

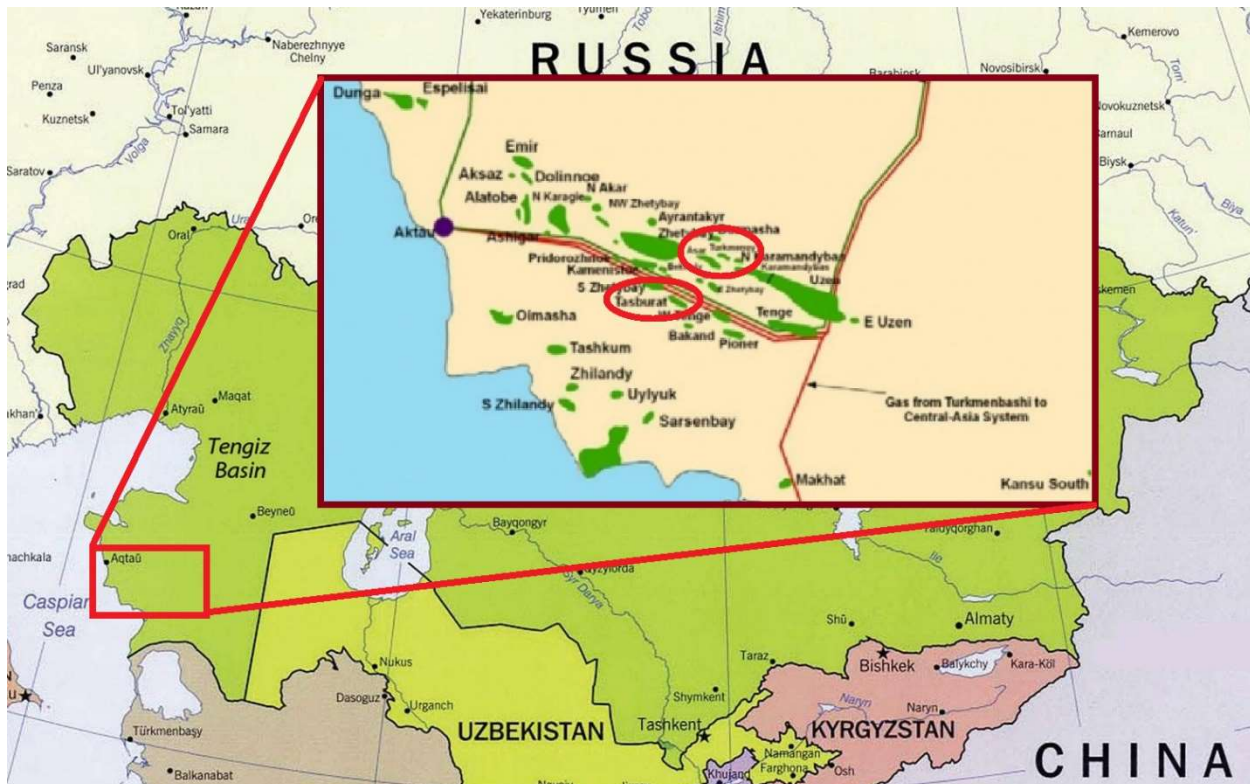


PARALAX Trial

3 wells: Ak-203, Tur-33, Tur-48

Date: January 19, 2020

Tasbulat Oil Corporation LLP is a subsidiary of OMV Petrom, operating fields Tasbulat, Aktas and Turkmenoi in Kazakhstan. Rusana Munai Servis LLP proposed PARALAX technology for field trial at these fields.



Final candidate wells selected for trial are Aktas-203, Turkmenoi-33 and Turkmenoi-48. Objective is to control deposition of wax in the formation and tubing.

PARALAX is a chemical technology applied in order to control/prevent wax and asphaltene deposition. It multifunctional, what it does is it shortens heavy hydrocarbon chains and leaves repellent coating behind. As a result, solid deposition liquefies and washes away, whereas wax-free production time (time between dewaxing cleaning operations) is extended and oil production increases.

When circulated in the tubing during treatment, PARALAX leaves waxophobic (wax and asphaltene repelling) coating that prevents any further deposition for few months

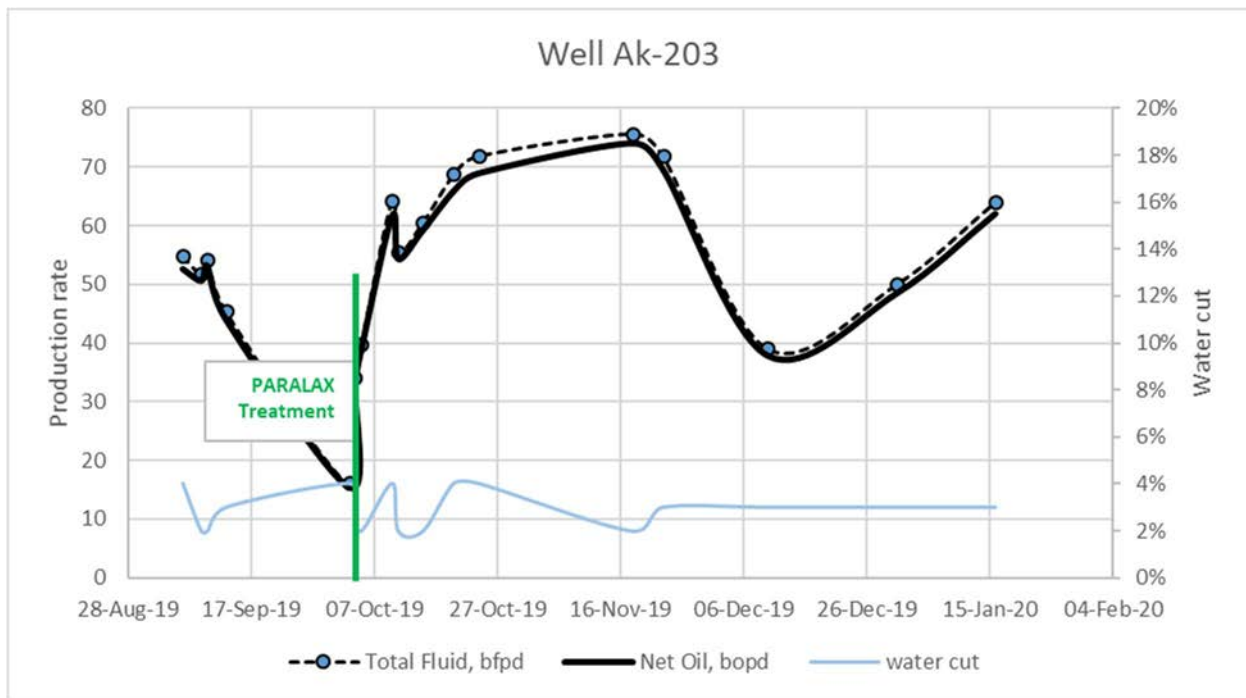
When squeezed into the formation during treatment, PARALAX coating improves relative permeability to oil which results in higher flows in formation pores and lower overall water cut.

PARALAX acts on long-chain hydrocarbons by shortening their lengths this leads to liquefaction of wax and asphaltenes. PARALAX acts as a long term catalyst to keep these components of wax, asphaltene, and tar buildup as a liquid hydrocarbons and returns them back into the liquid oil-phase of crude oil.



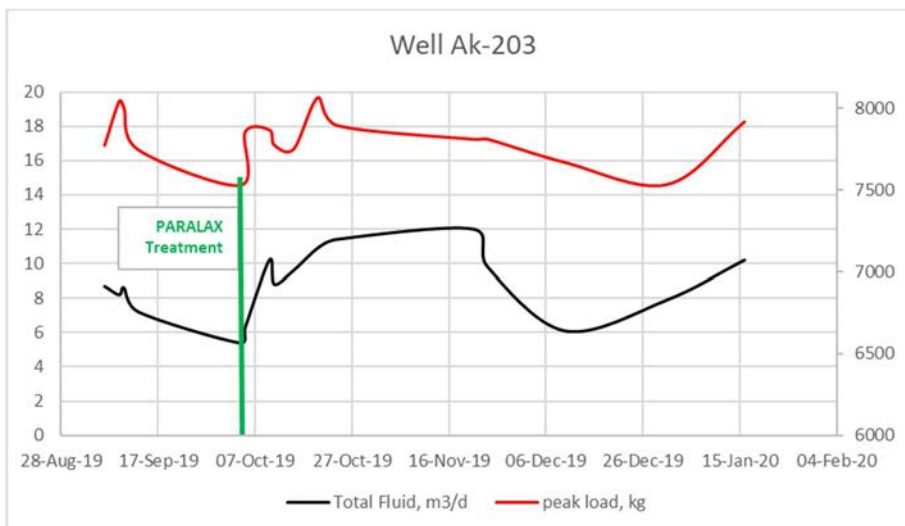
Aktas-203

Well is driven by the sucker rod pump. Treatment method: Circulation of 10m³ of PARALAX-Treated Oil (PTO) with 200L of PARALAX. Producing interval completed with horizontal section.



This well was chosen for PARALAX treatment because of sudden drop in production although it was producing fairly low water oil. After the treatment the well so far shows production going up.

Rod loads



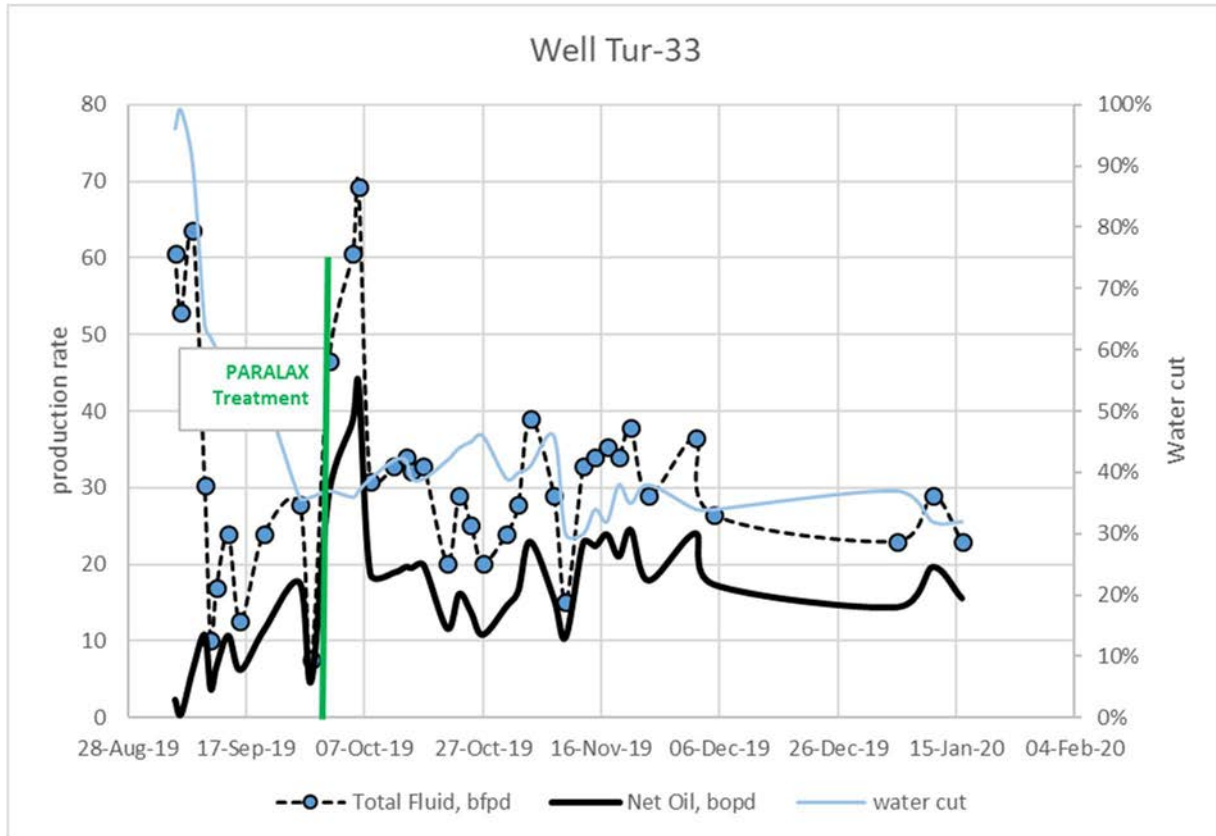
There is an obvious correlation between rod loads and production rate, which is fluid loading.

No signs of friction induced loading

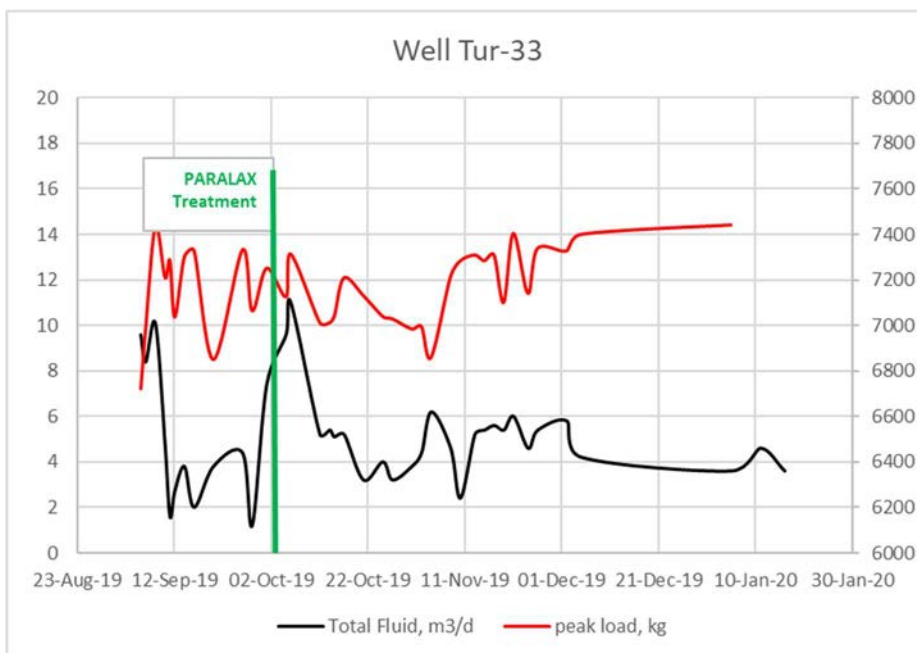


Turkmenoi-33

Sucker rod pump driven well. Well is vertical with tubing end and the pump below perforations. Treatment method applied is PTO squeeze into the formation 10m³ of PTO with 250L of PARALAX. This well was selected because it was underperforming after workover (early September 2019) with unusually low fluid level in the annulus. It means that formation is plugged.



Rod loads



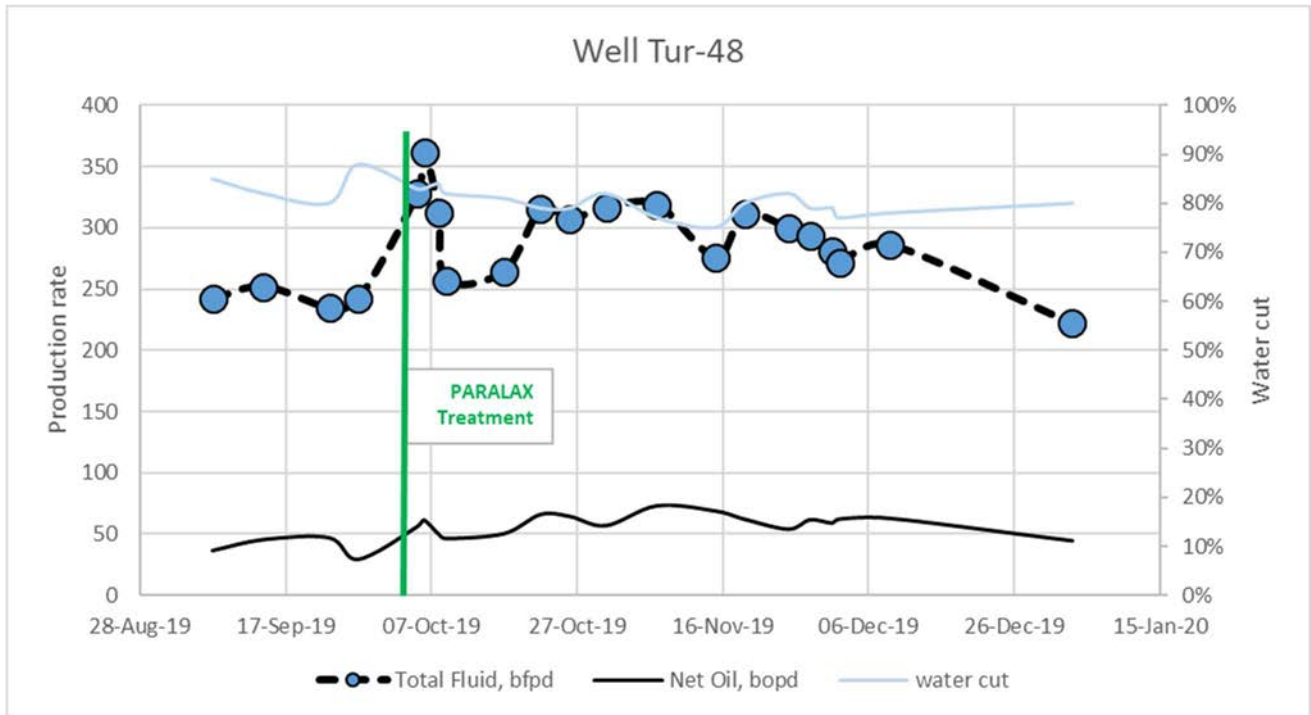
There is an obvious correlation between rod loads and production rate, which is fluid loading.

No signs of friction induced loading



Turkmenoi-48

This is high rate, high water cut well, producing with the ESP. Treatment method is squeeze 10m³ of PTO with 250L of PARALAX.



Since this is the ESP driven well, there is no rod load data.

Conclusion:

After 3 months post-PARALAX the 3 wells treatment results being monitored. Results show that all wells are performing as expected with PARALAX stimulating oil production and stopping wax precipitation which improves performance of the wells.

Wells demonstrate production increase, other production parameters below in the table. Figures in the table are the averages as pre-job, and post-job values.

Table 1. Average values of production parameters.

Well:	Ak-203			Tur-33			Tur-48		
	before	after	change	before	after	change	before	after	change
Rod Load, kg:	7779	7777	-0.02%	7163	7178	0.2%	Not applicable		
Fluid Level, m:	133	160	20.3%	73	95	30.1%	Not available		
BHP, bar:	Not measured						39.4	34.2	-13%
Production, bopd	44.2	58.4	32%	9.3	20.3	118%	39.4	59.6	51%
Incremental Production, bopd	14.2			11			20.2		

With the production increase combined from all 3 wells you get an additional 45 bopd. Over a 100 day period you get an additional 4500 barrels of oil from 3 wells!