



HIGHPEAK
E N E R G Y

Investor Presentation

May 2021

FORWARD-LOOKING STATEMENTS

The information in this presentation and in any oral statements made in connection herewith contains forward-looking statements that involve risks and uncertainties. When used in or in connection with this document, the words “believes,” “plans,” “expects,” “anticipates,” “forecasts,” “intends,” “continue,” “may,” “will,” “could,” “should,” “future,” “potential,” “estimate” or the negative of such terms and similar expressions as they relate to HighPeak Energy, Inc. (“HighPeak Energy” or the “Company”) are intended to identify forward-looking statements, which are generally not historical in nature. The forward-looking statements are based on the Company's current expectations, assumptions, estimates and projections about the Company and the industry in which the Company operates. Although the Company believes that the expectations and assumptions reflected in the forward-looking statements are reasonable as and when made, they involve risks and uncertainties that are difficult to predict and, in many cases, beyond the Company's control.

These risks and uncertainties include, among other things, volatility of commodity prices, product supply and demand, the impact of a widespread outbreak of an illness, such as the coronavirus disease 2019 (“COVID-19”) pandemic, on global and U.S. economic activity, competition, the ability to obtain environmental and other permits and the timing thereof, other government regulation or action, the ability to obtain approvals from third parties and negotiate agreements with third parties on mutually acceptable terms, litigation, the costs and results of drilling and operations, availability of equipment, services, resources and personnel required to perform the Company's drilling and operating activities, access to and availability of transportation, processing, fractionation, refining and storage facilities, HighPeak Energy's ability to replace reserves, implement its business plans or complete its development activities as scheduled, access to and cost of capital, the financial strength of counterparties to any credit facility and derivative contracts entered into by HighPeak Energy, if any, and purchasers of HighPeak Energy's oil, NGL and gas production, uncertainties about estimates of reserves, identification of drilling locations and the ability to add proved reserves in the future, the assumptions underlying forecasts, including forecasts of production, expenses, cash flow from sales of oil and gas and tax rates, quality of technical data, environmental and weather risks, including the possible impacts of climate change, cybersecurity risks and acts of war or terrorism. These and other risks are described in the Company's Form 10-K filed with the Securities and Exchange Commission (the “SEC”) on March 15, 2021 (File No. 333-248898) and in its other filings with the SEC. In addition, the Company may be subject to currently unforeseen risks that may have a materially adverse effect on it. Accordingly, no assurances can be given that the actual events and results will not be materially different than the anticipated results described in the forward-looking statements. Readers are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date hereof. The Company undertakes no duty to publicly update these statements except as required by law.

USE OF NON-GAAP FINANCIAL MEASURES

This presentation includes non-GAAP financial measures, including EBITDAX, operating margin and PV-10. HighPeak believes these non-GAAP measures are useful because they allow HighPeak to more effectively evaluate its operating performance and compare the results of its operations from period to period and against its peers without regard to financing methods, capital structure or tax status. HighPeak does not consider these non-GAAP measures in isolation or as alternatives to similar financial measures determined in accordance with GAAP. HighPeak's computations of these non-GAAP financial measures may not be comparable to other similarly titled measures of other companies.

HighPeak defines EBITDAX as net income before interest expense, income taxes, depreciation, depletion and amortization, exploration and other expenses, impairment and abandonment expenses, non-cash gains or losses on derivatives, stock-based compensation, gain on exchange of debt, gains and losses from the sale of assets, transaction costs and nonrecurring workforce reduction severance payments. HighPeak's management believes EBITDAX is useful as it allows them to more effectively evaluate HighPeak's operating performance and compare the results of its operations from period to period and against its peers without regard to financing methods or capital structure. HighPeak excludes the items listed above from net income in arriving at EBITDAX because these amounts can vary substantially from company to company within the industry depending upon accounting methods and book values of assets, capital structures and the method by which the assets were acquired. HighPeak defines operating margin as realized price less lease operating expenses, gathering, processing and transportation expenses, production taxes and interest, on a per-Boe basis. HighPeak defines PV-10 as the present value of estimated future net revenues to be generated from the production of proved reserves, without giving effect to non-property related expenses, discounted at 10% per year before income taxes. For reconciliations of each such non-GAAP measure as presented herein to its most comparable measure prepared in accordance with GAAP, see the Appendix to this presentation.

RESERVE INFORMATION

Reserve engineering is a process of estimating underground accumulations of hydrocarbons that cannot be measured in an exact way. The accuracy of any reserve estimate depends on the quality of available data, the interpretation of such data and price and cost assumptions made by reserve engineers. Reserves estimates included herein may not be indicative of the level of reserves or PV-10 value of oil and natural gas production in the future, as they are based on prices significantly higher than current commodity prices. In addition, the results of drilling, testing and production activities may justify revisions of estimates that were made previously. If significant, such revisions could impact HighPeak's strategy and change the schedule of any further production and development drilling. Accordingly, reserve estimates may differ significantly from the quantities of oil and natural gas that are ultimately recovered.

Unless otherwise indicated, reserve estimates shown herein are based on a reserve report as of December 31, 2020 prepared by Cawley, Gillespie & Associates, Inc., the Company's independent reserve engineering firm, and were prepared in accordance with current SEC rules and regulations regarding reserve reporting, except that commodity prices were based on specified management parameters, referred to herein as "flat" pricing, rather than SEC pricing guidelines. The flat prices used in preparing the reserve report were \$63.00 per Bbl of oil and \$3.00 per MMBtu of natural gas, as compared to weighted average adjusted realized prices of \$39.57 per Bbl for oil and \$1.985 per MMBtu that would have been used if the reserve report had been prepared using SEC pricing guidelines. HighPeak believes that the use of flat pricing provides useful information about its reserves, as the flat prices reflect what management believes to be reasonable assumptions as to future commodity prices over the productive lives of its properties. However, HighPeak cautions you that the flat pricing used in preparing the reserve report is not necessarily a projection of future oil and natural gas prices, and should be carefully considered in addition to, and not as a substitute for, SEC prices, when considering HighPeak's oil, natural gas and NGL reserves.

Estimated Ultimate Recoveries, or "EURs," refers to estimates of the sum of total gross remaining proved reserves per well as of a given date and cumulative production prior to such given date for developed wells. Original oil in place, or "OOIP" refers to gross volumes of hydrocarbons without giving effect to recovery efficiency or the economic viability of production. Neither EURs nor OOIP constitute or represent reserves as defined by the SEC and neither is intended to be representative of anticipated future well results or aggregate production volumes. Each such metric is inherently more uncertain than proved reserve estimates prepared in accordance with SEC guidelines.

INDUSTRY AND MARKET DATA

This presentation has been prepared by HighPeak and includes market data and other statistical information from sources believed by HighPeak to be reliable, including independent industry publications, governmental publications or other published independent sources. Some data is also based on HighPeak's good faith estimates, which are derived from its review of internal sources as well as the independent sources described above. Although HighPeak believes these sources are reliable, they have not independently verified the information and cannot guarantee its accuracy and completeness.

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Key Statistics

- **Production** Current production of approximately 8.3 MBoe/d ⁽¹⁾ at ~90% oil cut
 - Q1/21 production of 5.3 MBoe/d an increase of 59% from Q4/20
- **Acres** ~33,000 and ~18,000 net acres in Flat Top and Signal Peak areas located in the core of the Northern Midland Basin, respectively
 - ~95% operated with average operated WI / GNRI of ~84% and 75%
- **Well count** 39 operated horizontal wells completed or in progress at May 17; 31 operated legacy vertical wells

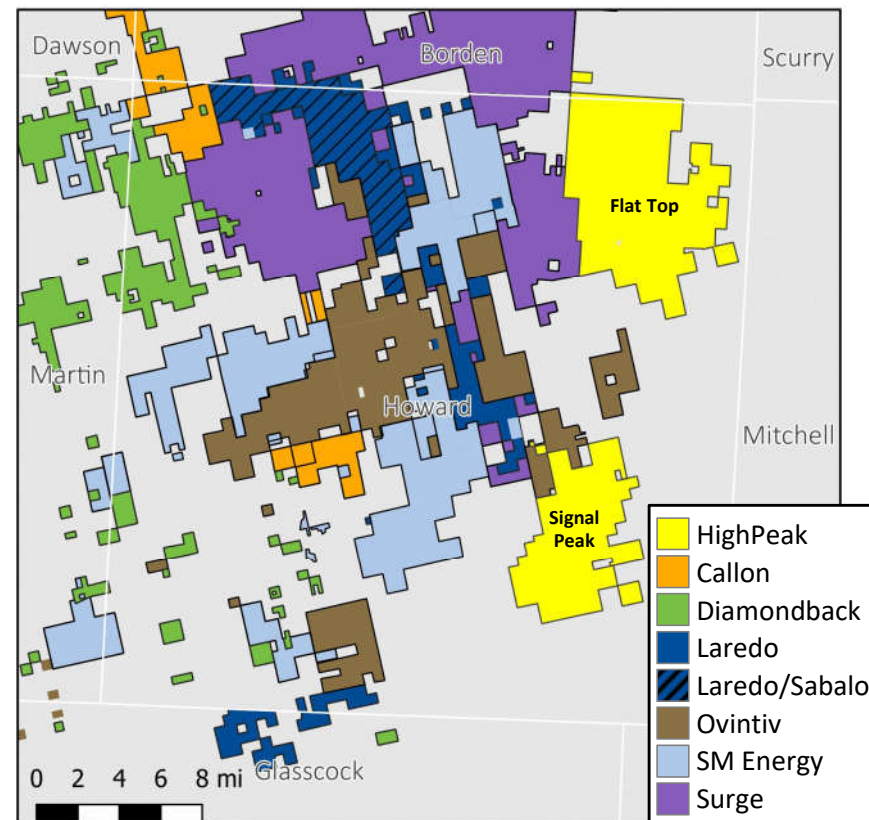
Focus on Production Growth and Operating Margins

- Significant production growth expected to continue as new wells come online; current production up 150% to approximately 8.3 MBoe/d from 3.3 MBoe/d in 4Q20 ⁽¹⁾
- Industry-leading all-in-cost and full cycle economics with expected 2021E EBITDA margins of \$41–\$46/Boe ⁽²⁾
 - Q1/2021 EBITDA margin of \$42.14/Boe

Differentiated Financial Strategy

- No debt outstanding and ~\$10 million in cash on the balance sheet as of 3/31/21
- Commitment to low leverage
- Hedged 2,500 Bbl/d (May/21 – Apr/22) of oil at \$61.40/Bbl (WTI)
 - Actively monitoring markets for additional hedges

Acres Position and Selected Offset Operators



HighPeak Energy Market Snapshot

NASDAQ Symbol:	HPK
Business Combination ("IPO") Date:	August 21, 2020
Shares Outstanding:	92.68 million
Market Cap ⁽³⁾ :	\$925 million
Debt:	\$0 million

Source: Acreage per Enverus.

(1) Current production represents average daily production as of mid-May 2021.

(2) Based on flat pricing of \$63.00/Bbl and \$3.00/MMBtu as adjusted for differentials under a one-rig program

(3) Based on closing share price on May 3, 2021



Q1 Highlights:

- ✓ Generated EBITDAX⁽¹⁾ of \$20.1 million
- ✓ Average production of 5,290 Boe/d
- ✓ Zero debt and \$9.6 million cash on hand
- ✓ First phase of Company-owned water system fully operational



2021 Guidance:

- ✓ 1 Rig Program
- ✓ 2021 Average Net Production of 10.5 to 12.0 MBoe/d
- ✓ Total Capital Expenditures of \$135 - \$150 million
- ✓ 2021 Exit Net Production of 12.0 to 14.0 MBoe/d



2021 Priorities:

- ✓ Achieve significant production and reserves growth while maintaining a conservative balance sheet
- ✓ Focus on low-cost operations and peer-leading capital efficiency
- ✓ Sustain leading EBITDAX margins driven by high oil cuts and a low-cost structure
- ✓ Continued implementation of ESG program

(1) EBITDAX is a non-GAAP financial measure. See Appendix .

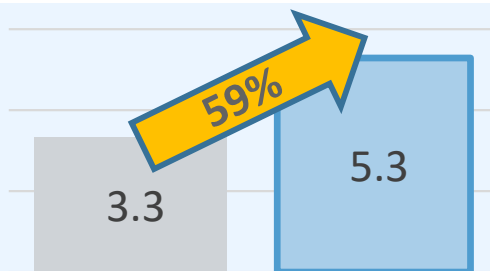
Delivering Capital Efficient Oil Weighted Growth



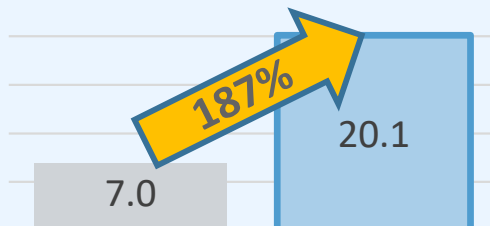
Q4 2020

Q1 2021

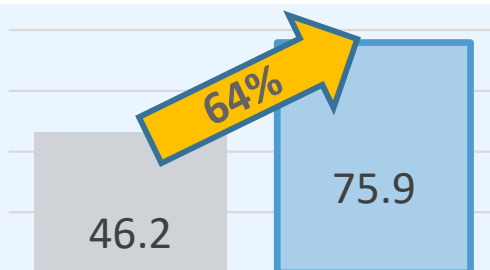
Production
(Net MBoe/d)



EBITDAX
(\$ millions)



Lateral Feet Drilled
(000 ft)



Total Debt

\$0



Oil Mix

~90%

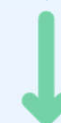


First Quarter Key Metrics⁽¹⁾



Production and Pricing	
Total production (MBoe)	476.1
Total production (MBoe/d)	5.3
Oil percentage	90%
Liquids percentage	95%
Realized Pricing	
Oil per Bbl	\$58.36
NGL per Bbl	\$27.82
Gas per Mcf	\$2.23
Total per Boe	\$54.01
Costs (per Boe)	
LOE (including transportation)	\$4.68
Production & Ad Valorem taxes	\$3.50
G&A (Cash)	\$3.69
Total Cash Costs	\$11.87
Cash Margin	\$42.14
Earnings	
Net Income (\$MM)	\$4.74
GAAP Earnings (per share)	\$0.05
EBITDAX (\$MM)	\$20.07
EBITDAX (per share)	\$0.21
Other	
Q1 Capex (\$MM)	\$45.2
Cash balance (\$MM)	\$9.6
D,C,E&F cost (per lateral foot)	~\$505
Lateral Feet Drilled ('000s)	75.9

QoQ LOE/Boe



28%

QoQ Cash G&A/Boe



42%

QoQ Cash Margin/Boe

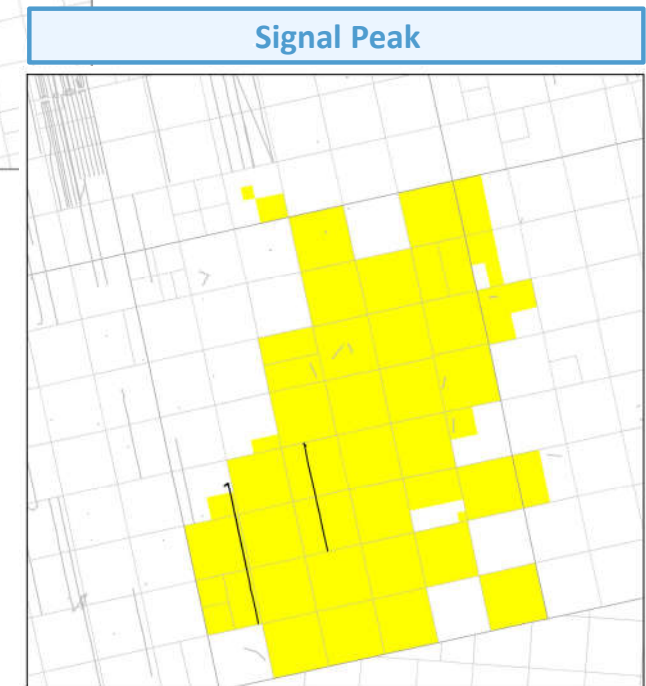
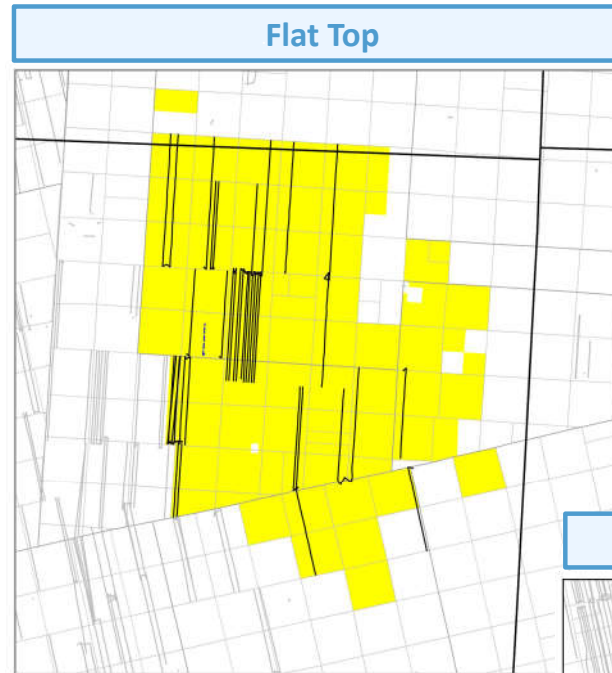


44%

Overview

■ Statistics

- Well lengths ranging from ~8,500 to over 15,000'
- Phase 1 produced water system fully operational
- Basin's first high volume horizontal Ellenburger SWD
- Signal Peak WC-C & WC-D wells currently on flowback



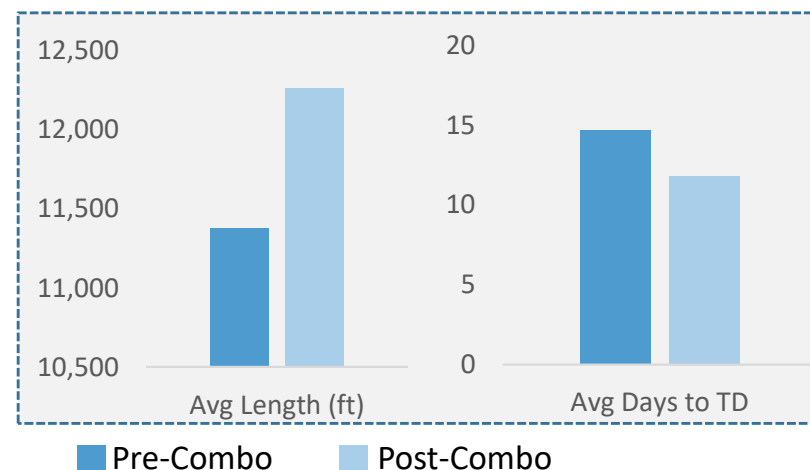
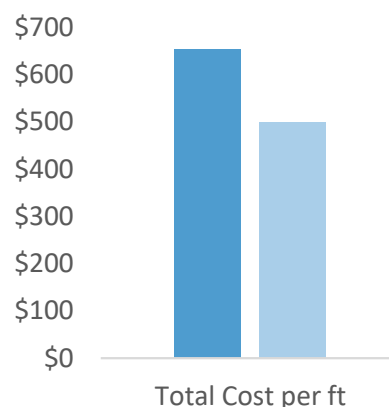
	FLAT TOP	SIGNAL PEAK
Acreage	~33,000	~18,000
Total Wells ⁽²⁾	37	3
Completing	4	2
Drilling	2	-
Avg Lateral Length	~11,900'	~10,200'

(1) As of May 14, 2021
 (2) Includes one non-op well.

Capital Efficiency

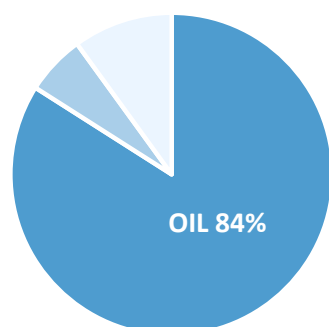
- Continuous capital improvement
 - Pad development
 - Longer laterals
 - Service company relationships
 - Ongoing operational improvements
 - D&C Post-Combination⁽⁴⁾ average is ~\$400/ft

Capital Efficiency Through 31 Wells Drilled⁽¹⁾



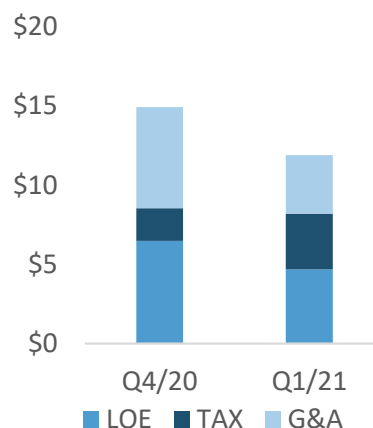
High Oil Cut⁽³⁾

HPK Boe is different!

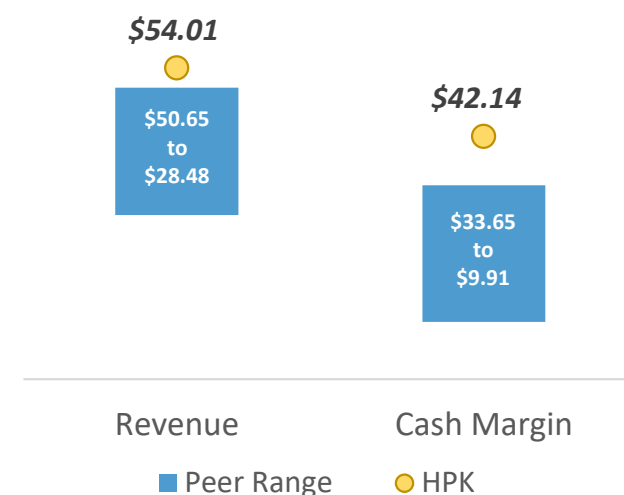


*Current oil cut of 90%
Life of well ~84%*

Cost Improvement



1Q 2021 Cash Margin (\$/Boe)⁽²⁾



(1) Total cost per foot includes Drilling, Completion, Equipping and Facilities
 (2) PEER-Avg includes CDEV, CPE, ESTE, FANG, LPI, MTDR, PXD, REI and SM. Cash margin defined as unhedged realized price less LOE, less GP&T, less cash G&A, and less production taxes (\$/Boe).
 (3) Represents full-life oil cut based on YE2020 reserve report. Q1/21 sales volumes were ~90% oil and ~95% liquids.
 (4) "Combination" reflects the business combination ("IPO") of HighPeak Energy, Inc. on Aug. 21, 2020.

Low Cost, High Oil Cut Generates Premium Returns

Wolfcamp A 10,000' well economics ⁽¹⁾

Single well sensitivities	Single well IRR%			
	DCE&F Costs (\$MM)			
		\$4.8	\$5.3	\$5.8
	\$35/bbl	46%	35%	27%
	\$50/bbl	131%	101%	82%
	\$65/bbl	251%	199%	164%
	Payback period (yrs)			
	DCE&F Costs (\$MM)			
		\$4.8	\$5.3	\$5.8
	\$35/bbl	1.8	2.2	2.6
	\$50/bbl	0.9	1.0	1.1
	\$65/bbl	0.7	0.7	0.8

Lower Spraberry 10,000' well economics ⁽¹⁾

Single well sensitivities	Single well IRR%			
	DCE&F Costs (\$MM)			
		\$4.8	\$5.3	\$5.8
	\$35/bbl	22%	16%	12%
	\$50/bbl	73%	59%	46%
	\$65/bbl	151%	123%	98%
	Payback period (yrs)			
	DCE&F Costs (\$MM)			
		\$4.8	\$5.3	\$5.8
	\$35/bbl	3.1	3.9	4.9
	\$50/bbl	1.3	1.6	1.8
	\$65/bbl	0.8	0.9	1.0

HighPeak planned average lateral length of 12,500' improves single-well IRRs to 231% (WCA) and 144% (LSBY) with NPV10 of \$14.3mm (WCA) and \$11.0mm (LSBY) ⁽²⁾

Note: YE20 CGA Wolfcamp A PUD type curve (10,000' LL) utilizes peak oil rate of 825 Bo/d (month 4), $b = 1.05$, $D_i = 68\%$, and $d_{min} = 6\%$.
 YE20 CGA Lower Spraberry PUD type curve (10,000' LL) utilizes peak oil rate of 775 Bo/d (month 3), $b = 1.02$, $D_i = 70.5\%$, and $d_{min} = 6\%$.
 (1) Assumes \$3.00/MMBtu (gas) in all cases. Payback period calculated from first production.
 (2) Returns assumed \$65/bbl and current total well capex of \$505/ft.

Crude Oil Gathering and Takeaway



- Q1 revenue = 97% oil
- Executed long-term marketing and gathering contract for Flat Top crude oil
 - Attractive all-in rates
 - Gatherer required to install gathering system
 - Barrel buyback option provides flexibility to access highest value markets

Natural Gas Gathering and Processing



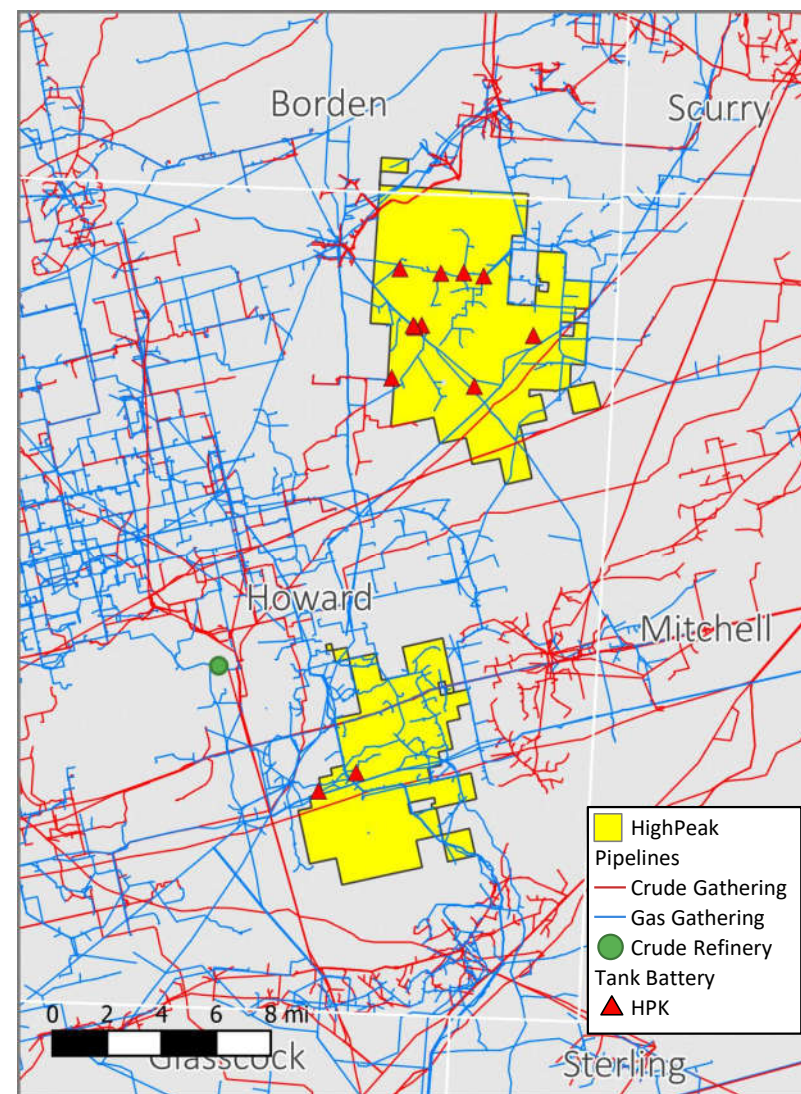
- Executed contract to expand the low-pressure gas gathering system at Flat Top
 - Eliminates need for in-field compression
 - Reduces downtime and flaring
- Extensive gas infrastructure connecting gathering system to multiple processing plants

Saltwater Disposal and Infrastructure



- Phase 1 of company-owned and operated water system in Flat Top area is fully operational
 - Cost efficient water disposal
 - Produced water recycling
- Phase 2 currently under construction

Infrastructure Map



Higher Realized Prices and Lower Operating Costs

Environmental



Removed ~11,500 truckloads⁽¹⁾ during Q1 2021



Beginning eco-friendly electrification



Expanding gas gathering system to reduce flaring

Social



Workforce is 30% Women



Zero safety incidents to date



Flexible work environment/
Active community member

Governance



Established ESG Committee



2 of 7 Board members are diverse



Majority of Board is independent despite controlled company status



Responsible Growth — Efficient production growth of over 150%⁽¹⁾



Strong Balance Sheet — No debt, undrawn revolver



Operational Success — Focus on capital and operational efficiency



Attractive Product Mix — ~90% oil cut drives high margins



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APPENDIX



NON-GAAP RECONCILIATIONS

Reconciliation of Net Income/Loss to EBITDAX



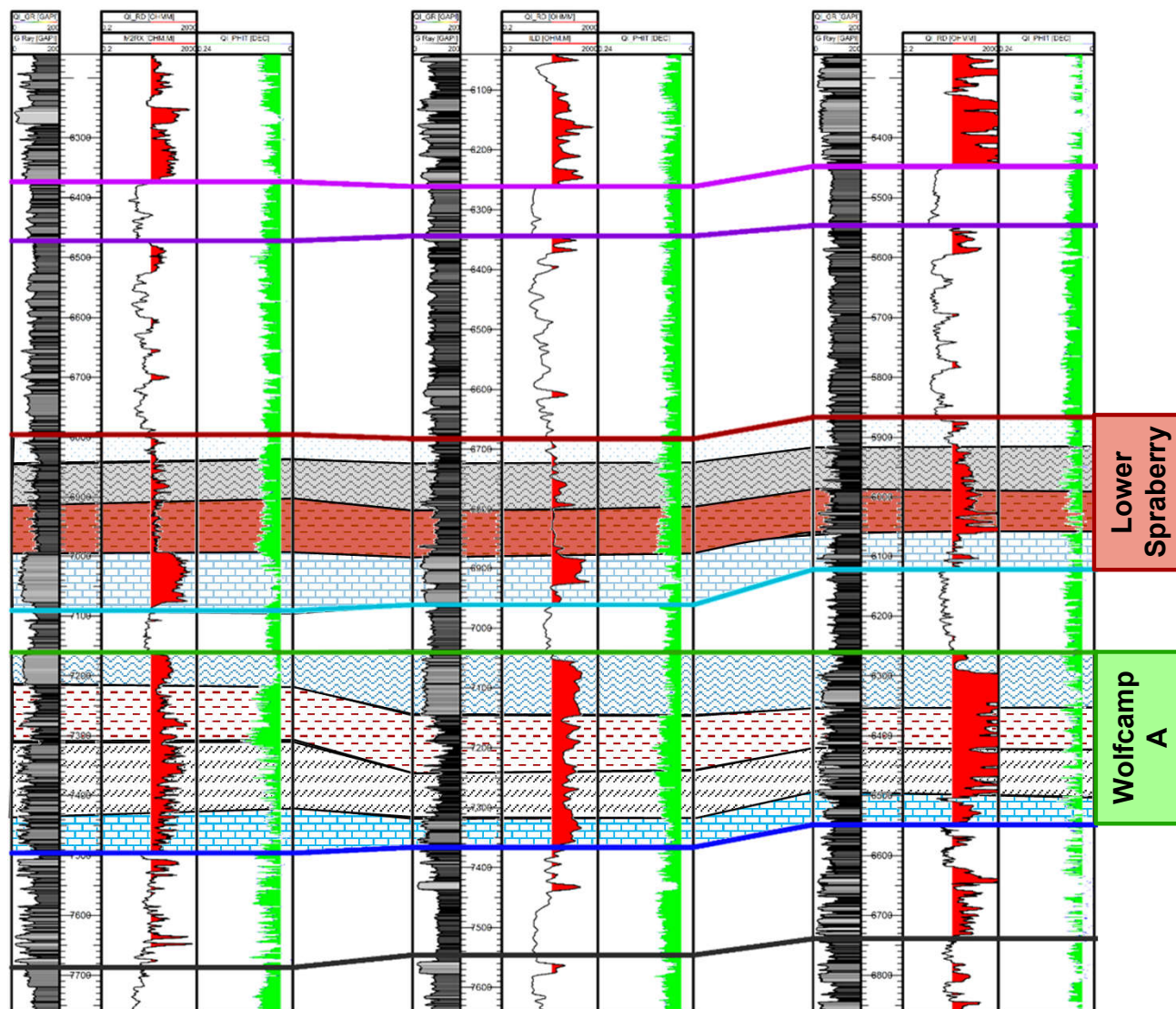
(in thousands)	Three Months Ended	
	31-Mar-21	31-Dec-20
Net income (loss) attributable to common stockholders	\$ 4,744	\$ (4,913)
Income tax expense (benefit)	1,115	(1,914)
Depletion, depreciation and amortization	12,963	7,550
Stock based compensation	966	1,268
Exploration and abandonment expense	191	4,966
Accretion on asset retirement obligation	35	36
Interest income	(1)	(5)
Interest expense	54	8
EBITDAX	\$ 20,067	\$ 6,996

RESERVOIR QUALITY SIMILAR ACROSS HOWARD COUNTY



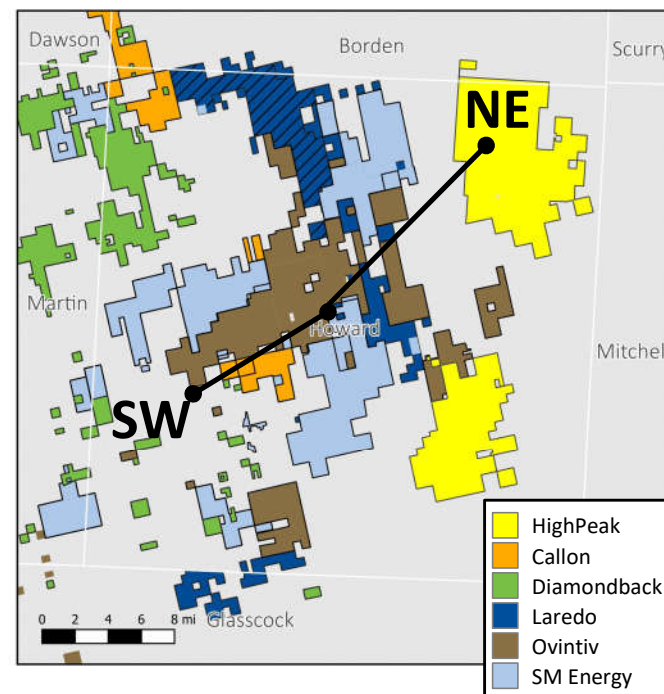
SW

NE



Key Reservoirs Comparison Across Howard County

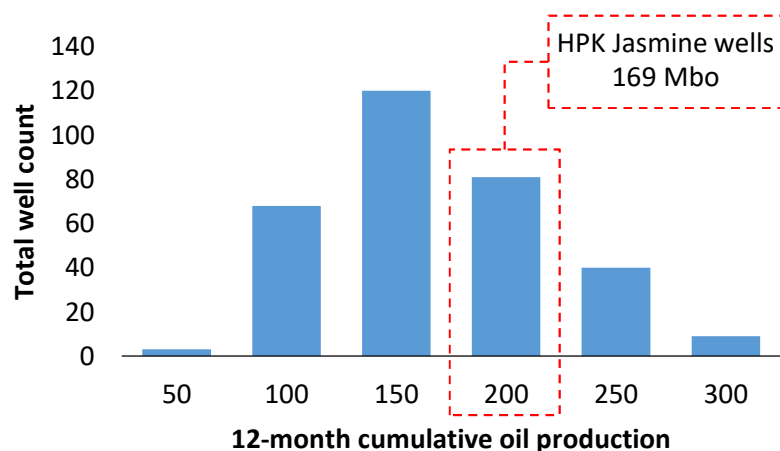
	Lower Spraberry		Wolfcamp A	
	West Howard	East Howard	West Howard	East Howard
Porosity	4.3%	4.7%	4.3%	4.3%
Net to gross	89%	91%	82%	89%
Wells/section	8	6	10	6



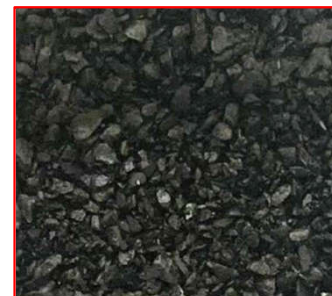
OIL-RICH MIXED LITHOLOGY ROCK COLUMN

- Spraberry and Wolfcamp sections comprised of mixed-lithology, kerogen-rich reservoirs
- Interbedded limestones are consistently kerogen-rich, high-porosity reservoir intervals
- All rock types are hydrocarbon-bearing and contribute to production
- Jasmine Unit wells targeted this upper section of the Wolfcamp A
- Target reservoirs are mature into the oil window with Tmax values from 435–450 degrees

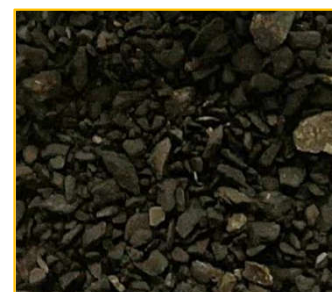
East Howard Production Comparison¹



Organic-rich shale facies



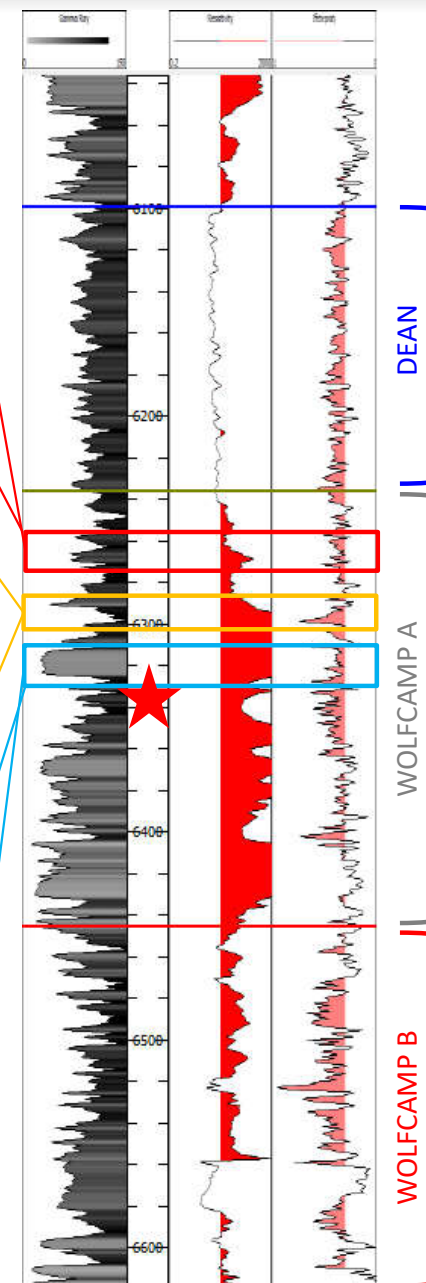
Organic-rich mixed shale-lime facies



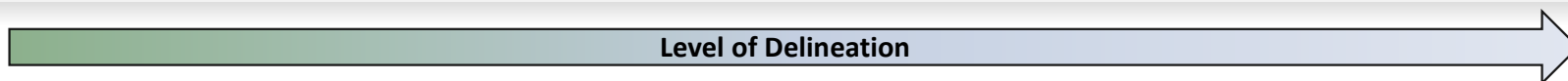
Kerogen-rich porous limestone facies



Denotes Jasmine well landing zone



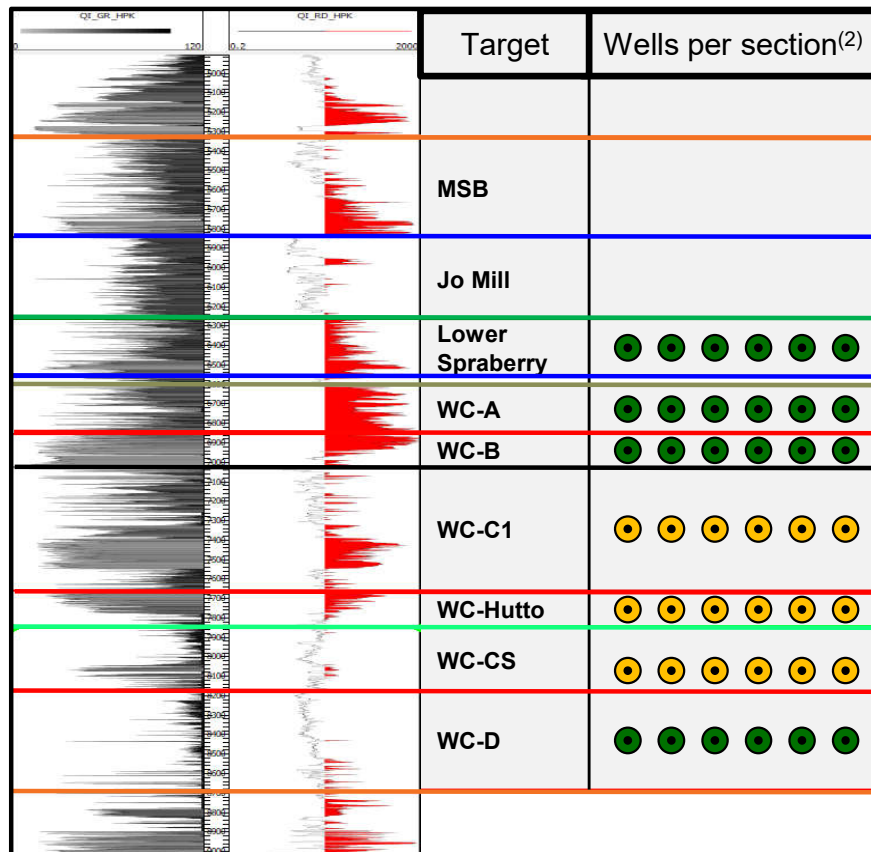
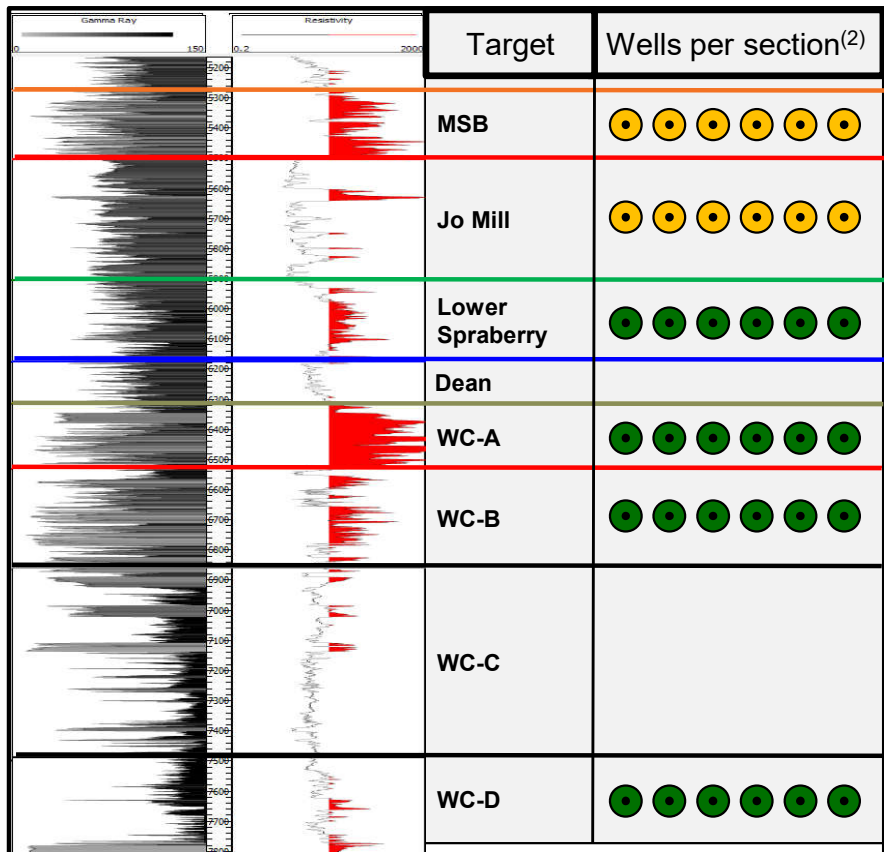
OVER A DECADE OF INVENTORY³



Target	Wolfcamp A	Lower Spraberry	Wolfcamp B	Wolfcamp D	Jo Mill	Middle Spraberry	Wolfcamp C
Flat Top Operated Locations	156	165	173	173	172	172	0
Signal Peak Operated Locations	114	114	114	114	0	0	228 ⁽¹⁾

Flat Top Development Design

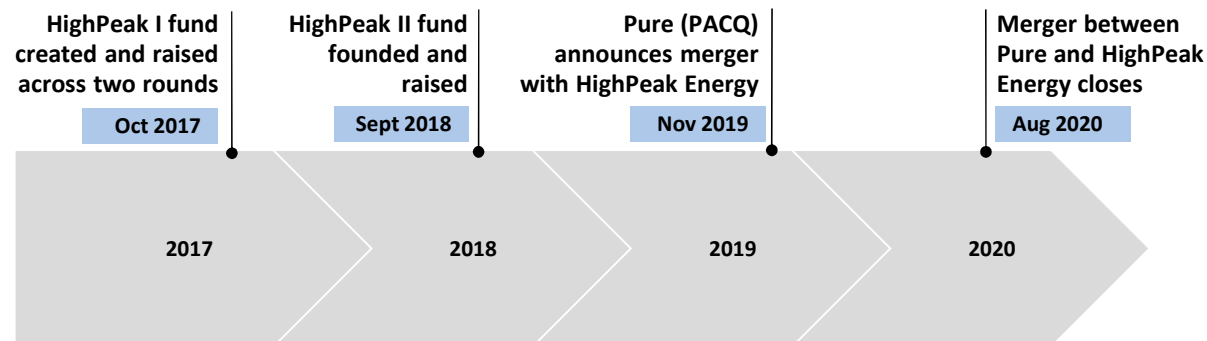
Signal Peak Development Design



- (1) Locations include Hutto and Wolfcamp C shale.
- (2) Assumes 1-mile wide and 2-mile long drilling units.
- (3) As of Dec. 31, 2020



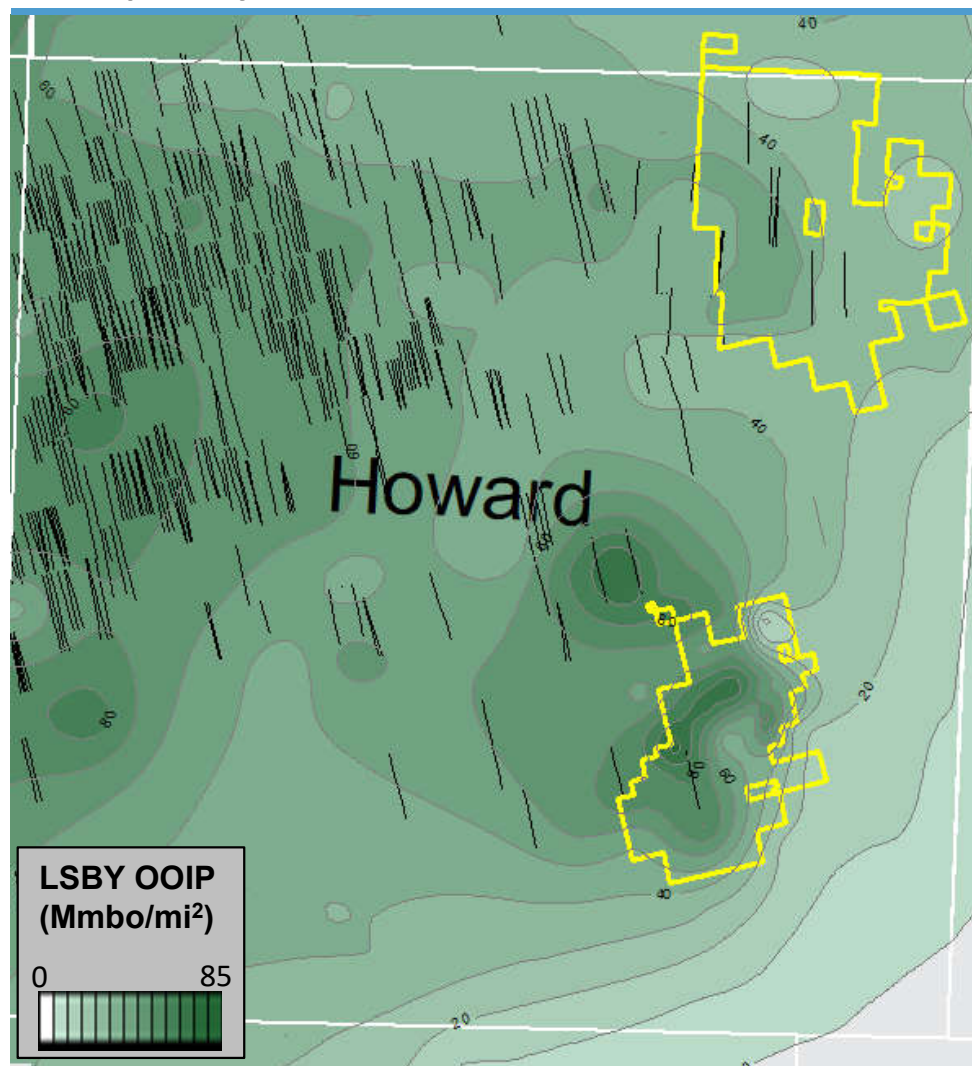
- Starting in 2017, HighPeak acreage was assembled through HighPeak I fund and HighPeak II fund investments over a period of ~3 years
 - Capital was contributed by management and investors to acquire HighPeak’s current Eastern Howard county position in the Midland Basin
- Pure Acquisition Corp. (“Pure”) SPAC IPO’d in April 2018 and was founded by Jack Hightower; Pure evaluated numerous business combinations and found HighPeak’s assets to be the most competitive
- Pure De-SPAC transacted to take public the HighPeak assets in August 2020 with further concurrent investment from management
- Today’s public float consists of a diverse group of original SPAC investors, institutional investors and other high-net-worth investors
 - Management and beneficially controlled entities own ~90% of shares outstanding ⁽¹⁾



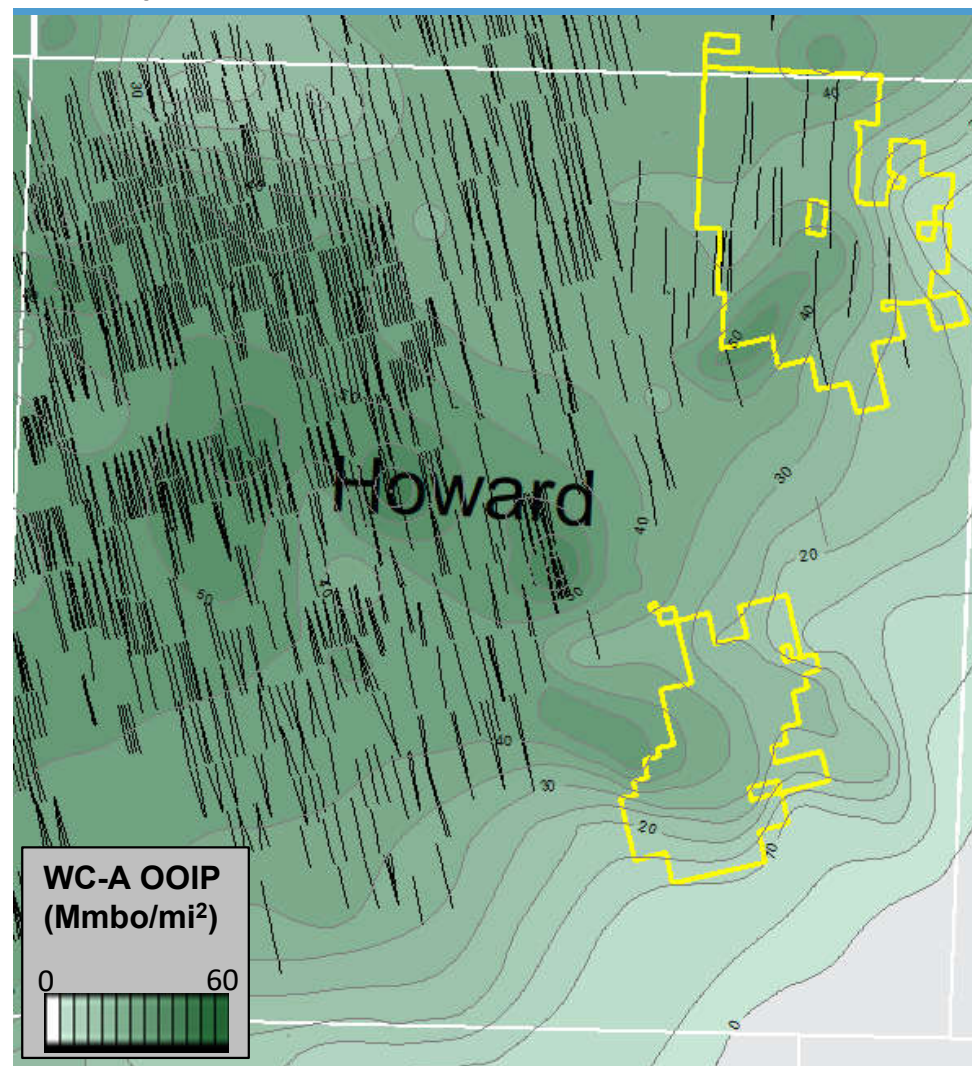
(1) As disclosed in 10-K filed 3/15/21.

Primary reservoirs have comparable rock quality on HighPeak acreage compared to Western Howard

Lower Spraberry OOIP

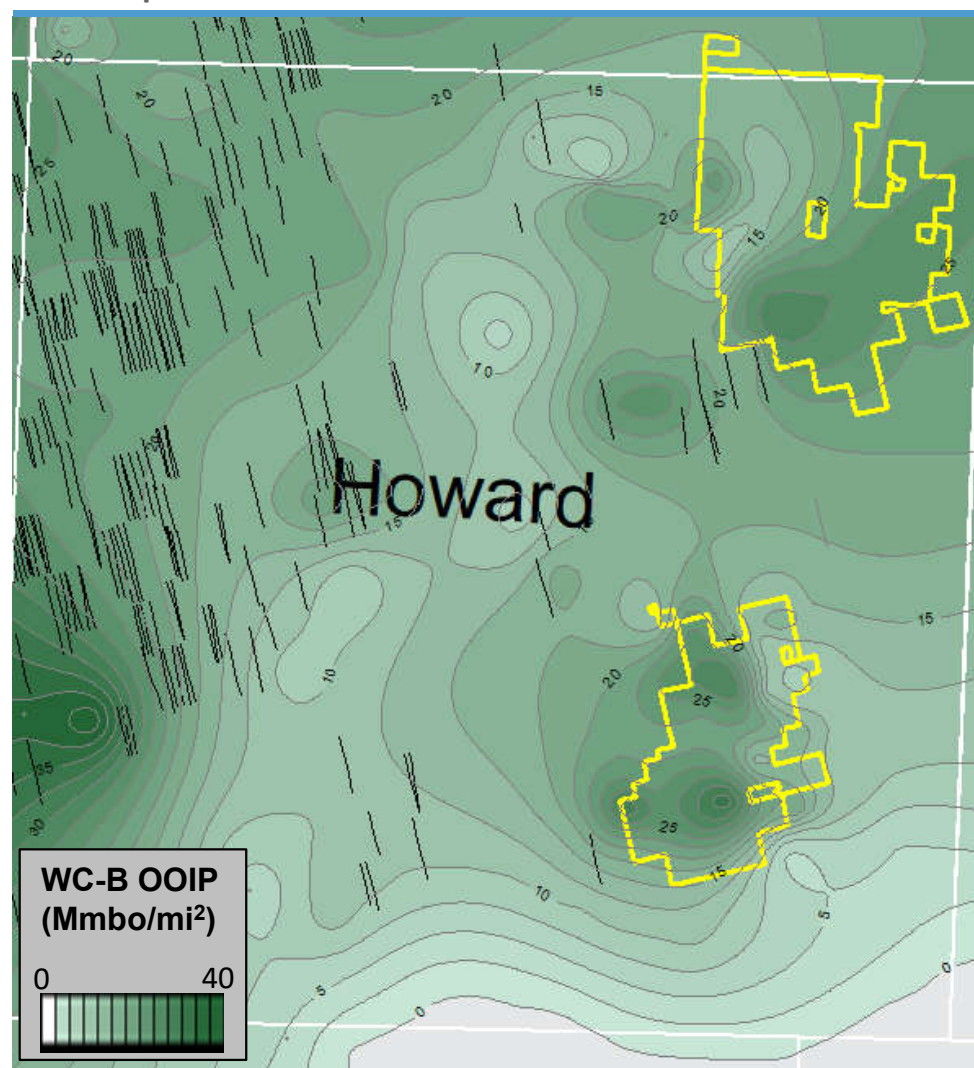


Wolfcamp A OOIP

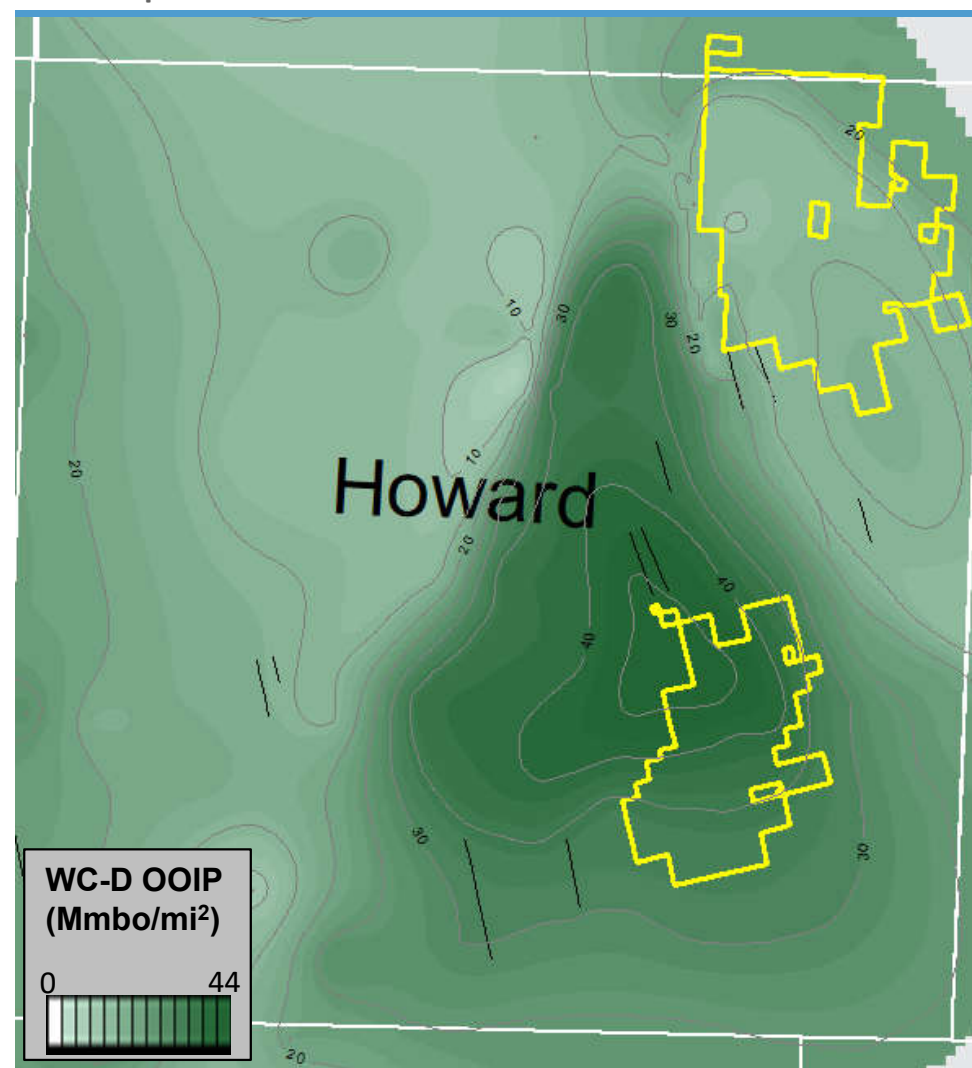


Wolfcamp D shale on HighPeak's Signal Peak acreage has the highest OOIP in Howard County

Wolfcamp B OOIP



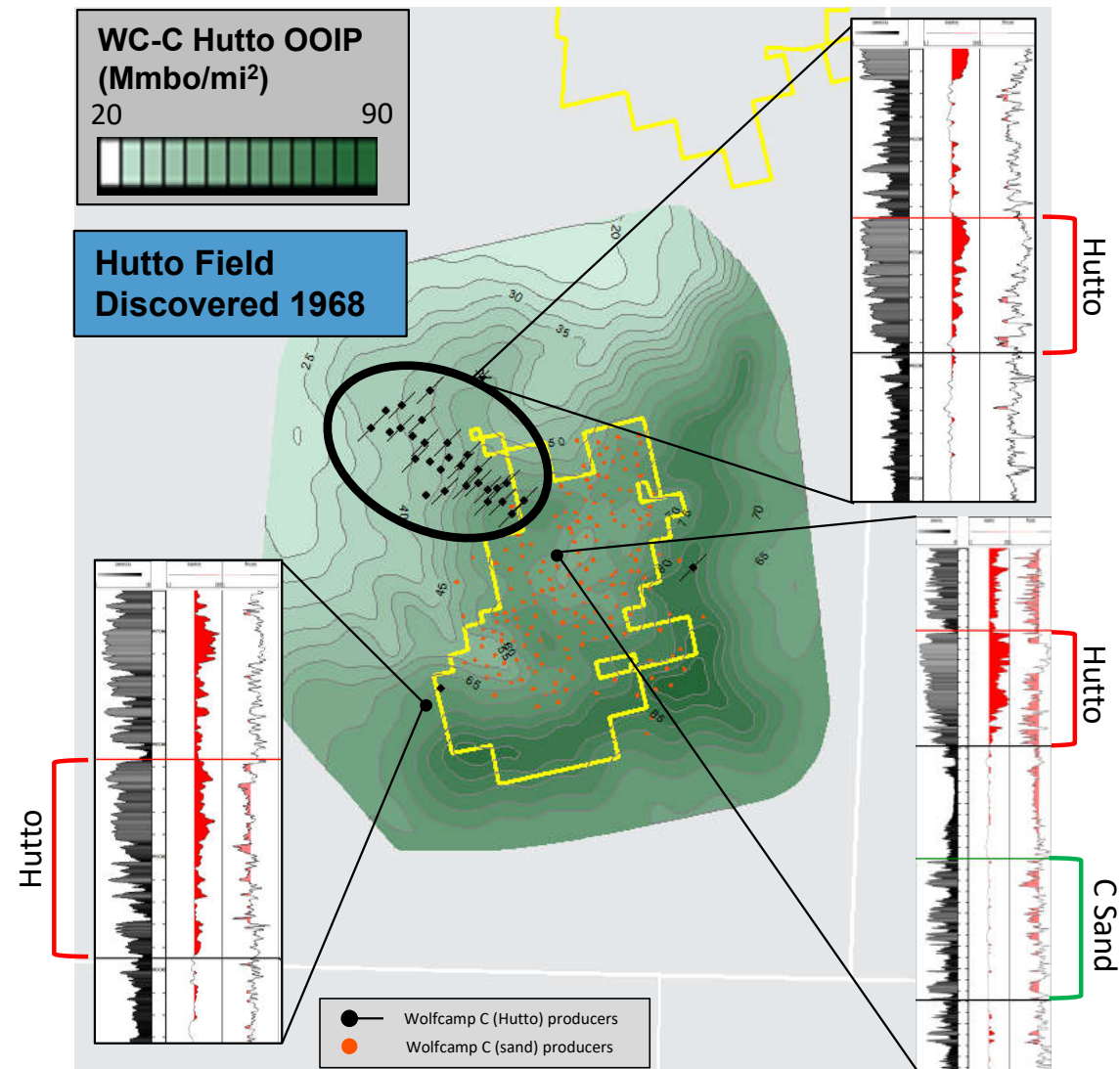
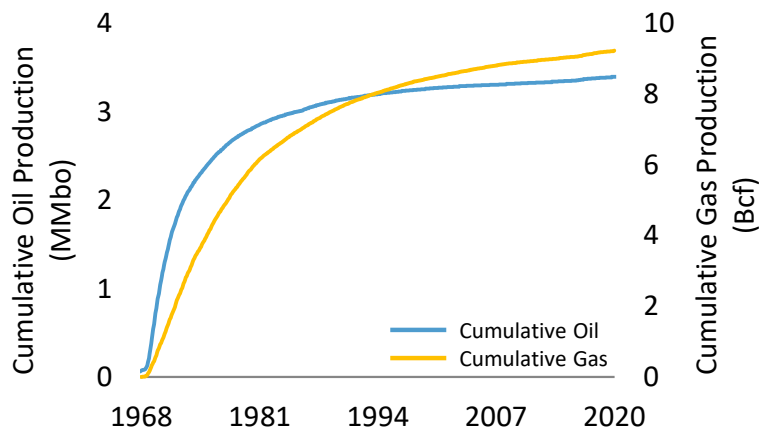
Wolfcamp D OOIP



SIGNAL PEAK OFFSETS PROLIFIC WOLFCAMP C HUTTO FIELD⁽¹⁾

- The Wolfcamp C Hutto reservoir has produced >4.5 million barrels of oil equivalent from vertical wells
- The lower target interval exhibits consistently high porosity throughout the Signal Peak acreage position
- 2021 horizontal well will establish productivity in this prolific interval away from current field extents - First well currently on flowback
- Over 114 Wolfcamp C Hutto potential well locations

Wolfcamp C Hutto Vertical Production



The Wolfcamp C sand, which underlies the Hutto, has produced over 15 million barrels of oil equivalent from 182 wells at Signal Peak



HIGHPEAK
E N E R G Y

The End