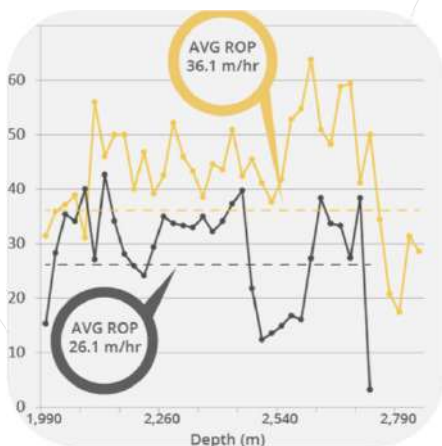


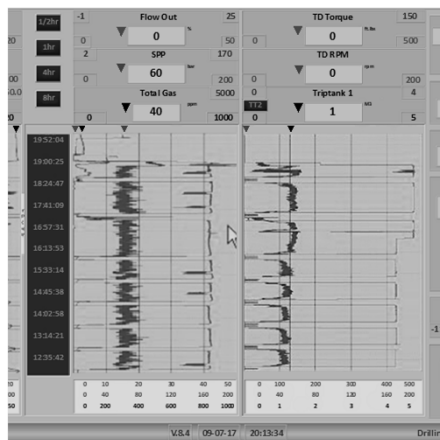
neotork presentation | July 2026

The logo for neotork, featuring the word "neotork" in a white, lowercase, sans-serif font. The letter "o" is replaced by a stylized yellow icon consisting of two curved shapes, one above and one below, forming a central circle. The logo is centered over a background of several thick, braided steel cables that are coiled and intertwined, creating a complex, geometric pattern. The cables are in shades of gray, and the overall image has a high-contrast, industrial feel. A thin, light gray circular line is also visible, partially enclosing the logo and the cables.

neotork added value



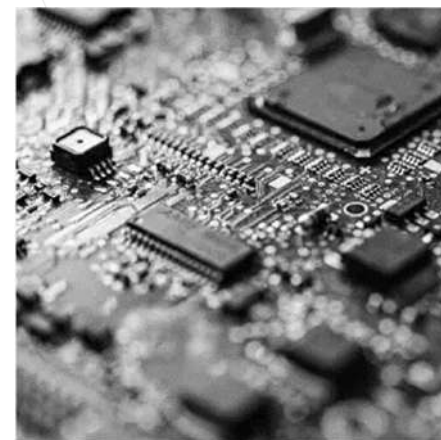
Improved ROP



Reduced vibrations



Extended bit life

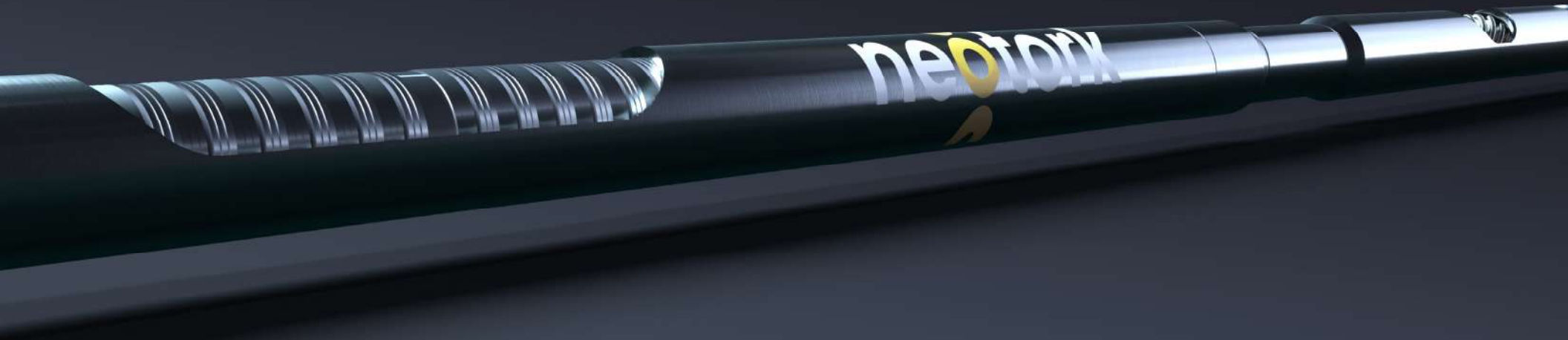


Prevent electronics failure

neotork presentation

downhole results

conclusion





Calibration



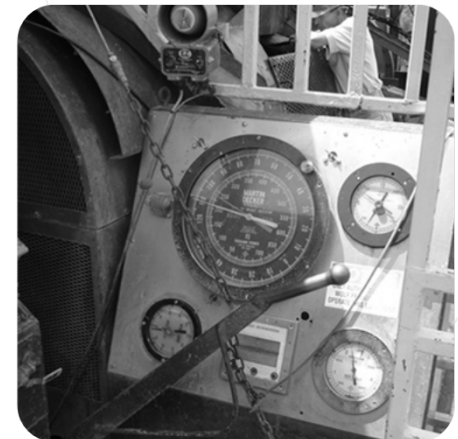
Power pack thrust



Hydraulic thrust

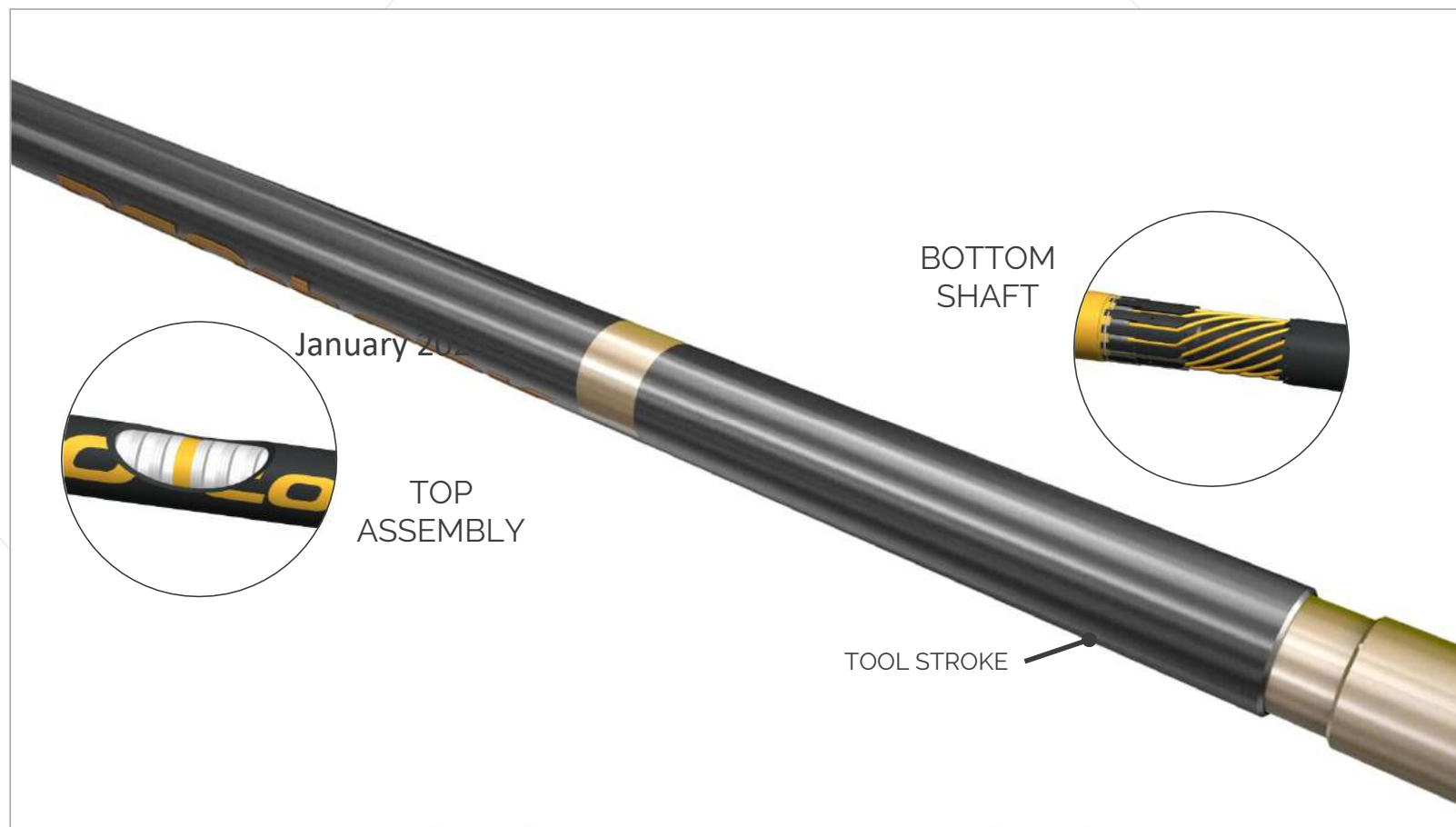


Torque thrust



Effective WOB

Tool description



neotork presentation

downhole results

conclusion



28m+ ft
drilled worldwide.



neotork effect on ROP – comparison

Companies & Tools			Competitor 1	Competitor 2	Competitor 3	Competitor 4	Neotork
	Tool: External Movement		Lateral Flex	Axial Compression	None	Helical Compression (Torsional + Axial Response)	
	Tool: Internal Movement		Elastomer	Spring / Hydraulics	Fluid metering or Counterweight Motion	Spline + Springs	Cable + Springs
						High Friction	Low Friction
Modes & Frequencies of Vibration	Axial Shock	Low Frequency Axial Oscillation (0-10Hz)	✖	✔	✖	✖	✔
		High Frequency Axial Oscillation(>50Hz)	✖	✔	✖	✖	✔
	Lateral	Direct Influence	✔	✖	✖	✖	✖
		Indirect Influence	○	✖	○	○	✔
	Torsional	Stick-Slip (0-3Hz)	✖	✖	✖	✔	✔
		HFTO (100Hz-500+Hz)	✖	✖	✔	✖	✔
Formation Characteristics	Gamma	High >100api	○	✔	○	○	✔
		Low <100api	○	✔	✔	✔	✔
Application Type	Vertical		✔	✔	○	✔	✔
	Curve		✔	○	○	○	✔
	Lateral		✔	○	✔	○	✔
	All of the Above		✔	○	○	○	✔
Depth-of-Cut Management			✖	✖	✖	✔	✔
Beneficiary	DD Company	Reduced vibration damage	○	○	○	○	✔
	Operator	Cycle Time & Reliability Improvement	✖	○	○	✔	✔
Classification Summary	Vibration Supression System (VSS): 3-Axes vibration capability (Primary Function)		VSS-Lateral	VSS-Axial	VSS-Torsional	VSS - Torsional	VSS - Torsional / Axial

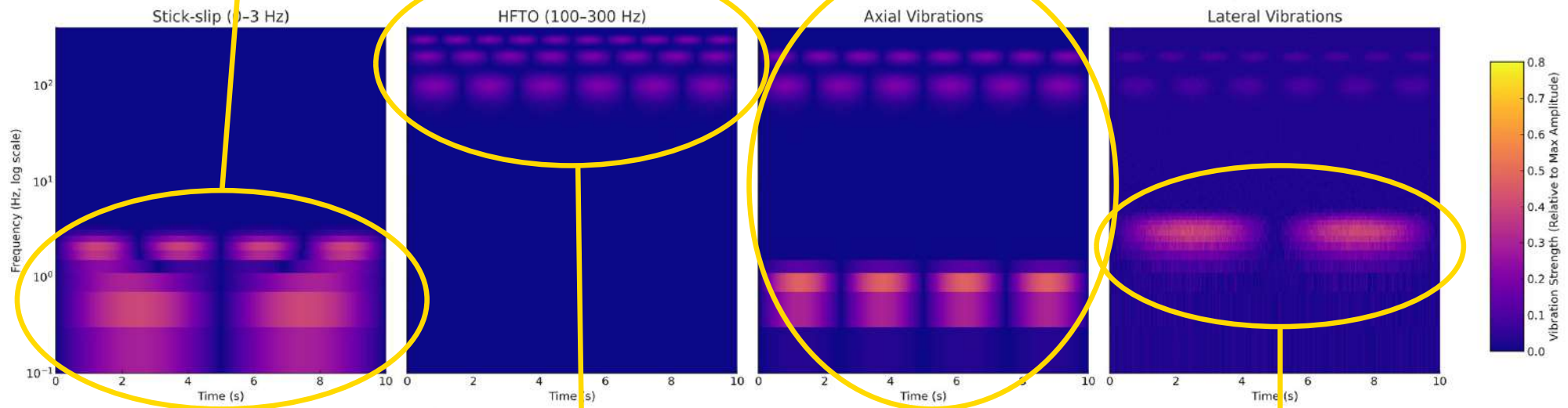
Legend

✓	Effective	
○	Less Effective	
×	Not Effective	
L	Low Friction	High Frequency Vibration Suppression
H	High Friction	Low Frequency Vibration Suppression

VSS - Sonogram

Decoupled 45° Spline + Spring
Tomax, Positrack etc...

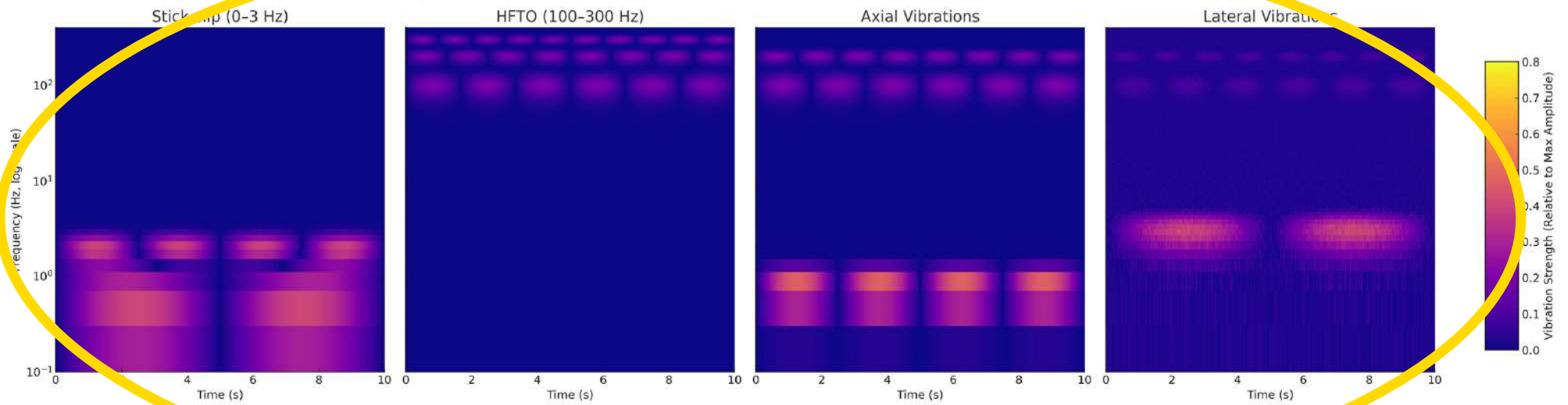
Axial - Shock Absorber



Internal counterbalance – Dampener

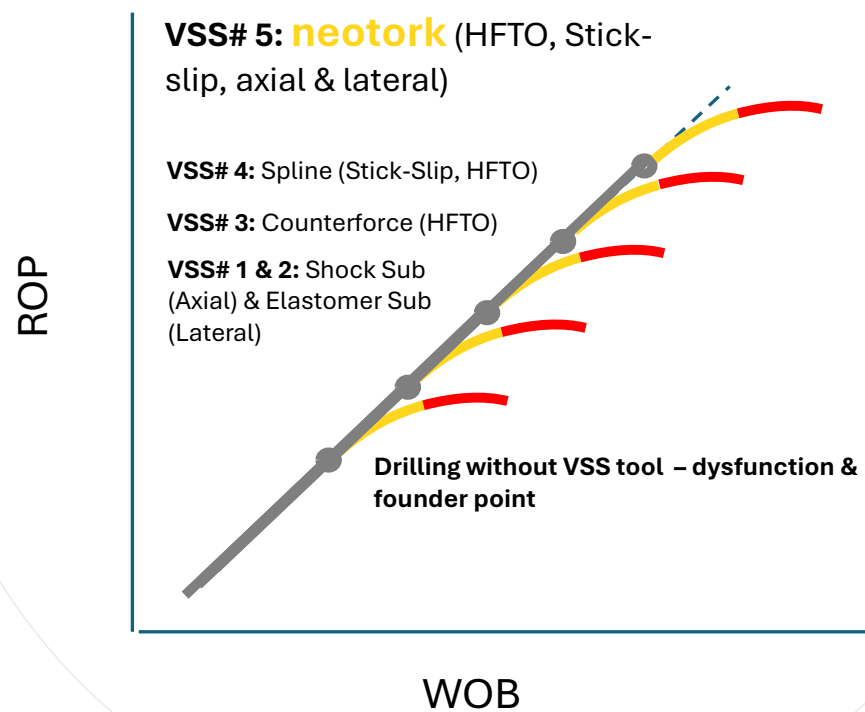
Lateral Flex - Elastomer

VSS - Sonogram



Decoupled Cable + Spring: Neotork

neotork effect on ROP – comparison

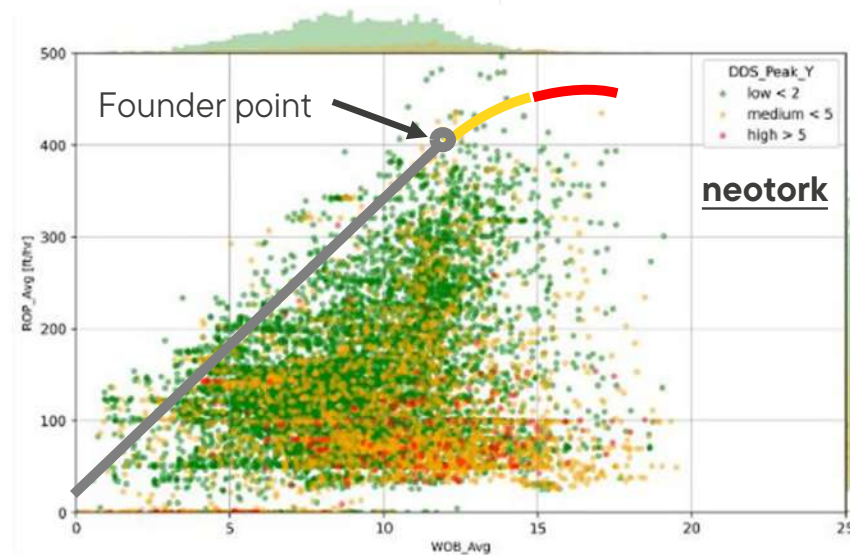
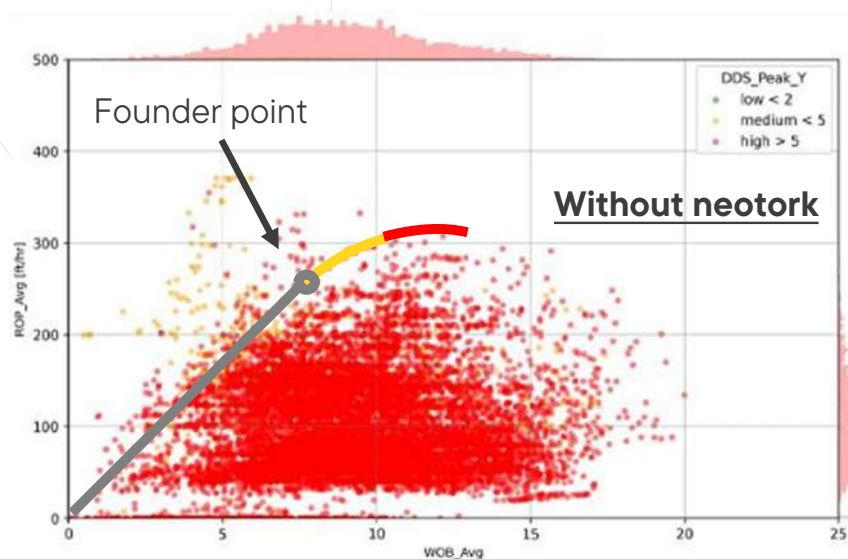
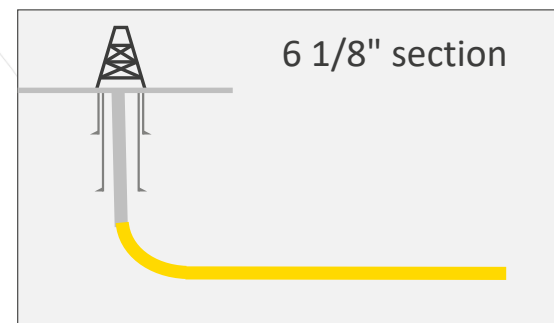


Improved ROP – Founder Point

Far East – Thailand

Neotork sets a **NEW TECHNICAL LIMIT** in the gulf of Thailand, which has 10,000 offsets

- Vibration induced dysfunction reduced from >5g to <2g
- Founder Point increased by 75% - Significantly improving drilling efficiency
- ROP increase by a minimum of 25%, in some instances up to 165% from offset wells



neotork effect on vibrations

HAL - iCruise / iCruise X vibration Operating Limits

6-3/4" and Smaller Tool Sizes: Ave Acceleration



All Tool Sizes: Peak Accelerations



Accelerometers Mounted:

X axis – Radially
Y axis – Tangentially
Z axis – Axially

SSI and HFTO are derived from rotational measurements.

All Tool Sizes: Stick-Slip

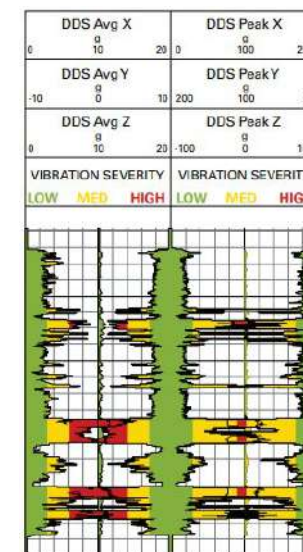


All Tool Sizes: High Frequency Torsional Oscillation



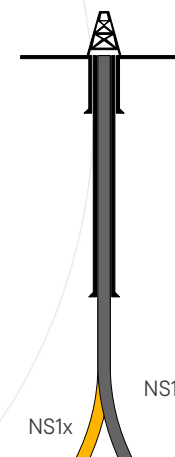
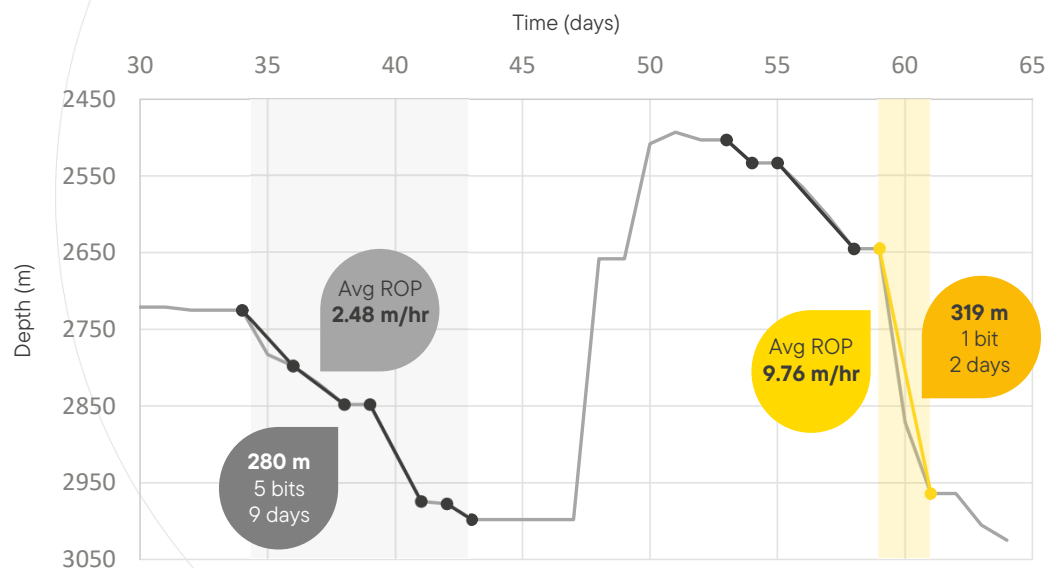
Exceeds specified limits after:

- Average X, Y : 40 min in high zone
- Average Z: 20 min in high zone
- HFTO: 60 min in high zone
- Peak X or Y: 300 events in high zone
- Peak Z: 200 events in high zone
- SSI:
 - 12 hrs Between 100 – 200%
 - 60 min >200%



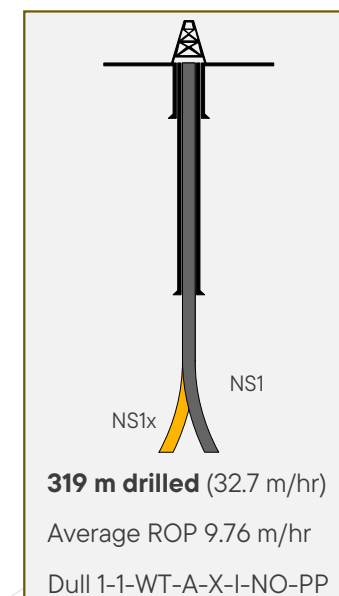
Improved ROP and bit footage

Europe - Southern North Sea



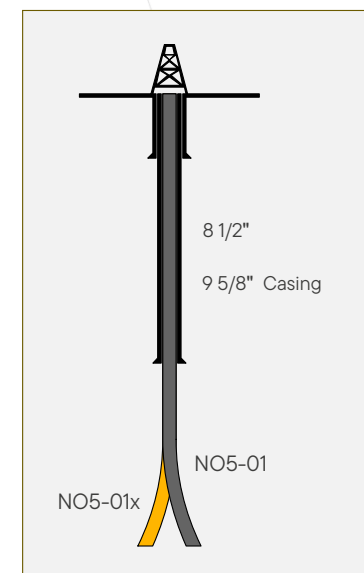
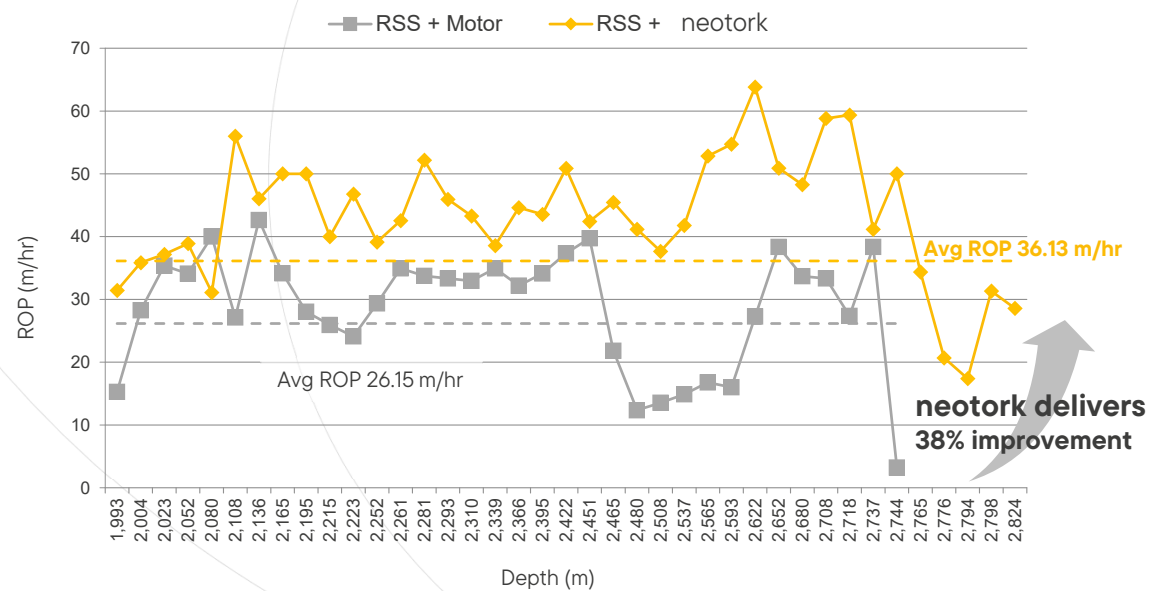
Improved bit life

Europe - Southern North Sea



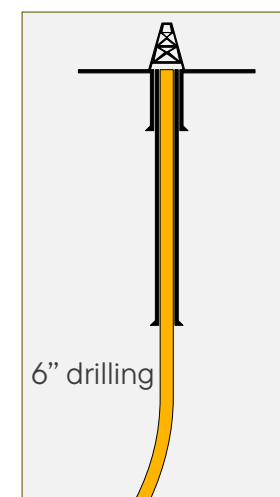
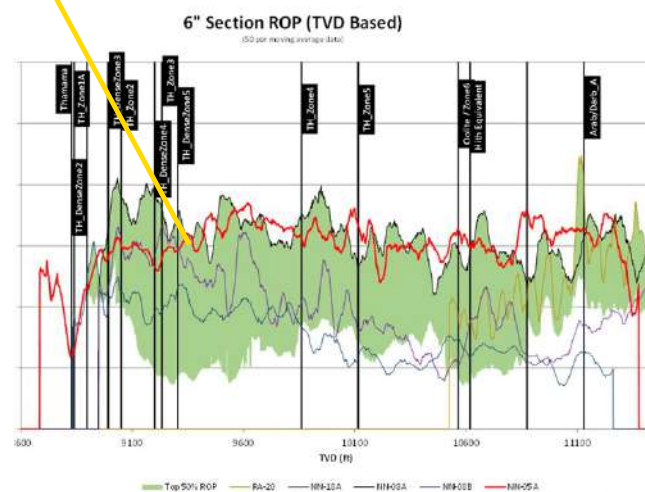
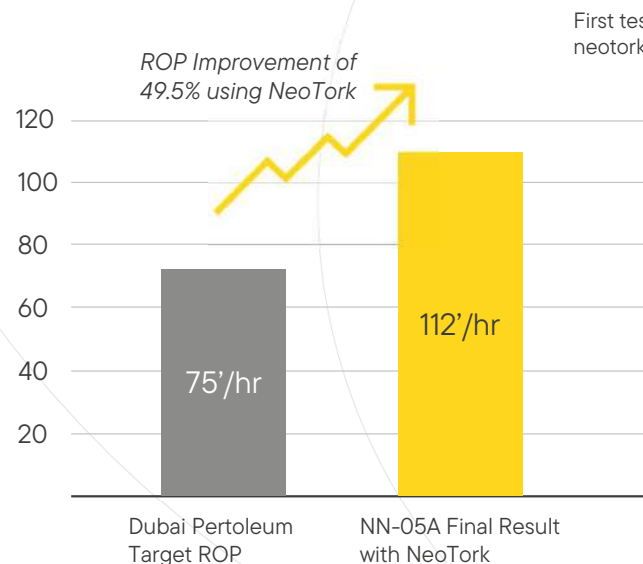
Well NO5-01 vs NO5-01x

Europe - North Sea



Well NN-05A 6" Section

Middle East UAE | NN-05A Versus Target ROP

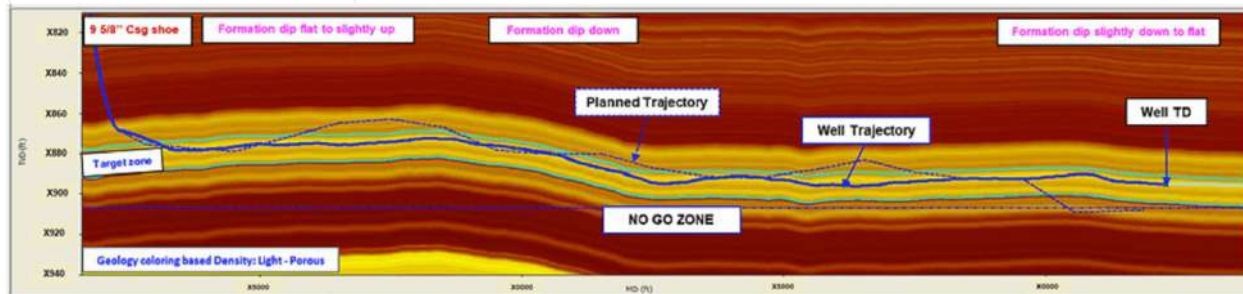


Longest and fastest onshore ERD well using neotork in 12-1/4" and 8-1/2" section

- neotork holds record as the fastest and longest 12¼" hole and 8½" well sections drilled in the field to date
- 20,018-ft lateral section was geosteered with 100% reservoir contact and low Stick-Slip index
- new footage record: 29% improvement in rate of penetration and versus the field average



HALLIBURTON

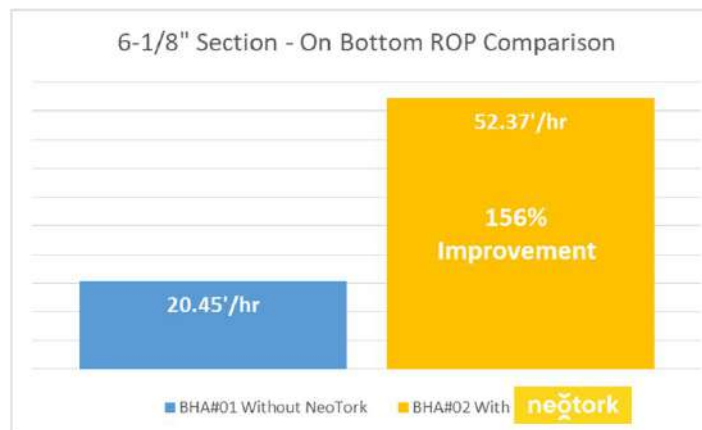
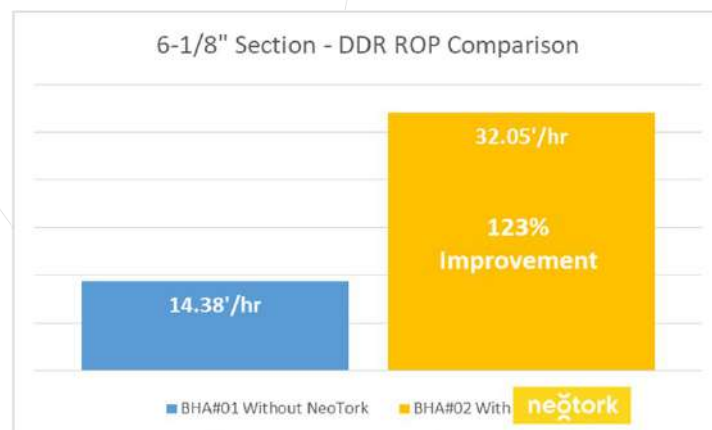


**longest
fastest
onshore well
in the UAE
32,300 FT**

Sabriyah field

SA-814 S1 – 6 1/8" horizontal section – RSS

A significant increase was noticed when comparing neotork BHA to the previous run with a **3-fold improvement**



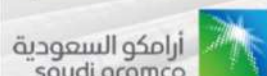
Mazalij field

Record run

أرامكو السعودية
saudi aramco


Schlumberger

Special Thanks to Saudi Aramco



Drilling and Work Over

5 7/8" Horizontal Section

NeoTork Performance: 1,645 ft at an average ROP of 17.4 ft/hr.

Results demonstrate a 35% increase in ROP and 11.5% increase in footage drilled compared to reference wells, which include the use of competing Anti-Stick-Slip tools.

Based on data recorded by the directional company during the NeoTork run, the Stick-Slip index (SSI) was significantly improved upon, reducing the vibration by a factor of 3, and enabling the improvement in drilling performance.



neotork

Up To 35% increase in ROP

11.5% increase in footage against reference well

Smooth Drilling improved by 75% against competing tool



Graph above shows a strong reduction in Stick-Slip readings compare to another tool of similar function run immediately below the NeoTork run.

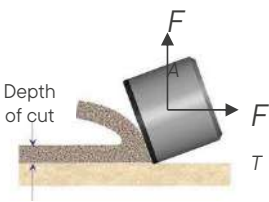


US Permian (NM)

neotork – the differentiator

- **1st Run:** neotork's inaugural run for operator
- **BHA Design:** only change was including neotork
- **Complimentary Technology:** neotork's unique mechanism enables continuous bit engagement

Neotork automatically adjusts for sudden and unwanted forces:

- $F_A = \text{Axial Force}$
 - $F_T = \text{Torsional Force}$
- 
- **“25.6% Improvement in ROP”** from previous record, for operator in Eddy County New Mexico

Ultrerra Drilling Technologies L.P.
24,608 followers
2h • 🌐

Increasing efficiency in Eddy County, New Mexico, **Marathon Oil Corporation** partnered with our team to drill their 9,501 ft. lateral section in record-time. Utilizing Ultrerra's 8.5" CF616 on an RSS, **Cactus Drilling Co** 169 reached total depth in 40.5 hours — achieving an average ROP of 235 ft/hr. Compared to Marathon's previous 8.5" lateral record, a 9,530 ft. section at an average ROP of 187 ft/hr, Cactus 169 achieved a 25.6% increase in ROP!

Congratulations to all those involved, including **Omar David Agudelo**, Chris Bourdeon, and **Cody Jordan**.
#Ultrerra #Drilling #PermianBasin



MarathonOil CACTUS

ULTRERRA **COUNTRY**

MARATHON OIL AND CACTUS 169 SET OPERATOR 8.5" LATERAL RECORD

25.6% INCREASE IN ROP COMPARED TO PREVIOUS RECORD

DRILLED	9,501 FT
HOURS	40.5 HOURS
ROP	235 FT/HR
LOCATION:	EDDY COUNTY, NM
OPERATOR:	MARATHON OIL COMPANY
FORMATION:	BONE SPRING
BHA:	ROTARY STEERABLE
BIT SIZE/TYPE:	8.5" CF616

Source: <https://www.linkedin.com/feed>

Midland Basin

Back-to-Back Record Curve/Lateral runs (5 ¼" neotork)

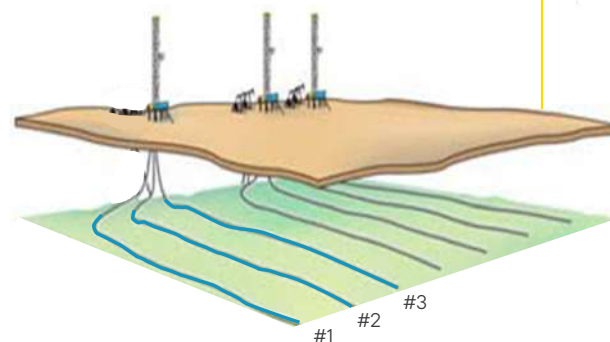
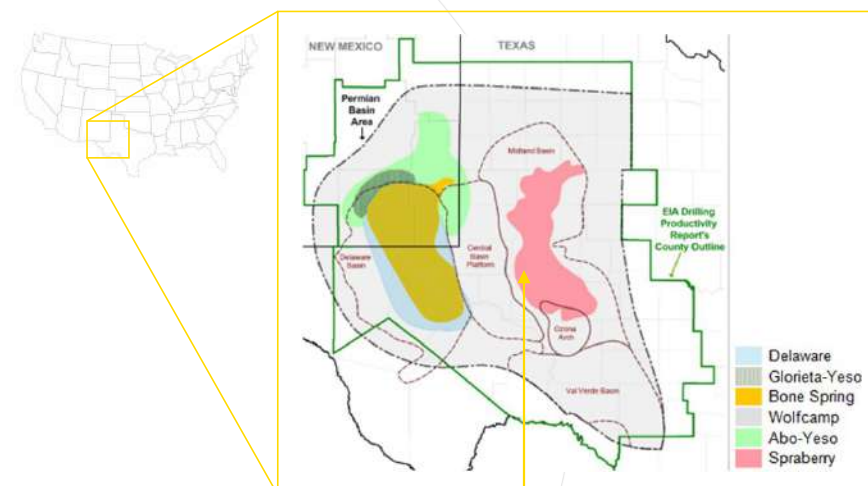
Pioneer:

3 well pad with high dogleg, 6 ¾" slim-hole horizontal well

Results:

neotork eliminates up to 3 trips in 6 ¾" slim hole application

- **CURVE (11° DLS):** Use of 5 ¼" neotork eliminates need for a dedicated curve run
- **HORIZONTAL:** Normally requires 2-3 runs to complete the section
- **SINGLE RUN:** neotork is the only vibration reduction tool able to drill curve and lateral section – This was achieved on all 3 wells
- **RECORDS:**
 - Longest: interval
 - Fastest: 8,750 ft in 24hr period
 - Fastest: 3.7 on-bottom days



#1 well: drilled 16,768 ft

#2 well: drilled 16,741 ft

#3 well: drilled 17,214 ft

Pioneer has now used neotork in over 400 wells

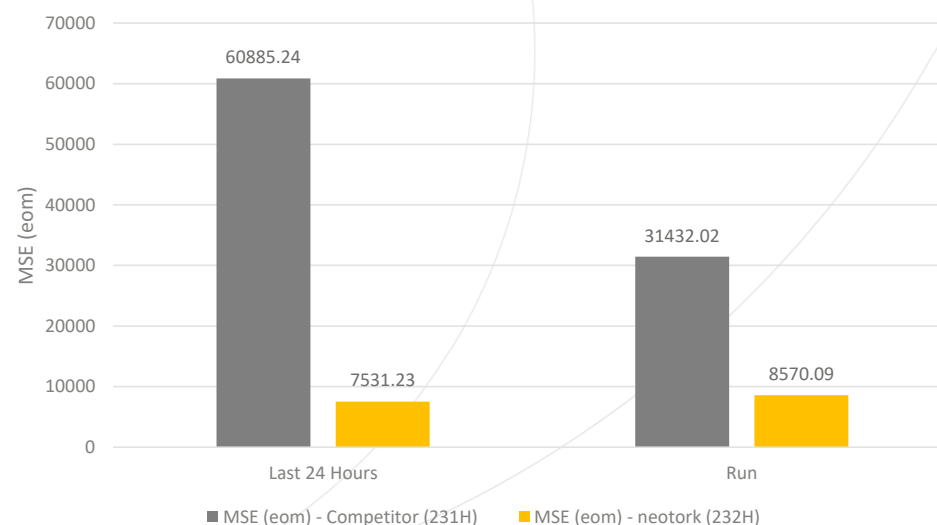
Permian Basin

Neotork is a key tool in Chevrans factory approach of drilling wells

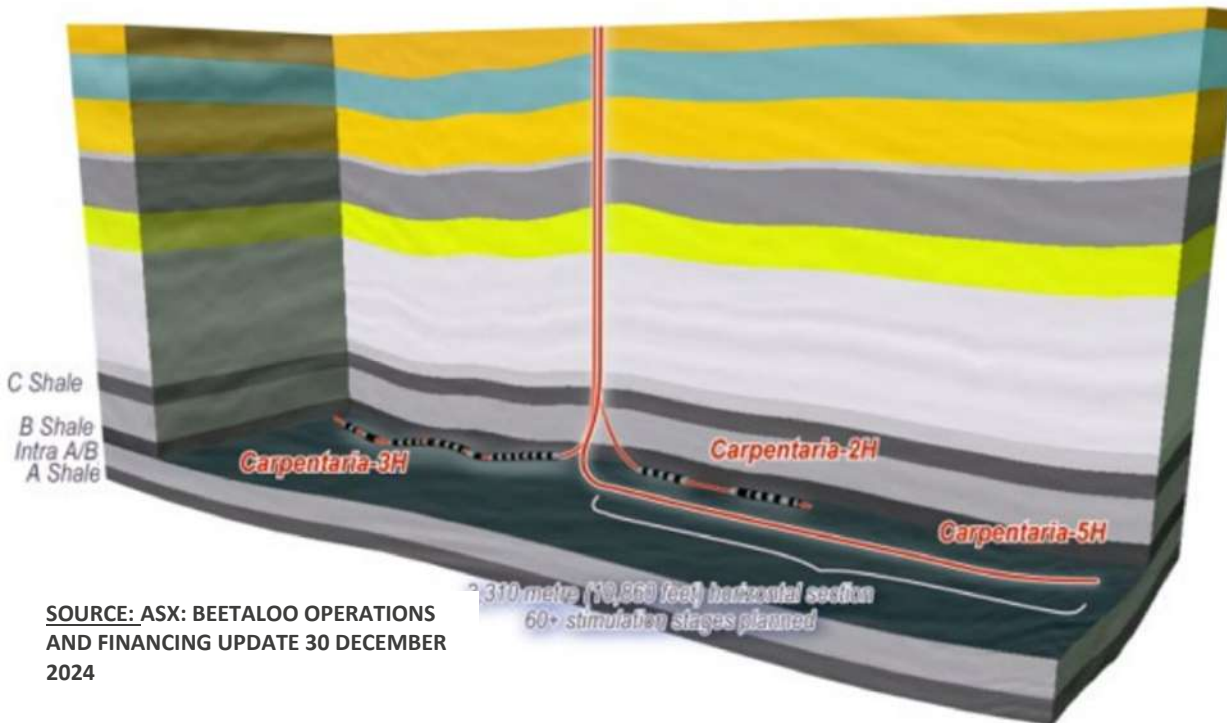
- **6 1/8" Slim-hole:** 5 1/4" neotork
- **Vibration:** Significant reduction in S&V
- **MSE:** Reduced compared to competitor
- **Speed:** 25% ROP improvement
- **Rig Uptake:** From 0 to 9 of 12 rigs in 4 months
- **Savings:**
 - 1 day per well
 - 270 drilling days per year



MSE (eom) Comparison



Australia – Beetaloo Basin



SOURCE: ASX: BEETALOO OPERATIONS
AND FINANCING UPDATE 30 DECEMBER
2024



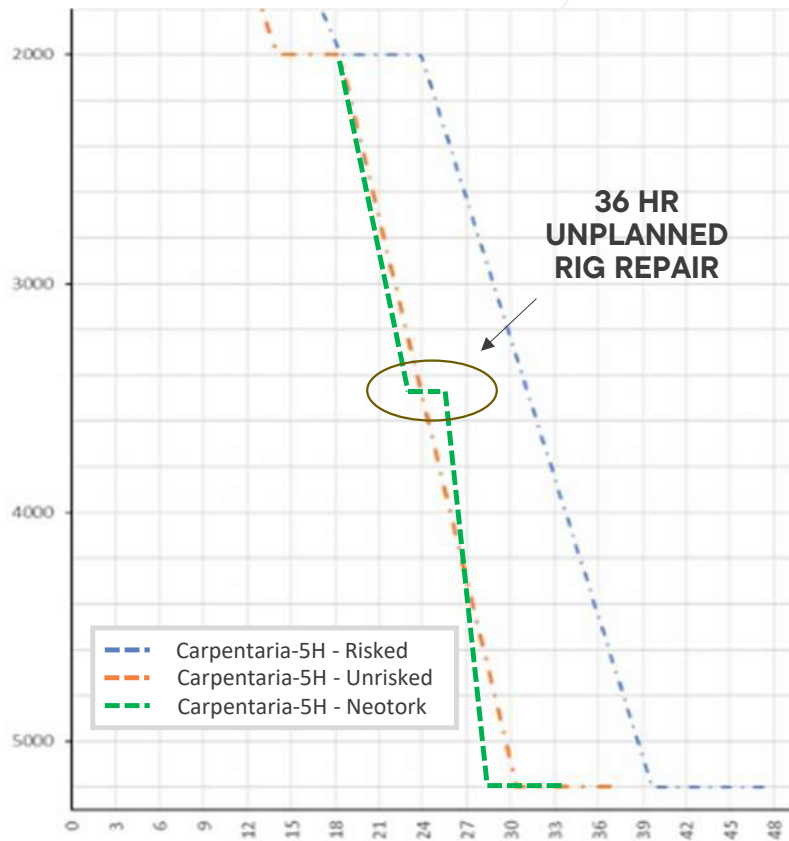
neotork

- **LONGEST LATERAL:** 3,310m
- **BEAT PLAN:** By 4 Days
- **SINGLE TRIP:** Protected BHA



By preventing the generation of vibrations at the source, neotork delivered higher and cleaner energy to the bit

Australia – Beetaloo Basin



33% Faster



neotork

- **LONGEST:** 3,310m (10,860ft) Lateral drilled in the Beetaloo basin
- **FASTEST:** 8 days to drill, despite having a 36HR unplanned rig service
- **SINGLE RUN:** Drilled 8 ½" section to TD in one run

By preventing the generation of vibrations at the source, neotork delivered higher and cleaner energy to the bit



SOURCE: ASX: BEETALOO OPERATIONS AND FINANCING UPDATE 30 DECEMBER 2024

Customer Satisfaction Survey



Job Description	Service ticket#/Job#	Job Date	Location										
Provision of Neotork anti-vibration tool.	N/A	December 2024	Northern Territories										
Client	Client Representative	SOW	Well Name										
Ingaugue/Imperial	John Grehan	To provide vibration mitigation to the 8 1/2" BHA through the horizontal section of Carpentaria -5H	Carpentaria-5H										
IOT Energy Services Personnel	Total IOT ES Personnel onsite	Type of Service	HSE Incident (Accident, Injury etc)										
N/A	N/A	Drilling Rental Tools	☐ Yes ☐ No										
Client satisfaction depends on the quality of the service process and is related to the following criteria:		Please indicate your response by placing a tick in the box underneath the rating that best matches your opinion.											
- The subjective comparison between the clients' expectations before they received the service and their actual experience with the service. - Quality evaluations both of the service process and service outcome. - The level at which regular service is delivered and the level at which exceptions or problems are handled. Please take the time to fill in this form and provide us with the feedback we need in order for IOT Energy Services to better understand your needs and enhance our service.		<table border="1"> <tr> <th>Superior Performance (New quality performance standard - Best Practice)</th><th>Exceeded Expectations (Did what was expected - Prevention/Improvement)</th><th>Met Expectations (Did what was expected - Performance Report)</th><th>Below Expectations (Did not perform as expected - Non-Conformance Report)</th><th>Poor Performance (Job problem/failure - Non-Conformance Report)</th></tr> <tr> <td>5</td><td>4</td><td>3</td><td>2</td><td>1</td></tr> </table>		Superior Performance (New quality performance standard - Best Practice)	Exceeded Expectations (Did what was expected - Prevention/Improvement)	Met Expectations (Did what was expected - Performance Report)	Below Expectations (Did not perform as expected - Non-Conformance Report)	Poor Performance (Job problem/failure - Non-Conformance Report)	5	4	3	2	1
Superior Performance (New quality performance standard - Best Practice)	Exceeded Expectations (Did what was expected - Prevention/Improvement)	Met Expectations (Did what was expected - Performance Report)	Below Expectations (Did not perform as expected - Non-Conformance Report)	Poor Performance (Job problem/failure - Non-Conformance Report)									
5	4	3	2	1									
Description of Service	5	4	3	2	1								
Did our support personnel perform the job to your satisfaction?	☒												
Did our equipment perform the job to your satisfaction?		☒											
Did we perform the job to the agreed scope of work?		☒											
Did we perform the job within the planned time?	☒												
Did we perform in a safe and careful manner?		☒											
Did we perform in an environmentally sound manner?		☒											
Did our service provide value to your operation?		☒											
Client Comments													
Excellent customer service and commitment to facilitating the first run of a 7" Neotork tool in Australia on the extended-reach lateral shale gas well Carpentaria-5H in the Beetaloo basin by flying the tools in from overseas to meet the drilling schedule.													
No baseline performance data is available with motor-assisted RSS in 8-1/2" hole size on analogue wells, however the 3310m horizontal section was drilled to TD in a single run at an average on-bottom ROP of 34.8 m/hr which is approximately 64% faster than offset slimhole laterals of shorter length. Detailed run analysis is yet to be undertaken however it appears that the Neotork tool contributed positively to the success of the run by mitigating the effect of stick-slip and other vibration modes during the run.													
Client Signature	Date												
	30/12/2024												
All data collected is for trend analysis and improving the quality of IOT ES Services													

Customer Satisfaction

neotork

“No baseline performance data is available with motor-assisted RSS in 8-1/2” hole size on analogue wells, however the 3310m horizontal section was drilled to TD in a single run at an average on-bottom ROP of 34.8 m/hr which is approximately **64% faster than offset slimhole laterals of shorter length.**”

neotork effect on vibrations

HAL - iCruise / iCruise X vibration Operating Limits

6-3/4" and Smaller Tool Sizes: Ave Acceleration



All Tool Sizes: Peak Accelerations



Accelerometers Mounted:

X axis – Radially
Y axis – Tangentially
Z axis – Axially

SSI and HFTO are derived from rotational measurements.

All Tool Sizes: Stick-Slip

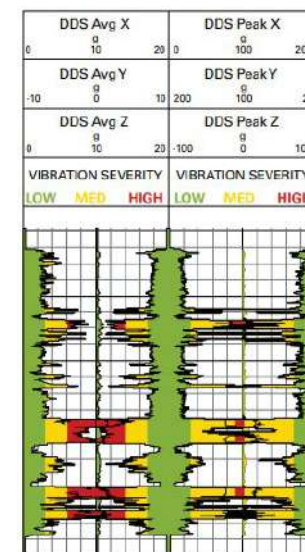


All Tool Sizes: High Frequency Torsional Oscillation



Exceeds specified limits after:

- Average X, Y : 40 min in high zone
- Average Z: 20 min in high zone
- HFTO: 60 min in high zone
- Peak X or Y: 300 events in high zone
- Peak Z: 200 events in high zone
- SSI:
 - 12 hrs Between 100 – 200%
 - 60 min >200%



neotork effect on vibrations

Baker ATC – operating criteria

Axial, Lateral, and Tangential Vibrations						
Measurement Source	Tool Size	Unit	Time Limit			
			No Limit	30 hours		
					10 hours	
		Severity Level	< L3	L3	L4 to L5	>L5
AutoTrak Curve Steering Unit	6¾ in.	gRMS	$x < 5$	$5 \leq x \leq 8$	$8 \leq x \leq 15$	$x > 15$

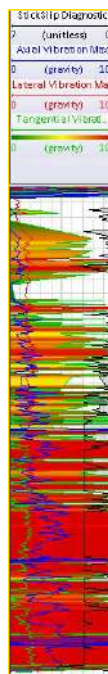
Flex ATC

Redbud 3HR

- OOS with over 20 hours Level 4-5 tangentials
- Limit is 10 hours

Tangential [g_RMS] vs. Time [Hours]

Lvl 0 : < 1.0 gravity	6.87
Lvl 1 : 1.0 – 3.0	0.79
Lvl 2 : 3.0 – 5.0	0.33
Lvl 3 : 5.0 – 8.0	2.91
Lvl 4 : 8.0 – 12.0	19.23
Lvl 5 : 12.0 – 15.0	1.37
Lvl 6 : 15.0 – 21.0	0.00
Lvl 7 : > 21.0	0.08
Tangential Total hours	31.59

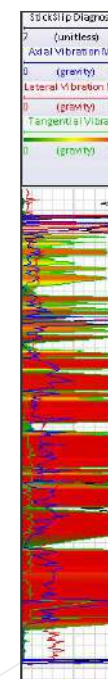


Redbud 4HR

- OOS with ~14 hours Level 4-5 tangentials
- Limit is 10 hours

Tangential [g_RMS] vs. Time [Hours]

Lvl 0 : < 1.0 gravity	2.85
Lvl 1 : 1.0 – 3.0	1.37
Lvl 2 : 3.0 – 5.0	0.86
Lvl 3 : 5.0 – 8.0	0.8
Lvl 4 : 8.0 – 12.0	13.98
Lvl 5 : 12.0 – 15.0	0.00
Lvl 6 : 15.0 – 21.0	0.11
Lvl 7 : > 21.0	0.06
Tangential Total hours	20.02



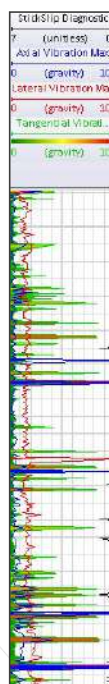
Flex ATC with neotork

Manassas 11HZ

- ~25% of OOS limit on Level 4-5 tangentials
- Limit is 10 hours

Tangential [g_RMS] vs. Time [Hours]

Lvl 0 : < 1.0 gravity	28.45
Lvl 1 : 1.0 – 3.0	1.60
Lvl 2 : 3.0 – 5.0	0.12
Lvl 3 : 5.0 – 8.0	0.90
Lvl 4 : 8.0 – 12.0	2.55
Lvl 5 : 12.0 – 15.0	0.00
Lvl 6 : 15.0 – 21.0	0.00
Lvl 7 : > 21.0	0.08
Tangential Total hours	33.71

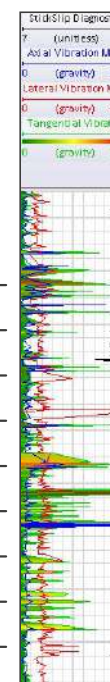


Manassas 14HZ

- ~5% of OOS limit on Level 4-5 tangentials
- Limit is 10 hours
- 2nd run on tool

Tangential [g_RMS] vs. Time [Hours]

Lvl 0 : < 1.0 gravity	18.37
Lvl 1 : 1.0 – 3.0	3.42
Lvl 2 : 3.0 – 5.0	1.48
Lvl 3 : 5.0 – 8.0	1.48
Lvl 4 : 8.0 – 12.0	0.46
Lvl 5 : 12.0 – 15.0	0.00
Lvl 6 : 15.0 – 21.0	0.00
Lvl 7 : > 21.0	0.05
Tangential Total hours	25.25

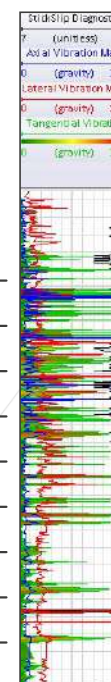


Laramie 21HZ

- ~29% of OOS limit on Level 4-5 tangentials
- Limit is 10 hours

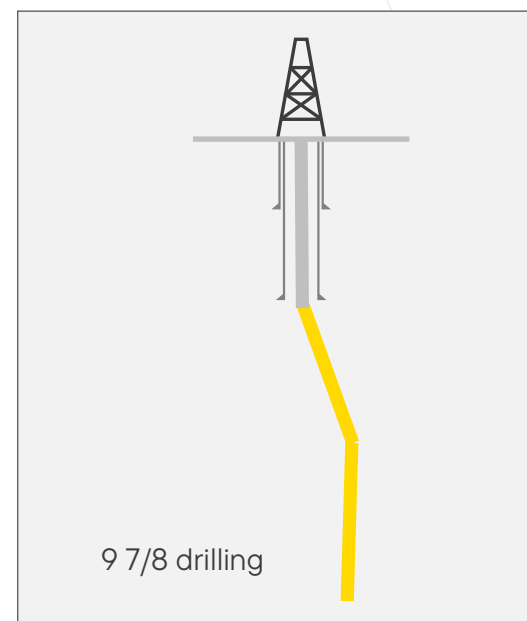
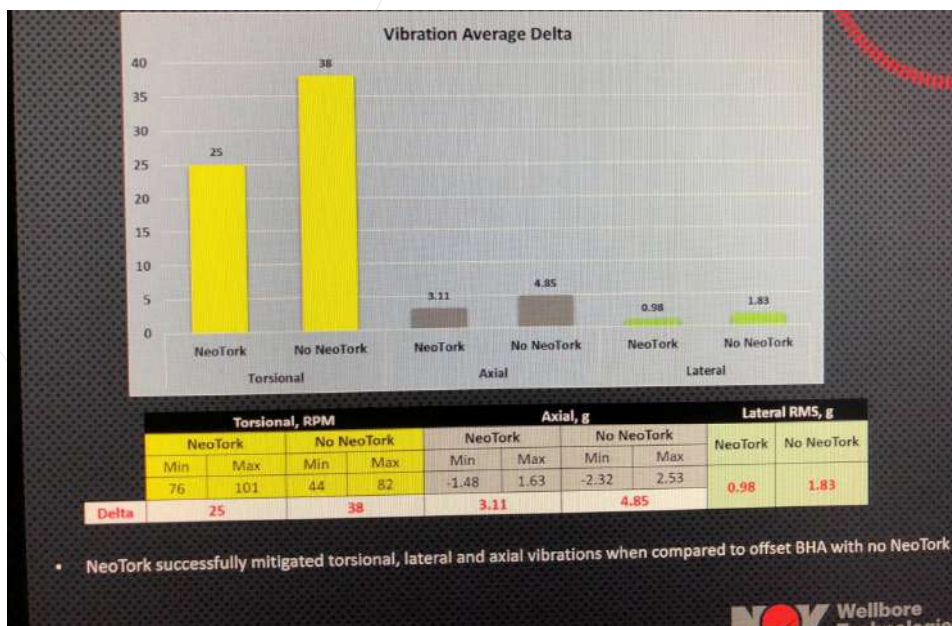
Tangential [g_RMS] vs. Time [Hours]

Lvl 0 : < 1.0 gravity	25.26
Lvl 1 : 1.0 – 3.0	4.43
Lvl 2 : 3.0 – 5.0	0.89
Lvl 3 : 5.0 – 8.0	1.58
Lvl 4 : 8.0 – 12.0	2.86
Lvl 5 : 12.0 – 15.0	0.00
Lvl 6 : 15.0 – 21.0	0.00
Lvl 7 : > 21.0	0.00
Tangential Total hours	35.01



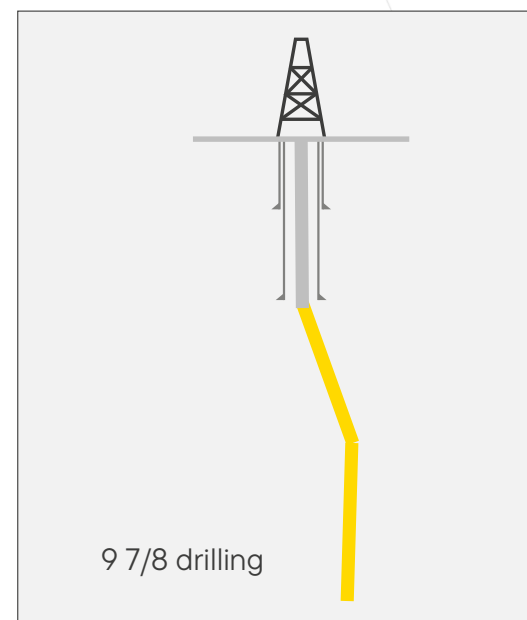
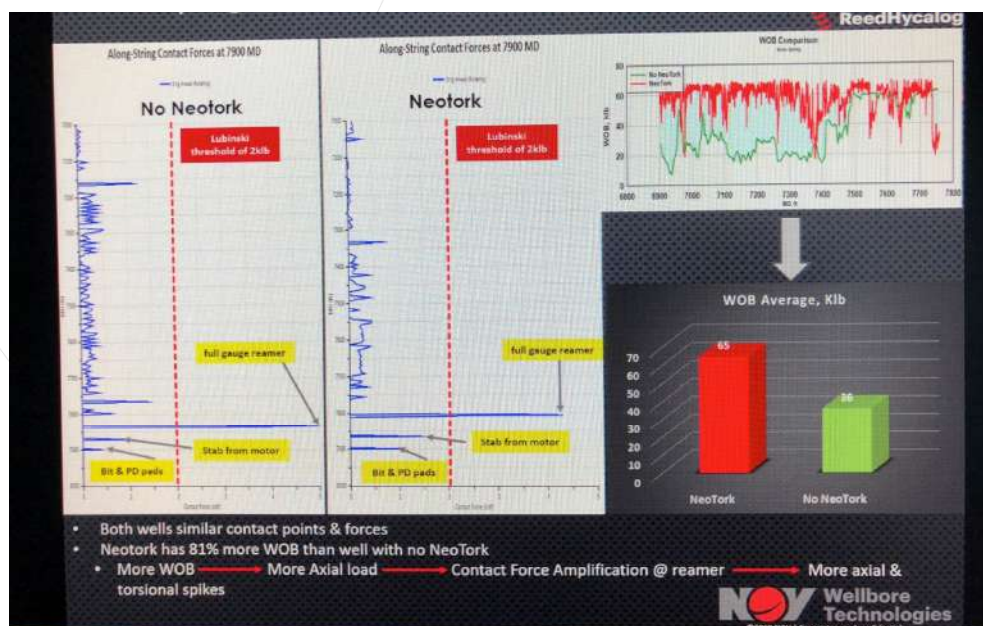
Better reduction in vibrations

US – Permian (New Mexico)



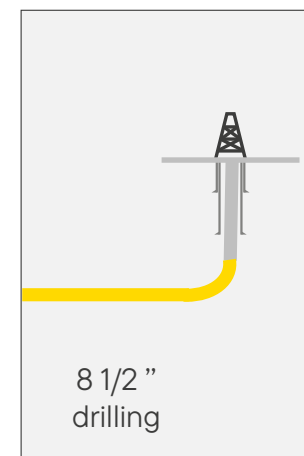
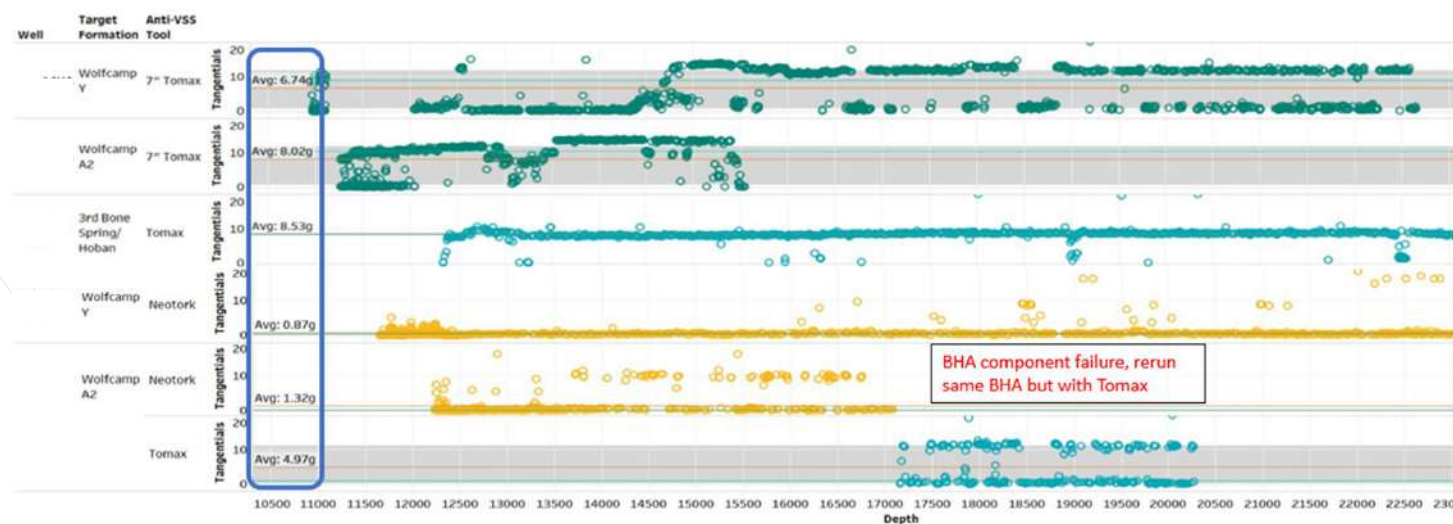
Lower vibrations = Higher WOB

US – Permian (New Mexico)

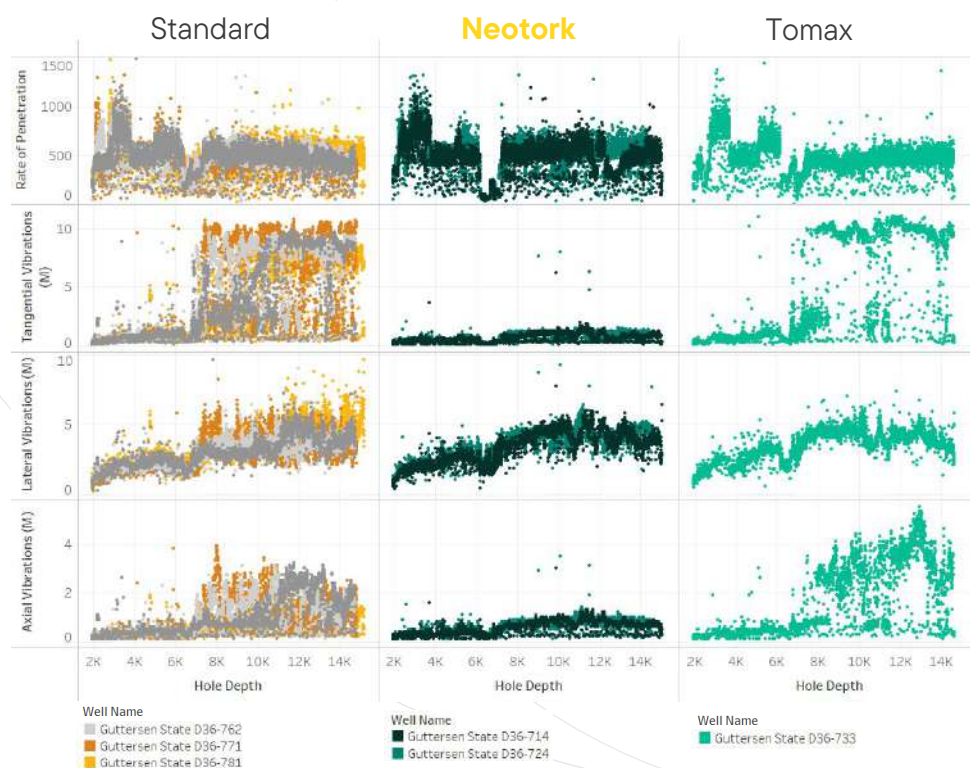


OXY 7" neotork vs 7" TOMAX

US – Texas, Delaware



Drilling dynamics comparison



90%

Vibration Reduction

20%

ROP Improvement

150%

BHA Efficiency

SPE paper

neotork (tool A) versus TOMAX (tool B)

Conclusions

“This trial was successful in showing that high frequency tangential vibration can be successfully mitigated.”

- Well one and two, using Tool A, showed a significant reduction in tangential vibration magnitudes across the entire lateral length. Offsets wells commonly showed L4-L5 and L6 vibration. Both wells with this tool were primarily at <L3 severity
- 37 Level 4-5 vs 2000 in off-set wells
- L6 magnitudes are only present with tool B (TOMAX)

		IADC/SPE International Drilling Conference, March 8-10 th , 2022, Galveston, Texas	
		SPE-208896-MS	
		Application Of Vibration Mitigation Technology To Improve Performance And Reliability In The D.J. Basin	
Please fill in your author name(s) and company affiliation.			
Given Name	Middle Name	Surname	Company
Christopher		Marland	Chevron
Duane		Gonzalez	Chevron
James		Koy	Chevron
Abstract Vibration and drilling dysfunction continue to be a limiting factor to drilling performance. Minimizing vibration lowers the failure rate of downhole tools from short term catastrophic failures to longer term fatigue failures. Minimizing dysfunction reduces bit and BHA damage which reduces bit trips and improves performance as optimal operating parameters can be applied for longer. In onshore operations, short well cycle times strain logistics and asset availability. Rerunning assets, such as rotary steerable and MWD tools, is a significant cost saving to both the operator and service company. Mitigating vibration can be achieved through BHA design, bit design, and manipulating drilling parameters. However, these can be uneconomical, because they require a lot of trial and error, along with, multiple combinations and iterations. Using downhole vibration mitigation tools can be a more cost-effective method of reducing vibration while achieving economic drilling performance. This example from the D.J. Basin, Colorado, used two different downhole vibration mitigation tools to try and reduce the magnitude of vibration, specifically, tangential vibration, which posed a higher risk of failure to the directional drilling tools. Four wells on a single pad were selected for the trial to ensure similar geology and well design. Four wells that had comparable geological and well profiles, were selected as offsets. The aim was to reduce vibration and successfully rerun the directional drilling tool on at least two consecutive wells, while maintaining the offset well's ROP. The paper will outline the design of the two technologies and the results from each well. Changes in vibration magnitude will be explained and the effect on ROP. The paper will compare the four trial wells to the four offsets and contrast the performance of the two tools in the trial wells. The paper will also discuss mechanisms unaffected by the technology and how that provided insight into the interrelationship of vibration mechanisms.			

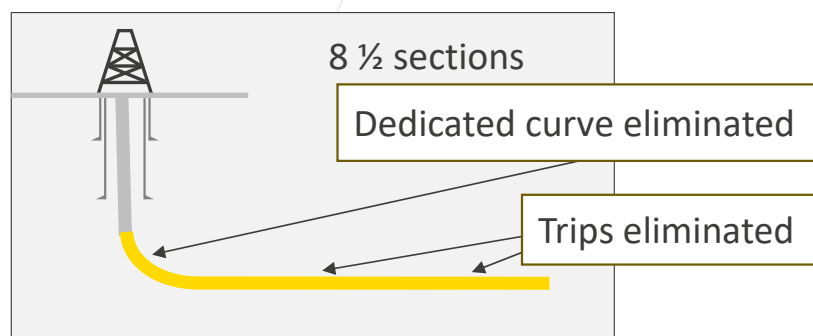
Axial, Lateral and Tangential Vibration					
Measurement Source	Unit				
Severity Level		<L3	L3	L4 to L5	>L6
Directional Drilling Tool	gRMS	$x < 5$	$5 \leq x \leq 8$	$8 \leq x \leq 15$	$x > 15$

Table 1: Vibration Severity Table as Provided by the Directional Drilling Vendor

Neotork

Tomax

Single Curve/Lateral runs – neotork impact in DJ Basin



Results – Since introducing neotork:

All types of damaging shocks and vibrations have been eliminated, helping our DJ Basin client achieve new milestones:

1. New ROP ceiling (average): 573ft/hr
2. Set a drilling record: 13,750ft over a 24hr period.
3. Limiting factor: Hole cleaning

Chevron has now drilled over 4,000,000 ft with neotork

neotork presentation

Downhole results

Conclusion



Value creation & technology benefits

- Lower cost per foot
- Delivering increased ROP
- Reducing vibration generation at source
- Increased Founder Point & drilling efficiency
- Extending bit and BHA component life
- No safety or lost time incidents

Thank you for listening

neotork