

Daly Unit #15
2018 Annual EOR Report

Executive Summary

In 2018 oil production in the Daly Unit #15 averaged 39.6 m³/d (249 bbl/d) totaling 14.4 e³m³ (90.7 mbbl). Annual production had a massive incline of 188.7% from 2017 to 2018, this is using the yearly average production rate, using the production from December 2017 to December 2018 there was an incline of 138.3%. By the end of 2018 cumulative oil production from the Daly Unit #15 was 63.2 e³m³ (397.4 mbbl). The unit is currently still under primary production and, as of yet, has had no water injected into the producing formations.

In December 2018 there were 10 producing oil wells fully within the unit and four wells that cross unit boundaries, and no active water injectors in the unit. In 2017, two wells were drilled within the unit. In 2018, four crossover wells were drilled in the unit.

Discussion

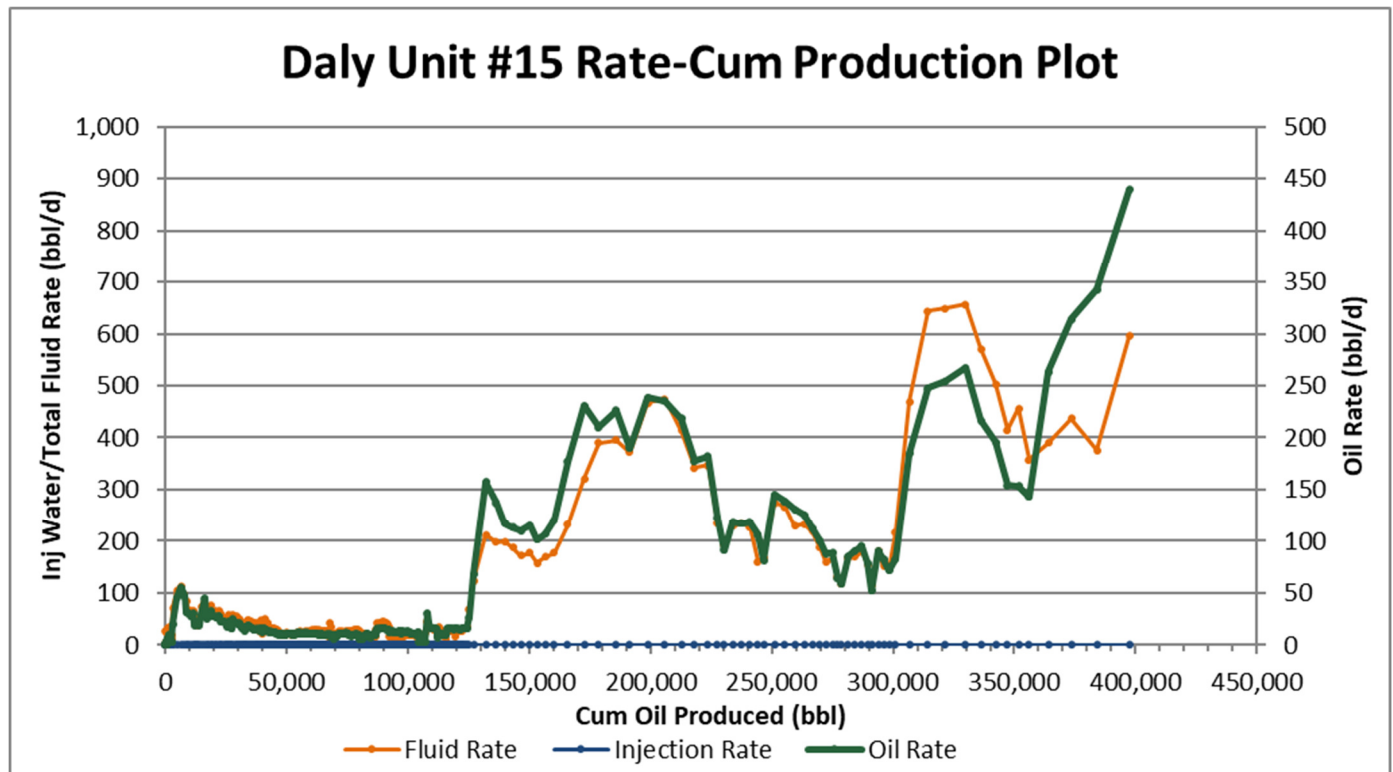
The Daly Unit #15 was created as a unit in 2018, with the intention of further development through the implementation of a waterflood scheme.

In 1956, 3 vertical wells were drilled and all were left dry and abandoned. In 1984, a vertical well was drilled and first produced in 1985. In the following years 3 additional vertical wells were drilled and produced. In 2010, a relatively unsuccessful open hole horizontal well was drilled. In the following years Corex was active drilling horizontal wells and completing with hydraulic fractures, resulting in much more successful wells. The intention is to progress to secondary recovery methods after a period of primary production. This unit has a low recovery factor and further development through waterflood will increase the recovery. In 2018, the producing WOR was $0.4 \text{ m}^3/\text{m}^3$.

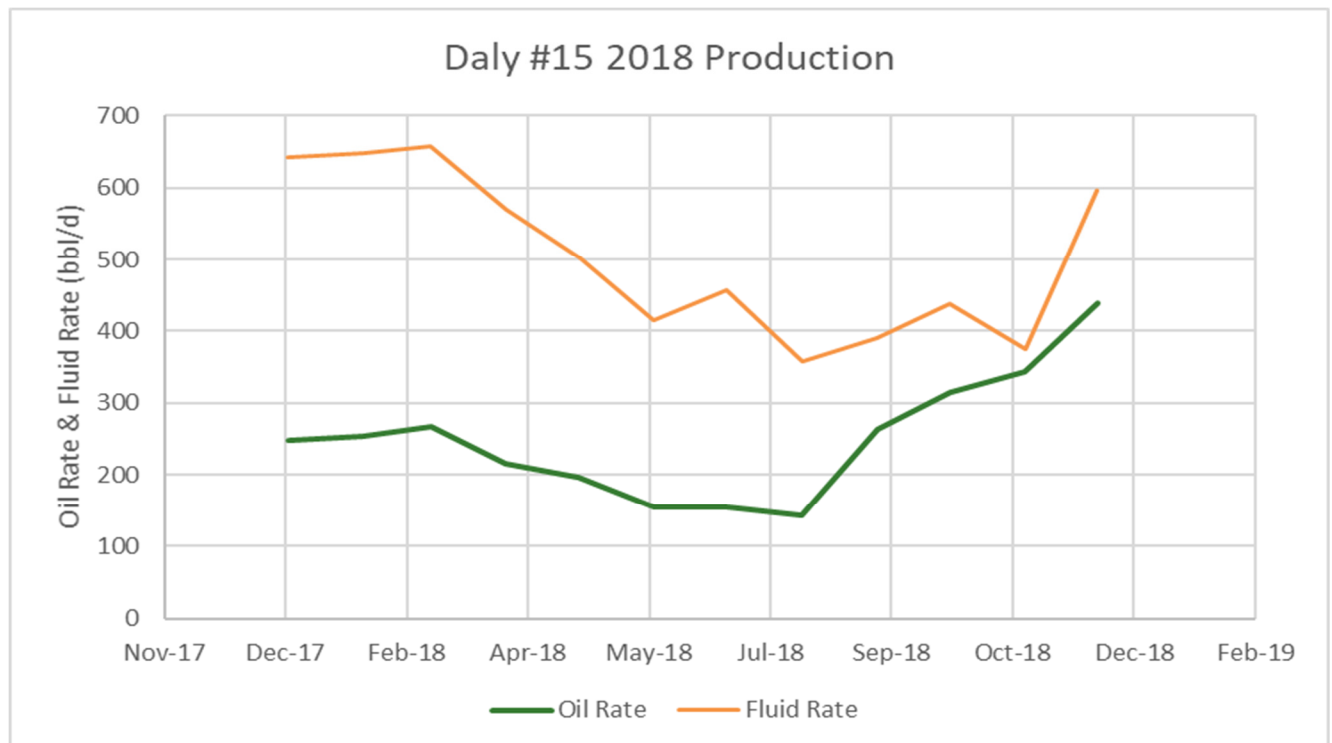
Significant events in 2018 are as follows:

- September 2018, drill the 102/07-09-010-28W1/00 crossover horizontal well in the Daly.
- September 2018, drill the 103/07-09-010-28W1/00 crossover horizontal well in the Daly.
- October 2018, drilled the 103/12-10-010-28W1/00 crossover well in the Daly formation.
- October 2018, drill the 104/12-10-010-28W1/00 crossover horizontal well in the Daly.

Daly Unit #15 – Rate vs Cum Oil Production



Daly Unit #15 – Rate vs Time



2018 Reservoir Pressure Surveys

Unit	UWI	License	Test Type	Date of Pressure	Duration of SI (days)	Extrapolated Pressure (kPaa)
Daly #15	102/12-10-010-28W1/00	7210	Flow & BU	2014-03-17	65	2,348

Only one pressure has been taken in this unit since the history of its inception. This is from a known low pressure horizontal well in the Crinoid member. With the performance of the remainder of the wells in the other Lodgepole members, the pressures in the other members would be closer to the initial reservoir pressure. It is estimated that the initial reservoir pressure is around 7,500 kPa and the bubble point around 2,000 kPa. With the recent rapid development in the unit and the inter well spacing the reservoir pressure is likely dropping significantly. When effects of a decline in pressure is seen, the implementation of a waterflood will be advantageous. Due to the nature of the rock in this area and the lower permeability recording accurate pressures are difficult.

2018 Well Servicing

UWI	Unit	Licence	Operation	Date	Objective
104/12-10-010-28W1/00	DU#15	11064	Initial Completion	2018-11-03	DALY COMPLETION
103/12-10-010-28W1/00	DU#15	11063	Initial Completion	2018-11-03	DALY COMPLETION