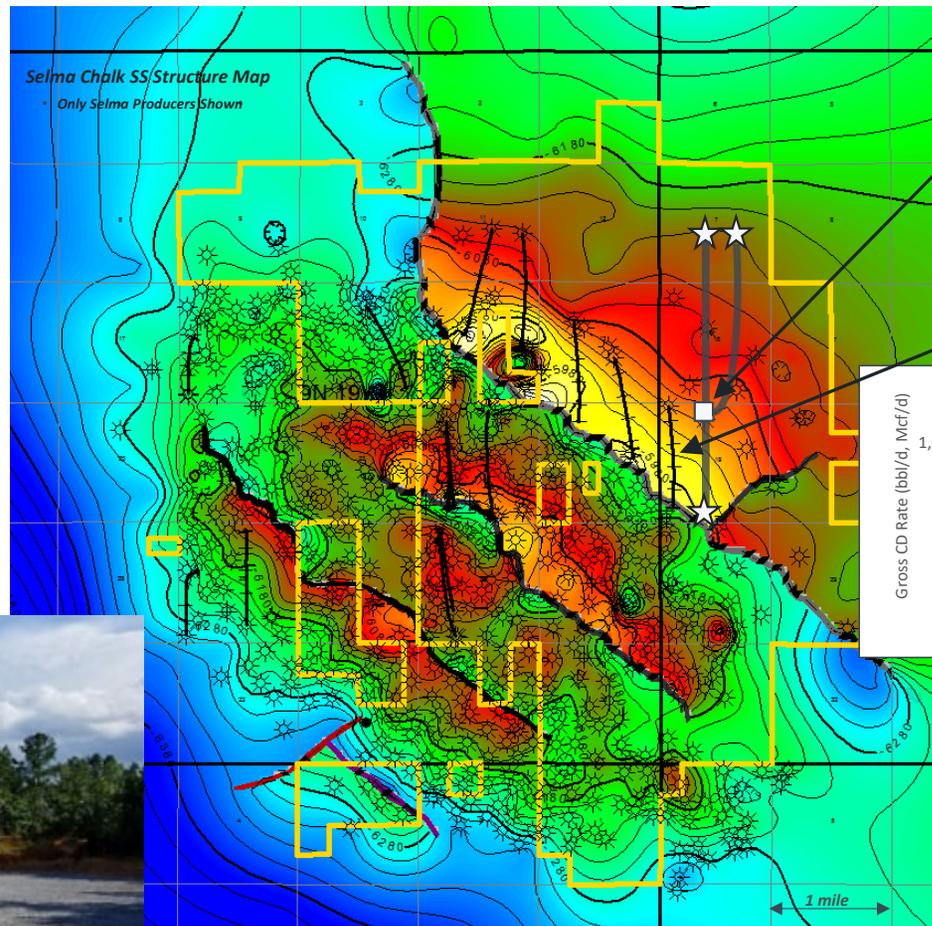
# Planned Q4 2021 Upper Selma Chalk HZ Drilling



## Key drivers to obtaining Gen-3 Well Results:

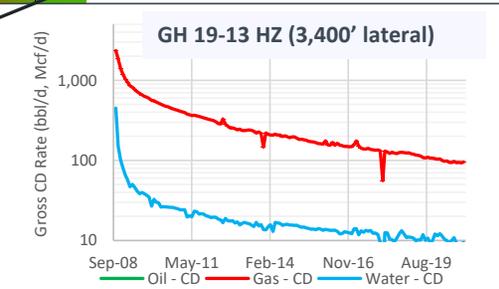
- Conservatively forecasting **6+ MMcf/d IP per well** in a strong gas price environment
- Will validate the type curve and costs for future Selma Chalk and City Bank HZ drilling locations, representing material remaining recoverable gas potential
- Anticipate significant PDP, 1P and 2P reserve additions following the Q4 2021 program
- Further substantial upside in the Lower Selma and City Bank formations

Gwinville 19-3 Padsite:



- **New Gwinville three-well padsite already built at 19-3 (see photo)**
- **Frac water pit constructed, water wells drilled**

**Example Gen-1 HZ well drilled by EOG:**  
Typical of early frac technology



This well had **4 frac stages**, giving a proppant loading of **695 lb/ft**

Initial rate when put to sales of **4.2 MMcf/d @ 600 psi FCP**

CTD of **1.4 Bcf (0.34 Bcf/stage)**  
**EUR of 1.8 BCF**

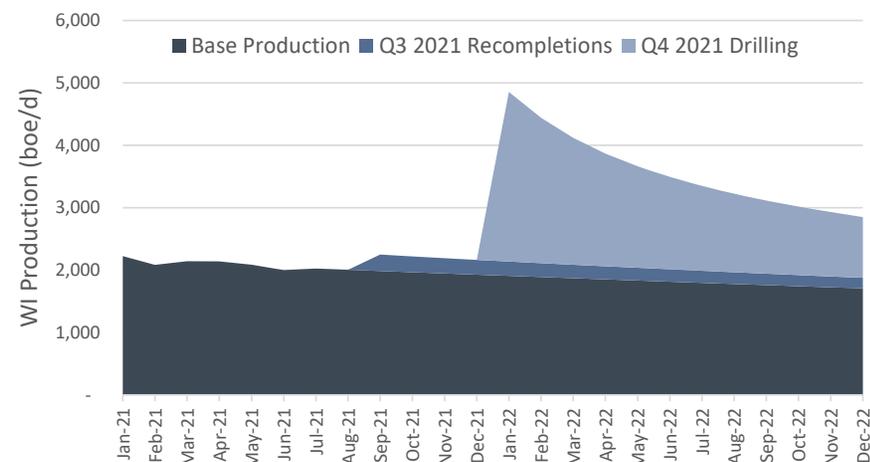


# Low Risk Organic Growth Program at Gwinville Field

## Development Proposal:

- Up to 3 HZ well program drilled in Q4 2021; On production in January 2022
- One well with ~ 4,000' lateral and two wells > 5,000' laterals
- Low incremental fixed operating costs as existing wells already carry that burden
- No additional G&A costs required – significant corporate cashflow boost
- Subsequent 1P and 2P drilling locations will be booked with a successful program resulting in material reserves growth

Single Well Economics – 5000' lateral		Horizontal Selma Chalk
IP 30	Oil (bbl/d)	11
	Gas (Mcf/d)	5,700
EUR	Oil (Mbbbl)	9
	Gas (Bcf)	4.3
DCET Type Curve Cost	(\$MM)	\$3.5



(1) Calculated at October 1, 2021 Strip Pricing



## Appendix

- a) *Environment, Social & Governance*
- b) *Leadership Team*
- c) *Board of Directors*
- d) *Gwinville Technical Summary*
- e) *Hedging Summary*

# Modern Energy Company - Environment, Social & Governance



*Southern's near term mission is to support the U.S. transition to cleaner sources of electricity generation by delivering low cost, conventional natural gas*



*Central Mississippi Operations Team*

## Core Values at Southern – Not Buzz Words



### Environment

- Actively engaged with Mississippi state regulators to help design best practices and policies for air emissions and freshwater usage
- **Meet or exceed recent EPA Standards to reduce gas emissions**
- Maintain a thorough asset integrity program designed to mitigate risk of environmental damage



### Safety

- Strong corporate safety culture with highly experienced and trained field personnel
- **No lost time incidents for employees or contractors since Management began operations in the southeastern U.S. in 2013**



### Social

- Southern supports employees who are active in their communities in the form of time or financial resources and encourages ongoing community involvement
- **Gender diversity with 45% of head office staff female**



### Governance

- Southern maintains clear controls and oversight with a diverse and independent board that is well aligned with shareholders
- All Board Committees and Chairs are independent
- Regular engagement with shareholders, employees and stakeholders



*Southern Energy is preparing our Corporate Sustainability Plan, incorporating the United Nations Sustainable Development Goals that we will focus our efforts towards*

# Leadership Team



Experienced and successful management team with a history of creating shareholder value together

Strong technical expertise combined with a modern approach to data and workflow **creates proven early mover advantage**



**Ian Atkinson**  
*President & CEO*

Mr. Atkinson has been the founder of several private and public oil and gas companies, with over 27 years of technical, executive and board of director experience. Mr. Atkinson was a founder, President and CEO of Gulf Pine Energy Partners LP (“Gulf Pine”) since 2014 (which was acquired by Southern in December 2018). Prior thereto, Mr. Atkinson was a founder and Senior Executive Officer of Athabasca Oil Corporation (“Athabasca”).

Holds a Master of Science in Engineering Degree and an Institute of Corporate Directors (ICD.D) designation.



**Calvin Yau**  
*CFO & VP Finance*

Mr. Yau began his career at Grant Thornton LLP and has over 19 years of financial and management experience in the oil and gas industry. Mr. Yau was a co-founder, VP Finance and CFO of Gulf Pine. Mr. Yau has served as a Financial Controller for a number of public companies since 2007, including Bronco Energy Ltd., Waldron Energy Corporation and Molopo Energy Limited.

Holds a Bachelor of Commerce Degree in Accounting and a CA designation.



**Gary McMurren**  
*VP Engineering*

Mr. McMurren has over 20 years of engineering, operational and management experience in the oil and gas industry and was a co-founder and VP Engineering of Gulf Pine. Mr. McMurren was formerly the Director of Light Oil at Athabasca. Prior thereto, he has held senior engineering positions at Galleon Energy Inc., ARC Resources Ltd., and Talisman Energy Inc.

Holds a Bachelor of Science in Chemical Engineering Degree and a Professional Engineer designation.



**Erin Buschert**  
*VP Land*

Ms. Buschert has over 20 years of land, legal, negotiating and management experience in the oil and gas industry. Ms. Buschert was a co-founder and VP Land of Gulf Pine. Prior thereto, she was the Manager, Land – East at Crescent Point Energy where she helped complete over 45 acquisitions in three years totalling over CAD\$1.4 Bn. Ms. Buschert previously held senior land positions at TriStar Oil & Gas Ltd., ARC Resources Ltd., and Talisman Energy Inc.

Holds a Bachelor of Science Degree in Anthropology and has been a member of CAPL since 2003.



**Jim McFadyen**  
*VP Operations*

Mr. McFadyen has over 25 years of operational, drilling and completions, and management experience in the oil and gas industry and was a co-founder and VP Operations of Gulf Pine. Mr. McFadyen was formerly the Operations Manager at Athabasca, with direct oversight of more than 50 dedicated field staff. Prior thereto, he has held senior operational positions at Fairborne Energy Ltd., Galleon Energy Inc., and Renaissance Energy Ltd.

Holds a Diploma in Mechanical Engineering Technology.

# Board of Directors



Experienced and talented leadership to guide the Execution of Southern Energy's Business Plan

## Board of Directors

### Ian Atkinson, P. Eng., ICD.D

Former founder and EVP of Athabasca Oil  
Former VP Engineering of Morpheus  
Director of Chronos Resources  
Previous technical positions at Renaissance Energy Ltd. and Talisman Energy Inc.  
Master of Science Degree in Engineering

### R. Steven Smith, CA, CPA

Former Director and Chief Financial Officer of Broadview Energy Inc.  
Director of Karve Energy and Jasper Brewing Inc.  
Former CFO and Portfolio Manager with Norrep Capital Management  
Previous positions at Canadian Pioneer Petroleum Ltd., Poco Petroleum Ltd., and Renaissance Energy Ltd.  
Business Degree in Accounting, Bachelor of Arts Degree in English

### C. Neil Smith, P.Eng., MBA, ICD.D

Former Chief Operating Officer of Crescent Point Energy  
Previous positions with PrimeWest Energy Inc., Coles Gilbert & Associates Ltd., Amoco Canada Petroleum Ltd. and Dome Petroleum Company Ltd.  
Bachelor of Applied Science – Geologic Engineering Degree  
Master of Business Administration Degree with Finance Major

### Andrew McCreath, CFA

Portfolio Manager at Forge First Asset Management Inc.  
The Market Commentator on BNN Bloomberg TV and host of "Weekly with Andrew McCreath"  
Bachelor of Business Administration Degree in Finance  
Master of Business Administration Degree in Economics

### Sony Gill

Corporate Secretary, Stikeman Elliott

### Bruce Beynon, P. Geol. (Chairman)

Former EVP, Exploration and Corporate Development of Baytex Energy  
Former President of Raging River Exploration  
Previous Executive positions at Compass Petroleum Partnership, Peloton Exploration Corp., Espoir Exploration Corp., and Keywest Energy Inc.  
Master of Science Degree in Geology

### Tamara MacDonald, ICD.D

Former SVP Corporate and Business Development of Crescent Point Energy  
Director of Equinor Canada and Spartan Delta Corp.  
Previous positions at NCE Petrofund Corp., Merit Energy Ltd., Tarragon Oil & Gas Ltd. And Northstar Energy Corp.  
Bachelor of Commerce Degree, with Petroleum Land Management Major

### Michael Kohut

CFO of Hammerhead Resources Inc.  
Chairman/Director of Big Rock Brewery Inc. and Director of Chronos Resources  
Former Executive positions at Paramount Resources Ltd. and Trilogy Energy Corp.  
Bachelor of Commerce Degree

### Joe Nally

Former Founder, Executive Director and Head of Natural Resources at Cenkos Securities PLC in London  
Former Partner, Director and Founder of Institutional Corporate Finance Department at Williams de Broe  
Graduate from the London School of Economics

## Special Advisors

### Paul Baay

President & CEO of Touchstone Exploration (dual listed AIM/TSX)

### Jay D. Haber

U.S. independent exploration and production, restructuring and M&A consultant

- 30+ years experience in the U.S. Gulf Coast region as Founder and CEO of Haber Resources Corporation, a private E&P company
- Founder of geophysical service company Geokinetics Inc.
- Former senior advisor to Apollo Global Management

*Mr. Nally has 40+ years experience in creating and funding many successful companies in the oil and gas sector in the U.K. markets*



# Gwinville Historic Vertical Production Results – EOG & Penn Virginia

## Operator Info

Both operators completed numerous wells in the Selma Chalk (~ 435 combined)

EOG targeted the upper porosity only – better rock quality

Penn Virginia targeted both the Upper and Lower but had poorer results

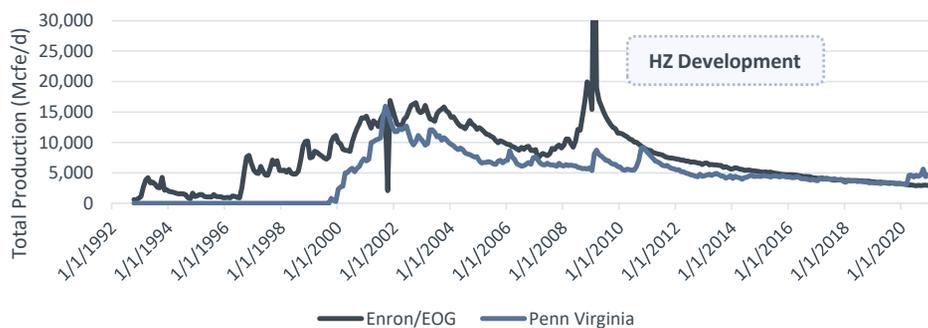
Believe the major difference is due to:

- EOG avg. sand = 175 klb (Upper only)
- PVA avg. sand = 135 klb (Upper & Lower: 84 klb Upper, 50 klb Lower)

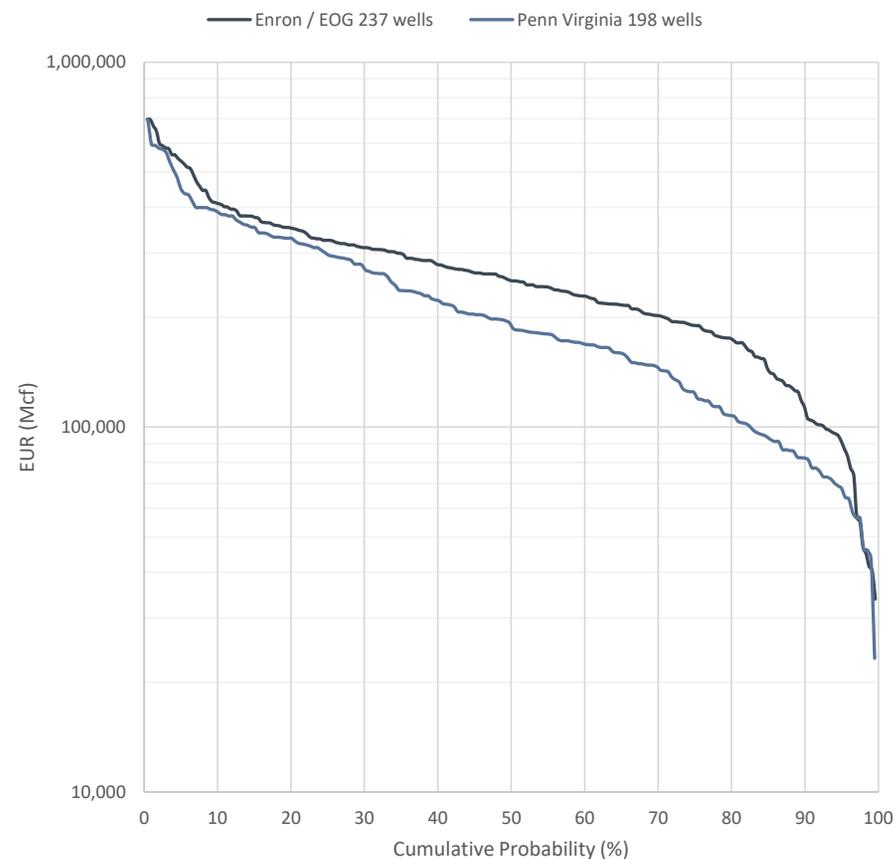
**Lower zone is tighter/thicker, but was stimulated with less sand**

In 2017, Gulf Pine recompleted a series of vertical lower Selma chalk intervals. The results indicated that both the Upper and Lower zones were likely contacted by a single, large fracture

## Selma Chalk Production by Original Operator



## Vertical Selma EUR Distribution



# Horizontal Development – Opportunity to Modernize



## History

### Commodity cycle caused shift in focus

- The last horizontal wells were drilled in 2010, with the majority being in 2008/09
- Both operators shifted their attention to oil plays (Eagle Ford), leading to their sale of gas assets in MS

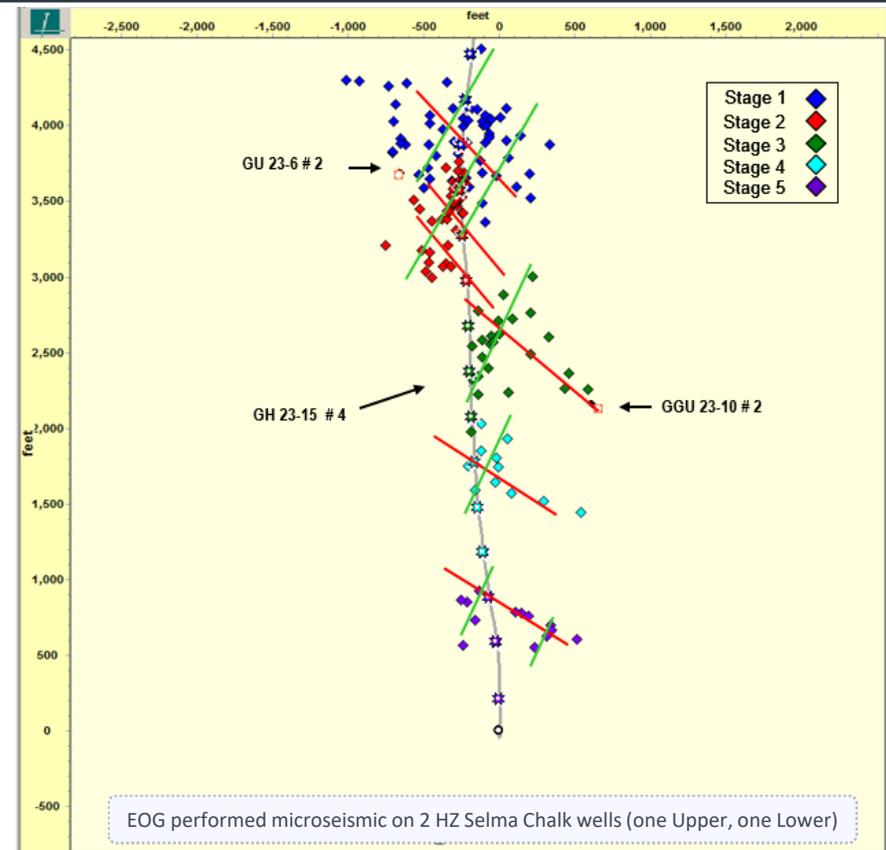
### Initial results successfully proved up multiple horizons

- Both the Selma Chalk and Eutaw City Bank provide prospective horizontal drilling opportunities supported by both vertical and initial horizontal success
- These wells were done in the early days of horizontal multi-stage fracs with low proppant loading and low stage counts (3 - 5 stages)
- The Eutaw only has 1 HZ well to date, but it is evident that there is significant upside (GH 14-15 #2 IP'd over 2 MMcf/d and has produced over 1.4 Bcf to date)
- Primary growth area is on the North and East side of Southern's land

### Modern completion design will provide a step change in economics

- Higher density completions and increased proppant loading has the potential to make a step change improvement in these wells
- Trials of refined completions have shown to be successful in an offsetting Selma Chalk field (Baxterville)

## Early Microseismic (2006)



# Gwinville Selma Chalk HZ Well Upside



## Transition to Modern Design

EOG 2006-2010

3,100 ft

Lateral Length

750 lb/ft

Proppant loading

4 stages

Avg. per well

IP30 of 1.6 MMcf/d  
EUR of 1.2 Bcf



SOU Planned

5,000 ft

Lateral Length

1500+ lb/ft

Proppant loading

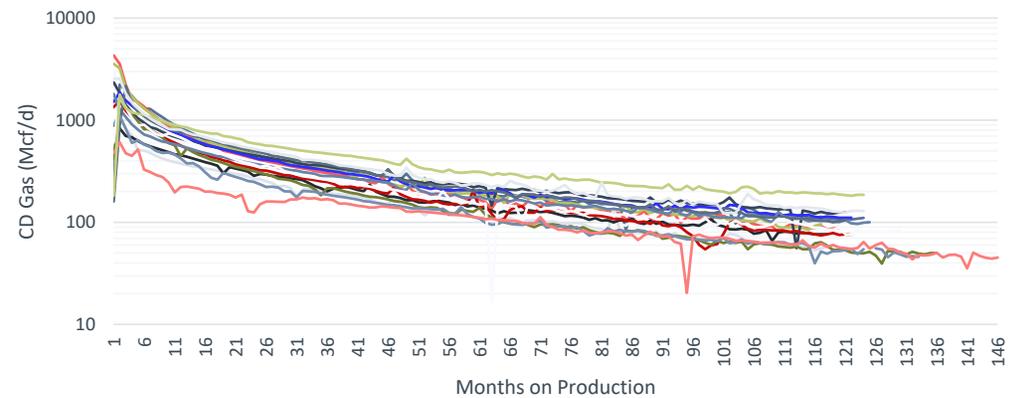
20+ stages

Avg. per well

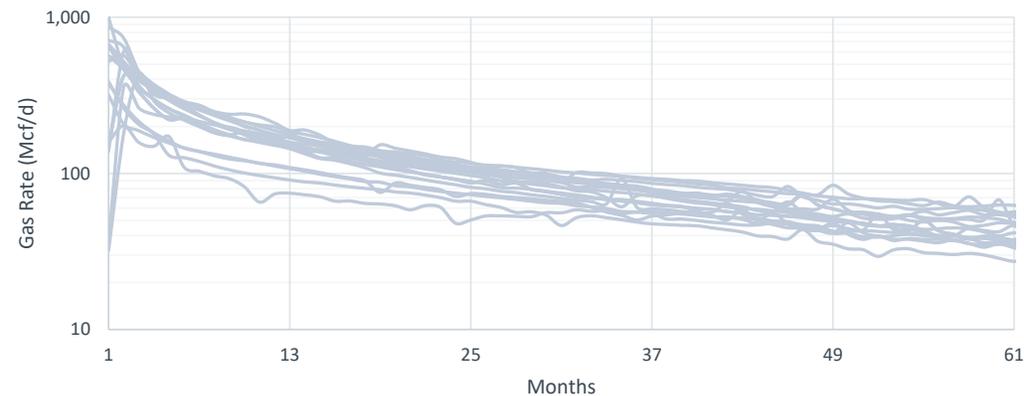
Est IP30 of 6-8 MMcf/d  
Est EUR of 4-5 Bcf

- SOU analysis of Gwinville and Baxterville trends indicate significant upside can be realized with increasing number of stages, proppant loading, and lateral length
- Based on the following workflow and analog data from Baxterville field, a conservative type well has been developed
- Similar Selma Chalk IP rates have been proven recently in the Baxterville field by Tellus (2015)

## Gwinville Horizontal Selma Chalk Historical Production



## Gwinville Horizontal Selma Chalk – Single Stage Frac Basis



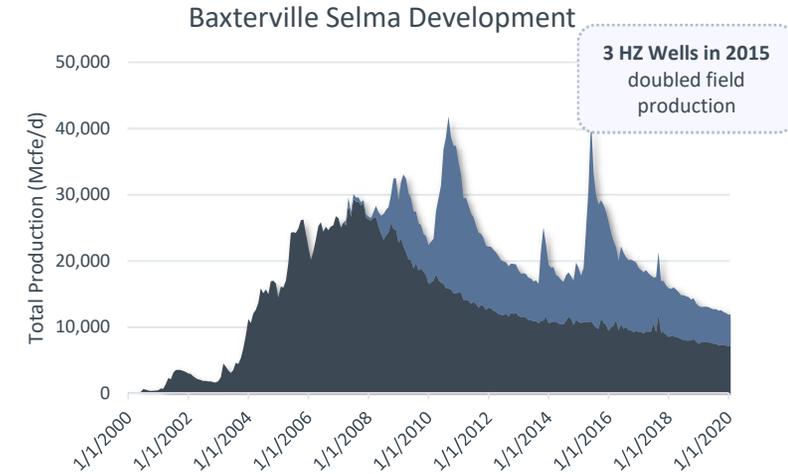
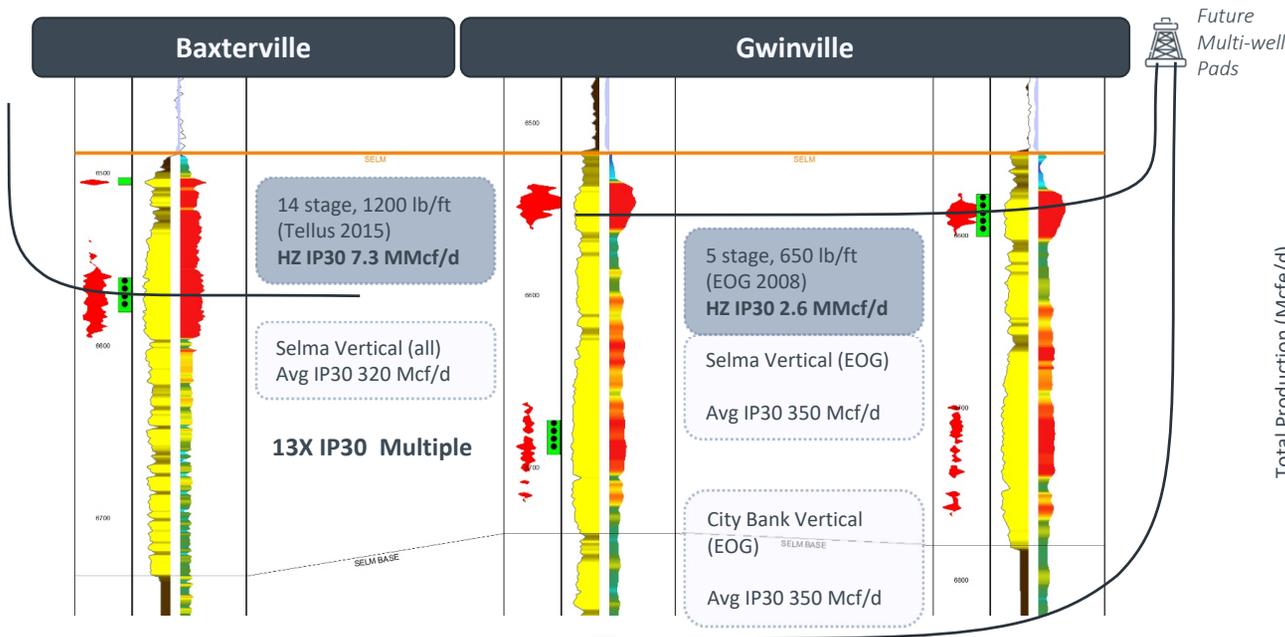
\* Fields analyzed are Gwinville, Baxterville, and Sharon. Number of frac stages is a proxy to proppant loading.

# Analog Selma Chalk Field Success – Baxterville



## Similar Pool Characteristics

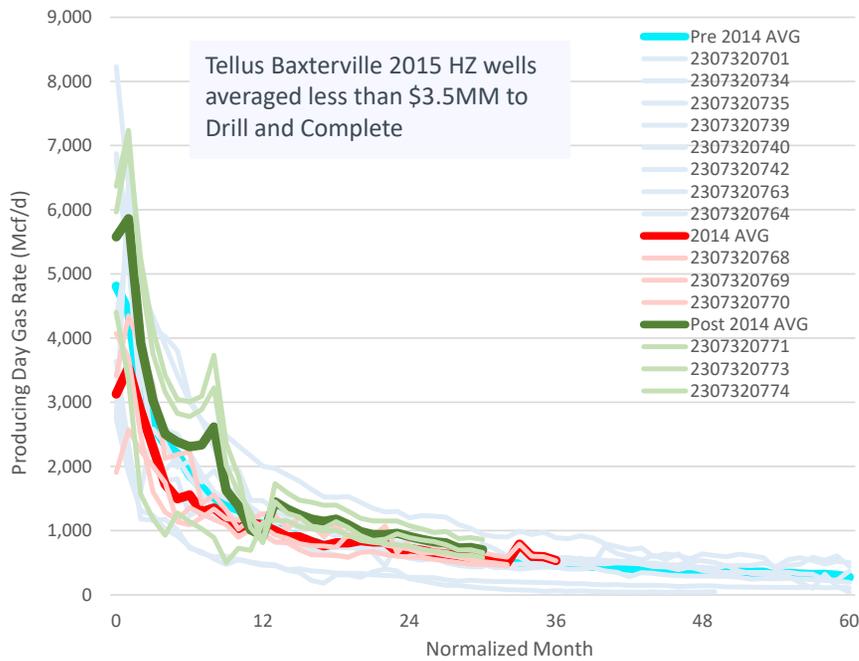
- The Baxterville field has undergone a successful HZ conversion and is a direct analog to the Gwinville Field
  - Recent horizontal wells (Gen-2) in the middle of the pool producing > 7 MMcf/d IP30
  - Southern plans to increase the number of stages and proppant loading to optimize completion design
- Both fields have nearly identical cumulative production, aerial size, pay thickness and reservoir quality
- Gwinville field has two porosity units in the Selma Chalk along with the horizontally tested City Bank formation that add incremental upside



# Baxterville Selma Chalk HZ Timeline

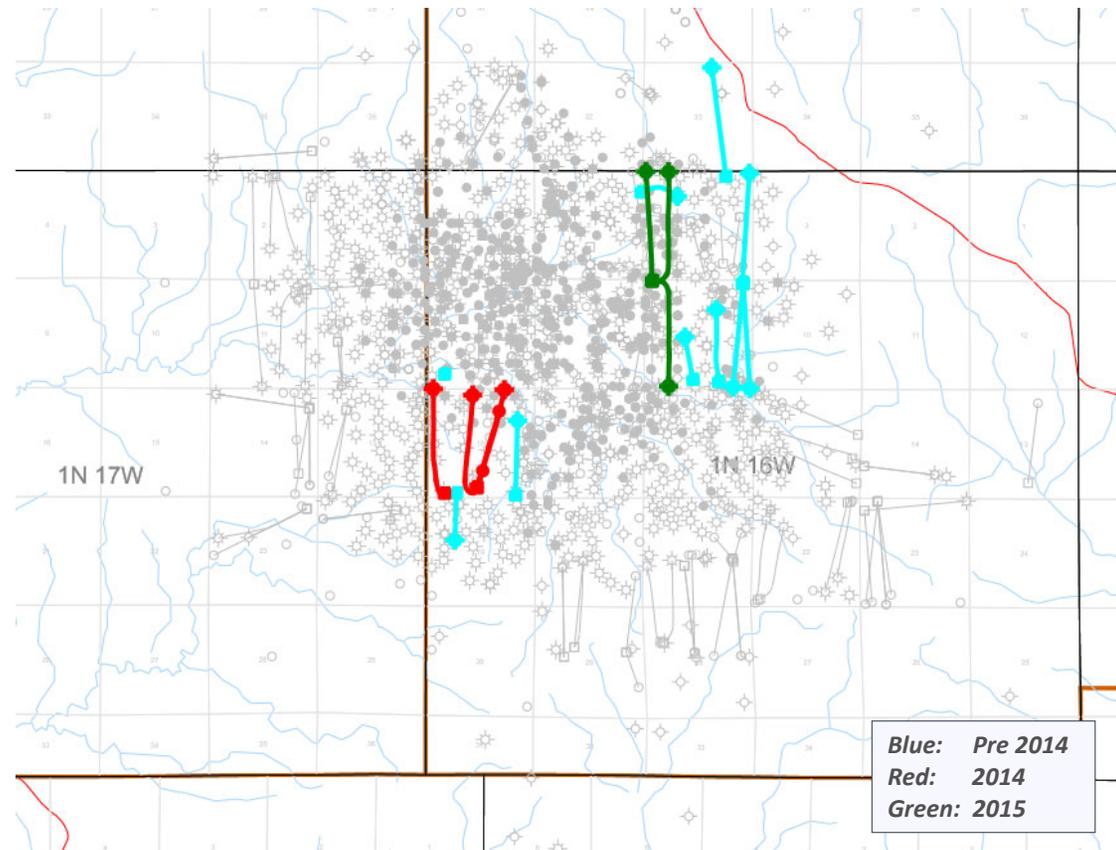


## Typical HZ Completion Advancements



Recent Tellus "Generation 2" wells averaged 12-14 stages and 800-1200 lb/ft

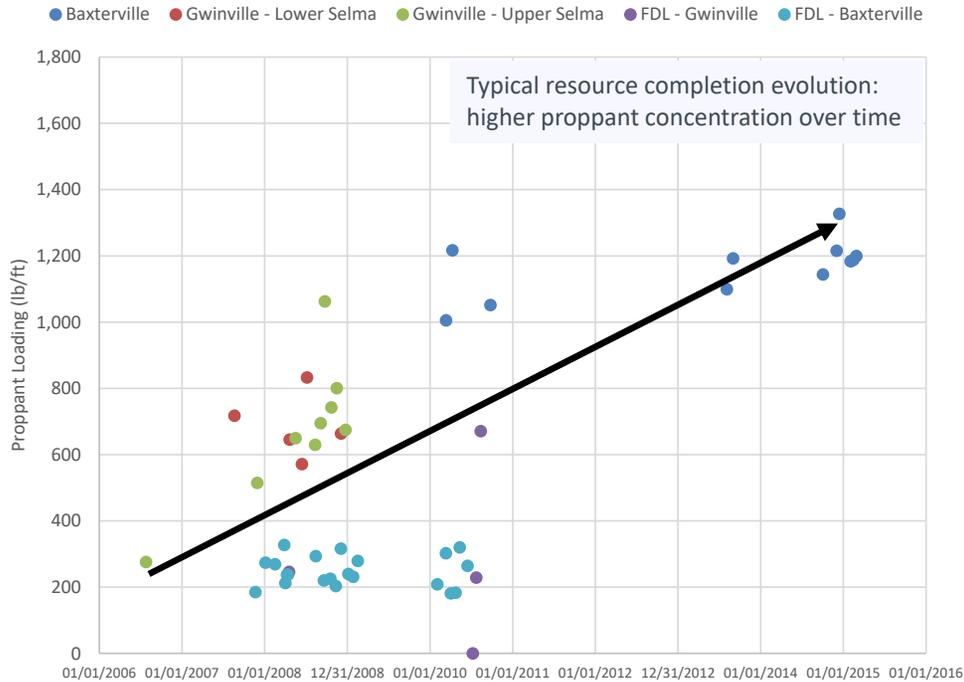
## Tellus Baxterville Completion Evolution



# Early HZ Well Analysis



## Selma HZ Proppant Loading vs Time

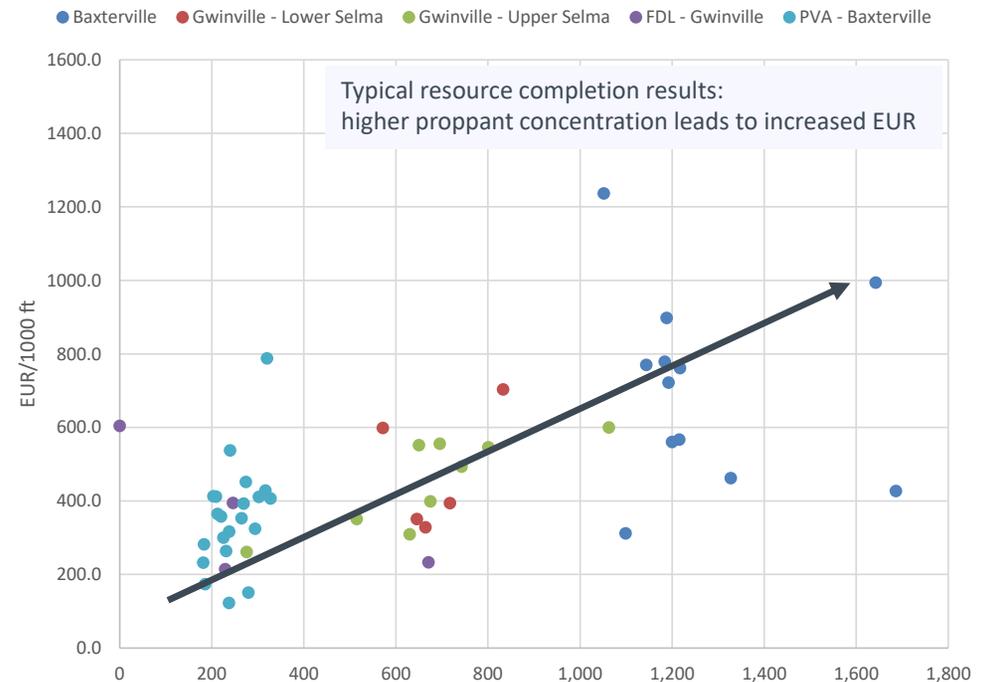


Most recent completions (Tellus - Baxterville) have significantly increased proppant loading

Early designs were short laterals, small number of frac stages

Data excludes laterals <2000' in length

## Selma HZ EUR vs Proppant Loading



Higher proppant loading has led to much higher EUR

Operator specific trends (FDL was Penn-Virginia) – small fracs, stand out

Results show clear path to success

# Hedging Summary



## Hedging Position:

- At October 20, 2021:

### Natural Gas:

Deal Type	Term	Start Date	End Date	Volume (MMBtu/d)	Index	Strike
Swap Option	Cal21	01-Jan-21	31-Dec-21	1,500	NYMEX HH	\$ 2.575
Swap Option	Cal21	01-Jan-21	31-Dec-21	3,600	NYMEX HH	\$ 2.402
Swap Option	Bal21	01-Aug-21	31-Oct-21	1,000	NYMEX HH	\$ 3.940
Costless Collar	Win21	01-Nov-21	31-Dec-21	1,000	NYMEX HH	\$ 3.50 x \$5.10
Costless Collar	Win22	01-Jan-22	31-Mar-22	4,000	NYMEX HH	\$ 3.50 x \$5.10
Swap Option	Bal22	01-Apr-22	31-Dec-22	4,000	NYMEX HH	\$ 3.100

- 2021 average natural gas hedge price of ~ \$2.63/MMBTU using costless collar floor price (~ 49% of current natural gas production base)