



# **Reducing Days** on Location and Time to First Oil

SIMULTANEOUS FRACTURING OPERATIONS



Production Enhancement

## AMPLIFY OPERATIONS

5,000+ LATERAL FEET Completed in 24 Hours

180 MM+ POUNDS OF PROPPAN1 Pumped Per Month

MORE STAGES. LESS TIME

AVERAGING 160 RPM

STIMULATING

3,600 FEET/DAY

PUMPING 450+ HOURS/MONTH

COMPLETING **50% MORE** STAGES/MONTH

REDUCING DAYS ON LOCATION **BY 50%** 

# EXPERIENCE BY THE NUMBERS

Simultaneously fracturing **SINCE 2016** 

MULTIPLE BASINS

Completed 15.000+ STAGES and counting

Operators are always looking for new ways to gain efficiencies at the surface. Take the zipper frac, for example. Using a single crew to alternate wireline and pumping operations between two wells resulted in more pumping hours per day. However, it wasn't long before the industry wanted to achieve more.

Our Halliburton simultaneous fracturing (simul-frac) operations, which also utilize a single crew, can help you achieve over double the gains in lateral footage, in less time, compared to zipper-frac operations.

During simul-frac operations, efficiencies are amplified to significantly reduce days on location by maximizing gains in lateral footage, as well as gains in savings - allowing you to realize first oil faster, while making a significant return on your investment.

## **ELIMINATING IDLE WHITE SPACE**

Instead of shaving off a few minutes here and there with zipper-frac operations, simul-frac technology enables you to complete more stages in less time - thus allowing you to reduce time on location.

When performing zipper-frac operations on a four-well pad, you are essentially stimulating two wells, while the other two sit idle. Simul-frac operations eliminate this idle white space by continuously making forward progress across all four wells. During a simul-frac operation, you are pumping down two wells, while perforating the other two, allowing you to complete more lateral footage in the same amount of time compared to current zipper-frac operations.

HOURS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DAYS	0.04	0.08	0.13	0.17	0.21	0.25	0.29	0.33	0.38	0.42	0.46	0.50	0.54	0.58	0.63
A	PERF STAGE 1		STAGE 1					ERF STAGE 2		C STAGE 2					
WELL		PERF	STAGE 1	FRAC STA	GE 1				PER	F STAGE 2	FRAC STA	GE 2			
WELL C				PERF STA	GE 1	FRAC STAGE 1					PERF STA		FRAC STAGE 2		
WELL						PERF STAGE 1		RAC STAGE 1					PERF STAGE 2		
WELL	PERF STAGE 1		FRAC STA							PERF STAGE 3		FRAC S			STAGE 4
	PERF STAGE 1		FRAC STA	GE 1	PERF	PERF STAGE 2									
WELL C	WELL C		PERF STAGE 1		FRAC	FRAC STAGE 1			FRAC STAGE 2		2				
WELL				PERF STAGE 1		FRAC STAGE 1									

## **ACHIEVING PEAK PERFORMANCE**

While simultaneous fracturing can double your gains without the need for an additional fleet on location, it takes experience and endurance to consistently achieve peak performance – and not all fleets are created equal. If operations stutter due to logistical challenges, equipment maintenance, or other poor planning and execution choices, their systematic value falls apart.

HSF exposure

ExpressSand<sup>™</sup> Delivery System

Containerized sand delivery for maximum efficiency and reduced XHD Q10<sup>™</sup> Pump

ACHIEVE THE EFFICIENCY 2 ZIPPER FRACS DELIVER WITH ONLY ONE SIMUL-FRAC CREW

ExpressKinect<sup>®</sup> Manifold Single pump connection for maximum efficiency and safety

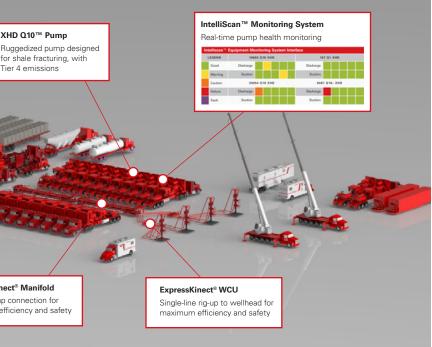
### **Fleet Velocity and Endurance**

Our fracturing equipment is known for its horsepower and endurance, which are critical when you are pumping 160 barrels per minute and hundreds of stages per month. From our ruggedized XHD Q10<sup>™</sup> pump designed for shale fracturing, to the ExpressKinect<sup>®</sup> manifold that offers a single-pump connection, the Halliburton fleet offers maximum efficiency and safety across operations.

When managing an operation of this magnitude, there is no room for non-productive time. With multi-well pads, zipper manifolds are often used to reduce cycle times between stages. However, these zipper manifolds add significant cost, equipment, and complexity to operations. The Halliburton ExpressKinect wellhead connection unit (WCU) drastically reduces rig-up time and complexity, resulting in a more efficient and safe operation. The ExpressKinect WCU eliminates up to 85 percent of the high-pressure iron between the manifold trailer and the wellhead. This unit also eliminates the need for zipper manifolds by providing a single-line rig-up capable of reaching multiple wells and handling 120 bpm at 15,000 psi. This means that wellhead exchanges are executed in less than five minutes, thus reducing rig-up complexity and improving cycle times to drive increased efficiency.

#### A Robust Control System

Managing activity and monitoring data are also critical to effectively keep up with the pace of these operations. Our control system has the flexibility to monitor valve and



pump health, along with volume of sand, stages completed, pumping hours, and lateral feet achieved across the entire simul-frac operation – all from a single tech command center.

### Simplified Sand Supply

With an operation of this magnitude, you can't afford to be waiting on sand. As your trusted provider of fracture services, and as the largest buyer of frac sand in the marketplace, we can ensure that a constant sand supply and successful last-mile delivery will be our priority.

By leveraging the size and scale of our supplier network, which includes multiple sources in each basin, you'll have inventory buffers nearby to avoid unexpected shortages or disruptions in supply. We also provide streamlined storage and delivery. With the ExpressSand<sup>™</sup> delivery system, Halliburton Sand and Logistics Services offers faster offloading, reduced wellsite traffic congestion, and higher on-location storage. In addition to driving efficiencies through the supply chain, this streamlined proppant management system drastically improves health, safety, and environmental (HSE) management and equipment reliability at the wellsite. Compared to traditional pneumatic trailers, which take 45 minutes to an hour to unload, the ExpressSand system was designed to reduce costly unloading times from hours to minutes. By utilizing gravity to transfer proppant directly into the blender, dust generation from transfer belts and pneumatic transfer is eliminated drastically reducing HSE exposure on location.

If you want to reduce days on location and time to first oil, Halliburton simul-frac operations can help you stimulate more stages across multiple wells at the same time, using a single fleet.

Contact us today or visit us online to learn more about simul-frac operations.

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