

Comparison of HTOT with technology using hydrofracturing

For HTOT, using after Fracking				
1. Fracking	Tight oil only	Tight oil ratio	in average 20% of the whole hydrocarbon potential	
		Fracking recovery efficiency	9%	
	Available/extracted tight oil:		$0.09 \times 20\% = 1.8\%$	
	Kerogen	Residual oil-generation potential of kerogen	70%	
		Rate of kerogen conversion in the productive layer (not total kerogen is converted, only its part)	70%	
		HTOT recovery efficiency	45%	
Total extracted synthetic oil from the kerogen content of the layer (Recovery Factor):		$0.7 * 0.7 * 0.45 = 22\%$		
2. HTOT	Kerogen + residual tight oil	Kerogen content	80%	
		Residual tight oil	$20 - 1.8 = 18.2\%$	
		Total available oil	$80 + 18.2 = 98.2\%$	
	HTOT's production:		$0.22 \times 98.2\% = 21.6\%$	
Increasing factor via HTOT: $21.6 / 1.8\% = 12.0$ i.e.: using HTOT, the amount of the recoverable shale oil will increase by about 12 times (by one order of magnitude).				

For direct HTOT, using without Fracking			
2. HTOT	Kerogen + tight oil	Kerogen content	80%
		Tight oil	20%
		Total available oil	100%
	HTOT's production:		$0.22 \times 100\% = 22\%$
Increasing factor via HTOT: $22 / 1.8\% = 12.22$ i.e.: using HTOT, the amount of the recoverable shale oil will increase by about 12 times (by one order of magnitude).			

From the above calculations, the following three conclusions can be drawn:

1. The high efficiency of HTOT, compared to the inefficiency of the fracking technology;
2. After fracking, it remains more than 98% of the original hydrocarbon potential;
3. The amount of the extractable oil from the leased shale oil area will be increased by an order of magnitude compared to the fracking by using HTOT, **which means that the value/price of the leased area will also be increased by one order of magnitude.** This is an additional business opportunity: investing in shale oil areas before our HTOT will become a well-known technology.