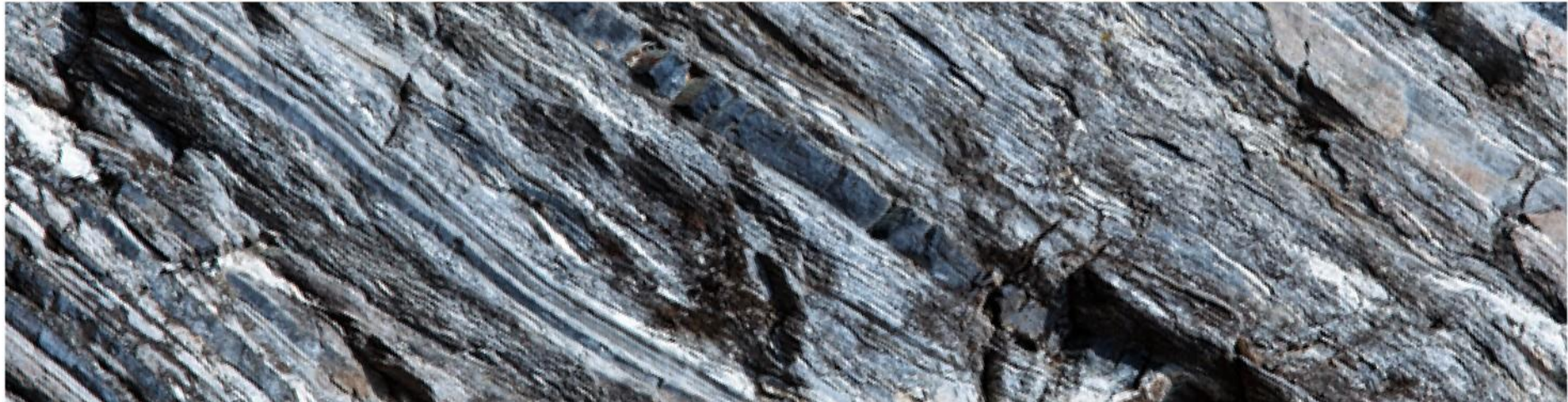




OPTIMIZING HORIZONTAL DRILLING TECHNIQUES USING BENT SUB CONVENTIONAL TOOLS TO DRILL LONGER EXTENDED REACH LATERALS

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APPROACH RESOURCES INC.



Forward-Looking Statements

This presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements, other than statements of historical facts, included in this presentation that address activities, events or developments that the Company expects, believes or anticipates will or may occur in the future are forward-looking statements. Without limiting the generality of the foregoing, forward-looking statements contained in this presentation specifically include the expectations of management regarding plans, strategies, objectives, anticipated financial and operating results of the Company, including as to the Company's Wolfcamp shale resource play, estimated resource potential and recoverability of the oil and gas, estimated reserves and drilling locations, capital expenditures, typical well results and well profiles, type curve, and production and operating expenses guidance included in the presentation. These statements are based on certain assumptions made by the Company based on management's experience and technical analyses, current conditions, anticipated future developments and other factors believed to be appropriate and believed to be reasonable by management. When used in this presentation, the words "will," "potential," "believe," "intend," "expect," "may," "should," "anticipate," "could," "estimate," "plan," "predict," "project," "target," "profile," "model" or their negatives, other similar expressions or the statements that include those words, are intended to identify forward-looking statements, although not all forward-looking statements contain such identifying words. Such statements are subject to a number of assumptions, risks and uncertainties, many of which are beyond the control of the Company, which may cause actual results to differ materially from those implied or expressed by the forward-looking statements. In particular, careful consideration should be given to the cautionary statements and risk factors described in the Company's most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q. Any forward-looking statement speaks only as of the date on which such statement is made and the Company undertakes no obligation to correct or update any forward-looking statement, whether as a result of new information, future events or otherwise, except as required by applicable law.

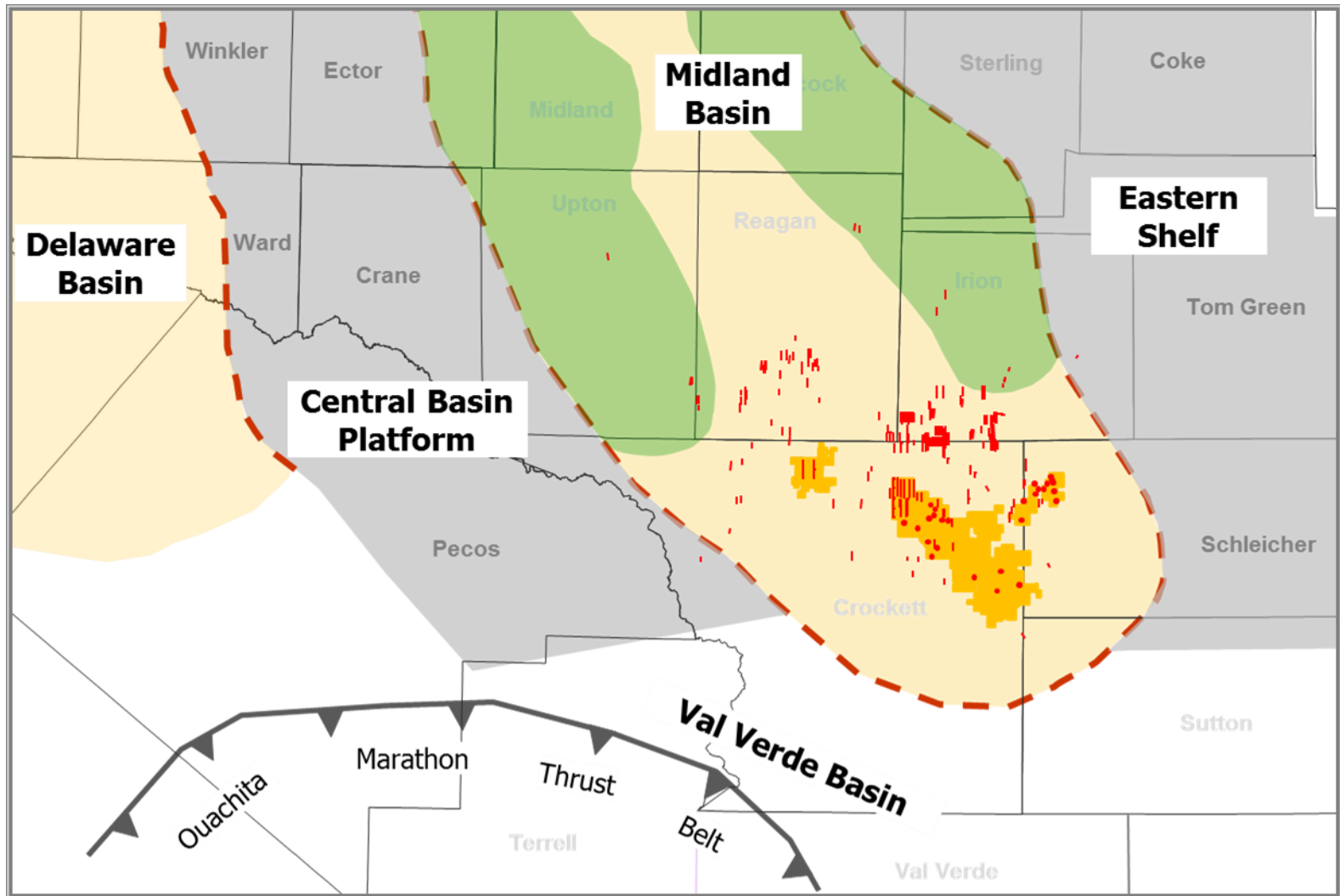
Cautionary Statements Regarding Oil & Gas Quantities

The Securities and Exchange Commission ("SEC") permits oil and gas companies, in their filings with the SEC, to disclose only proved, probable and possible reserves that meet the SEC's definitions for such terms, and price and cost sensitivities for such reserves, and prohibits disclosure of resources that do not constitute such reserves. The Company uses the terms "estimated ultimate recovery" or "EUR," reserve or resource "potential," and other descriptions of volumes of reserves potentially recoverable through additional drilling or recovery techniques that the SEC's rules may prohibit the Company from including in filings with the SEC. These estimates are by their nature more speculative than estimates of proved, probable and possible reserves and accordingly are subject to substantially greater risk of being actually realized by the Company.

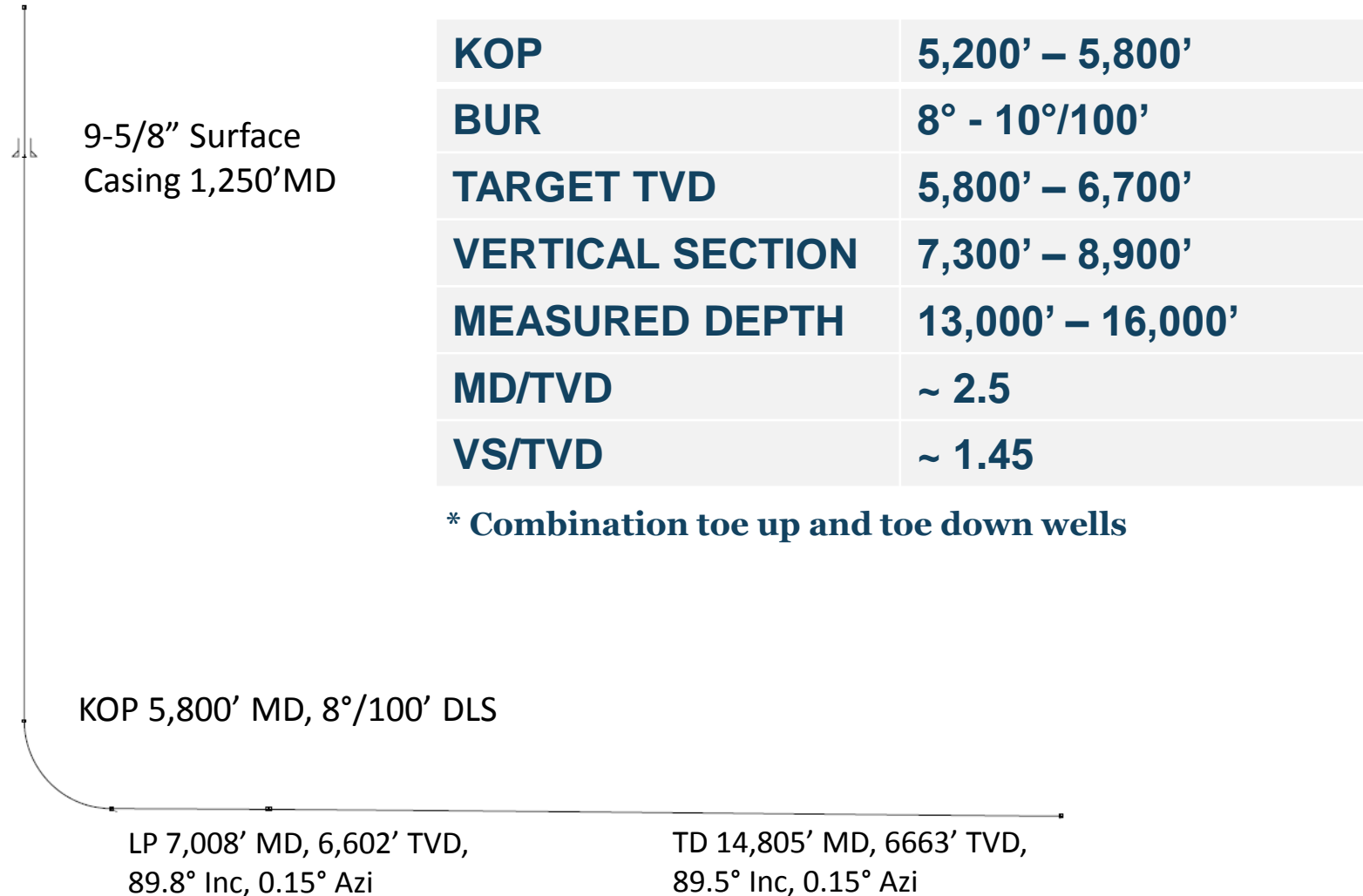
EUR estimates, identified drilling locations and resource potential estimates have not been risked by the Company. Actual locations drilled and quantities that may be ultimately recovered from the Company's interest may differ substantially from the Company's estimates. There is no commitment by the Company to drill all of the drilling locations that have been attributed these quantities. Factors affecting ultimate recovery include the scope of the Company's ongoing drilling program, which will be directly affected by the availability of capital, drilling and production costs, availability of drilling and completion services and equipment, drilling results, lease expirations, regulatory approval and actual drilling results, as well as geological and mechanical factors. Estimates of unproved reserves, type/decline curves, per well EUR and resource potential may change significantly as development of the Company's oil and gas assets provides additional data.

Type/decline curves, estimated EURs, resource potential, recovery factors and well costs represent Company estimates based on evaluation of petrophysical analysis, core data and well logs, well performance from limited drilling and recompletion results and seismic data, and have not been reviewed by independent engineers. These are presented as hypothetical recoveries if assumptions and estimates regarding recoverable hydrocarbons, recovery factors and costs prove correct. The Company has very limited production experience with these projects, and accordingly, such estimates may change significantly as results from more wells are evaluated. Estimates of resource potential and EURs do not constitute reserves, but constitute estimates of contingent resources which the SEC has determined are too speculative to include in SEC filings. Unless otherwise noted, IRR estimates are before taxes and assume NYMEX forward-curve oil and gas pricing and Company-generated EUR and decline curve estimates based on Company drilling and completion cost estimates that do not include land, seismic or G&A costs.

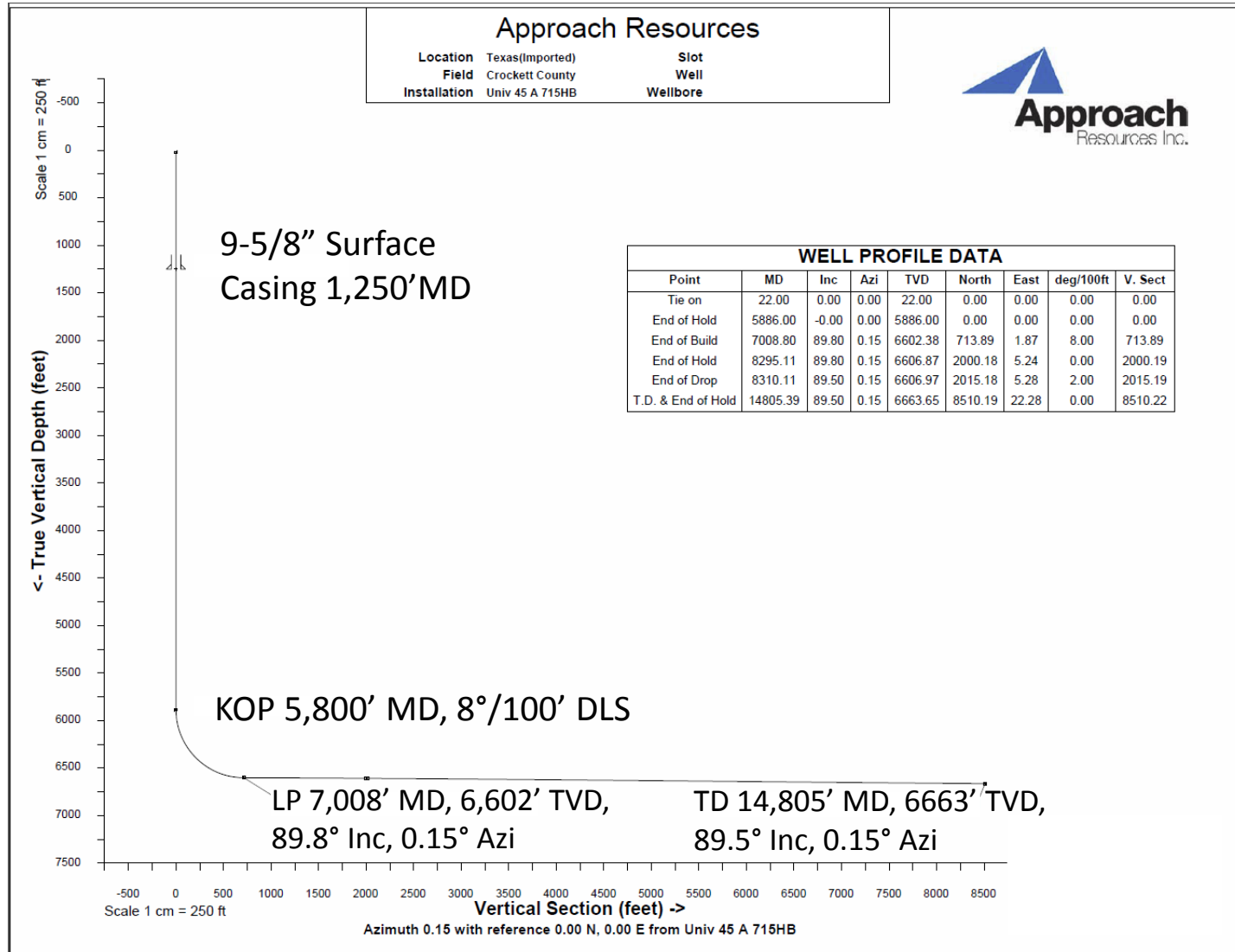
AREX Wolfcamp Play Favorably Located in the S. Midland Basin



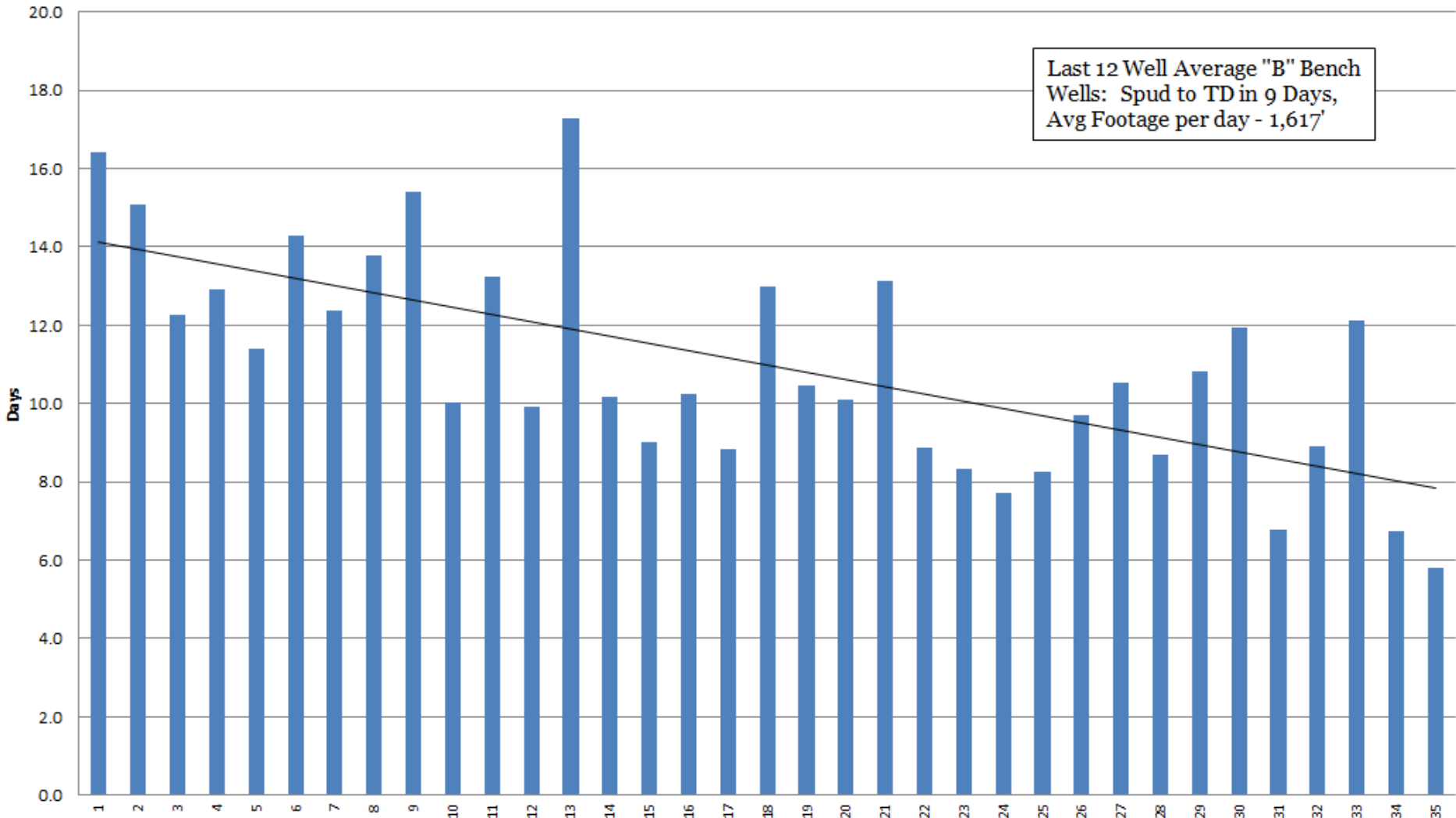
Summary



Vertical Section Plot

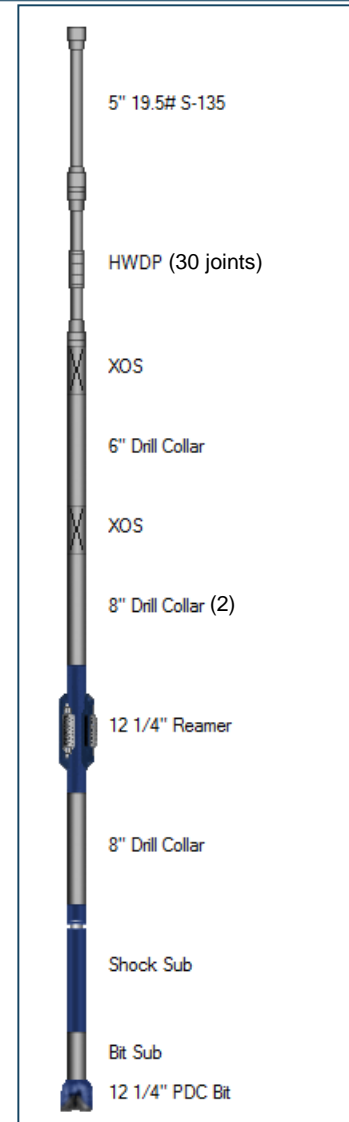


Wolfcamp Play - Spud to TD Days



Surface Hole Summary

- 12-1/4" Hole to +/- 1,250'
- Conventional Rotary Assembly w/PDC
- 6 Blade 5/8" Cutter PDC Bit
- Average 150'/hr
- Typically Loose Returns @ 360'
- 9-5/8" O.D., 36#, J-55, LTC



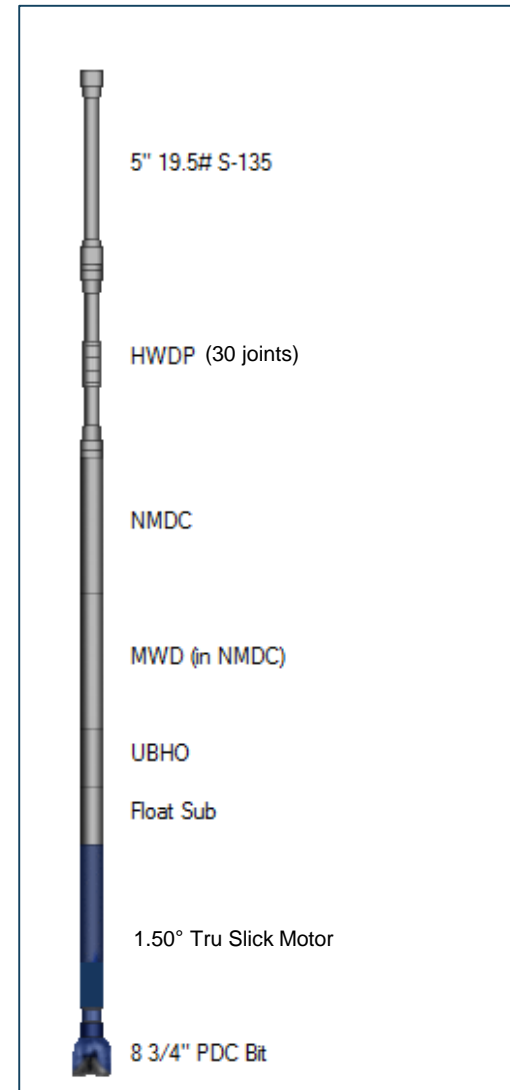
Production Hole Summary

- 8-3/4" Hole Size
- Typically drilled in three sections, but try for two
 - Vertical to KOP Section
 - Curve/Lateral Section
 - Lateral Section
- Brine Based XCD Mud System
 - Solids free
 - Bar for weight
 - Lubricant in system – Newpark Evolution
 - Low end Rheology easily controlled for superior horizontal hole cleaning
 - Mud up while drilling curve prior to 45° Inclination
- Float 5-1/2" Production Casing to TD
 - Centralized 1 Rigid Rotating Centralizer per joint from TD to TOC

Production Hole Summary – Vertical to KOP Section

Vertical to KOP Section

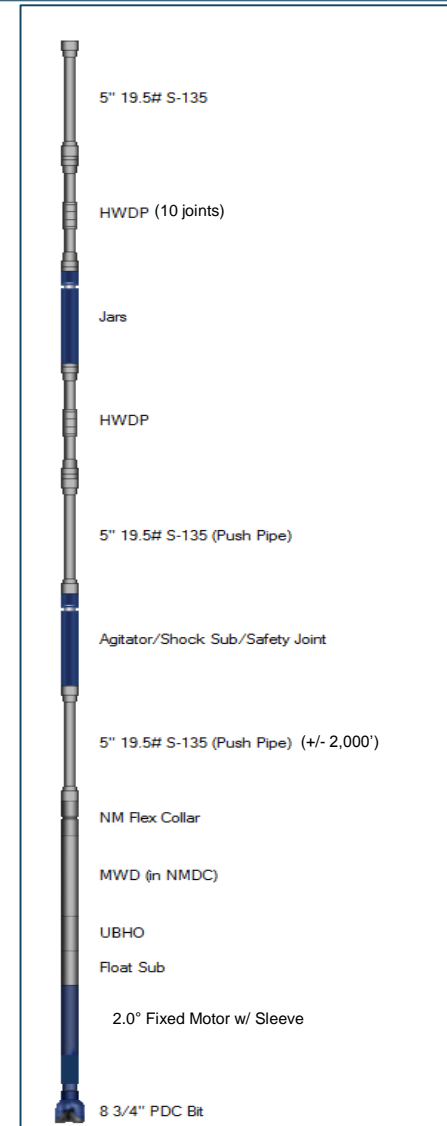
- Objective is to get to KOP as fast as possible while maintaining ability to rod pump well
- Slick Steerable BHA
- 5 Blade $\frac{3}{4}$ " Cutter PDC
- 10 ppg Saturated Brine
- Typically 24 hours to drill section +/- 160'/hr average



Production Hole Summary – Curve/Lateral Section

Curve/Lateral Section

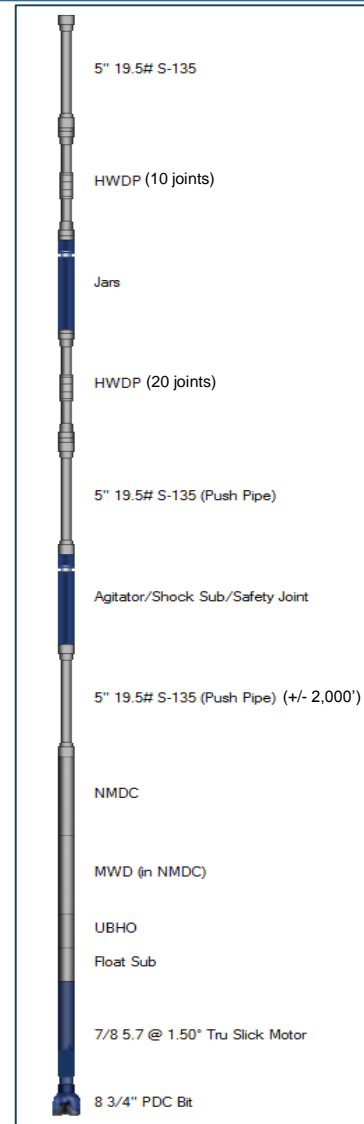
- Objective is to Drill Curve as per plan and as much Lateral Section, as possible
- Slick Steerable BHA
- 5 Blade 5/8” Cutter PDC
- Increasing MW as Mudding up
 - A Bench – 10.5 ppg ~ 45 vis
 - B Bench – 11.0 ppg ~ 45 vis
 - C Bench – 11.5 ppg ~ 45 vis
- Typically 24 hours to Drill Curve +/- 50’/hr
- Lateral Drills 2,200’ – 4,200’/day



Production Hole Summary – Lateral Section

Lateral Section

- Objective is to Drill Lateral as fast as possible staying within target tolerances. 20' above/below plan, 35' right/left plan.
- Slick Steerable BHA
- 5 Blade 5/8" Cutter PDC
- Lateral Drills up to 4,200'/day



Casing Running

- Utilize flotation sub at 70-90° inclination
- Centralize 1 Rigid Rotating per joint from TD to TOC
- Run casing dry to flotation sub
- Install flotation sub
- Run casing to TD filling with mud
- Install cement head and pressure up to release sub
- Bleed air at surface and fill pipe
- Drop bottom cement plug and displace flotation valve to shoe. Burst cement plug.
- Cement well as normal operation

Comparison to Rotary Steerable

- Rotary Steerable concept is superior.
- Approach increased curve penetration rate from 50'/hour to 100'/hour. Save 12 hours. Nice consistent curve with steady build rates.
- For Approach, penetration rates in vertical and lateral were less than bent sub system.
- Rotary steerable must improve bit designs.
- Rotary steerable systems also have failures. Must consider tool cost differences.
- At the end of the day, the increased cost of rotary steerable must be justified by reducing drilling time.
- Currently we can't justify rotary steerable in our application. However, we plan on additional testing with a different bit design.

Key Concepts for Success

- Hole Cleaning
 - Mud System
 - Solids Free
 - Shear Thinning
 - Good Lubricity
 - Good low end Rheology
- Tubulars
 - Correct pipe for hole size
 - 8-1/2 – 8-3/4” 5” DP
 - 7-7/8” 4-1/2” DP
 - 6-1/8” 4” DP
- Pump Rate
 - High as possible for hole cleaning and be at upper end of motor power curve
- Pipe Rotation
 - >75 RPM's in 8-3/4” – 5” DP configuration, above threshold
- Sweeps as Necessary
 - Depends upon base fluid properties
- Torque Monitoring and Tripping Trends prevents troubles

Key Concepts for Success

- Agitator
 - Necessary for longer wells
 - Enables steering at longer reach
 - Consider placement in string
 - Closer to bit, more control
 - Closer to bit, more vibration on MWD
 - Consider Differential Setting
 - Best advice is to monitor MWD vibration with different placement locations and differential settings to find the best combination.
- Minimize Tool Failures
 - Use shorter fixed bent housing instead of AKO's to minimize vibration.
 - Use 1.5 bent sub in lateral where possible to minimize vibration.
 - Participate with vendors on failure analysis and maintenance programs.

Performance

- Increased performance helps tool reliability. Less time in the hole for failures to happen.
- Continually work bit designs to improve P rate.
- Run slick monel vs flex in lateral, less steering corrections.
- Operate at the top of the power range for the motor (High GPM).
- Set Pressure Differential Targets 600 - 800 psi.

Acknowledgements

- A special thanks to the Management at Approach Resources for allowing me to present this material.