

Daly Unit No. 15
2020 Annual EOR Report

Executive Summary

In 2020, oil production in Daly Unit No. 15 averaged 46.4 m³/d (292 bbl/d) totaling 17.0 e³m³ (106.7 mbbbl). Annual production declined by 21.4% from 2019 to 2020, using the yearly averages. Comparing December 2019 to December 2020 the production declined by 46.9%. By the end of 2020 cumulative oil production from the Daly Unit No. 15 was 101.6 e³m³ (639.3 mbbbl). The unit is currently still under primary production and has had no water injected into the producing formations.

In December 2020 there were 11 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. In 2019, one well was drilled within the unit. In 2020, no wells were drilled in the unit.

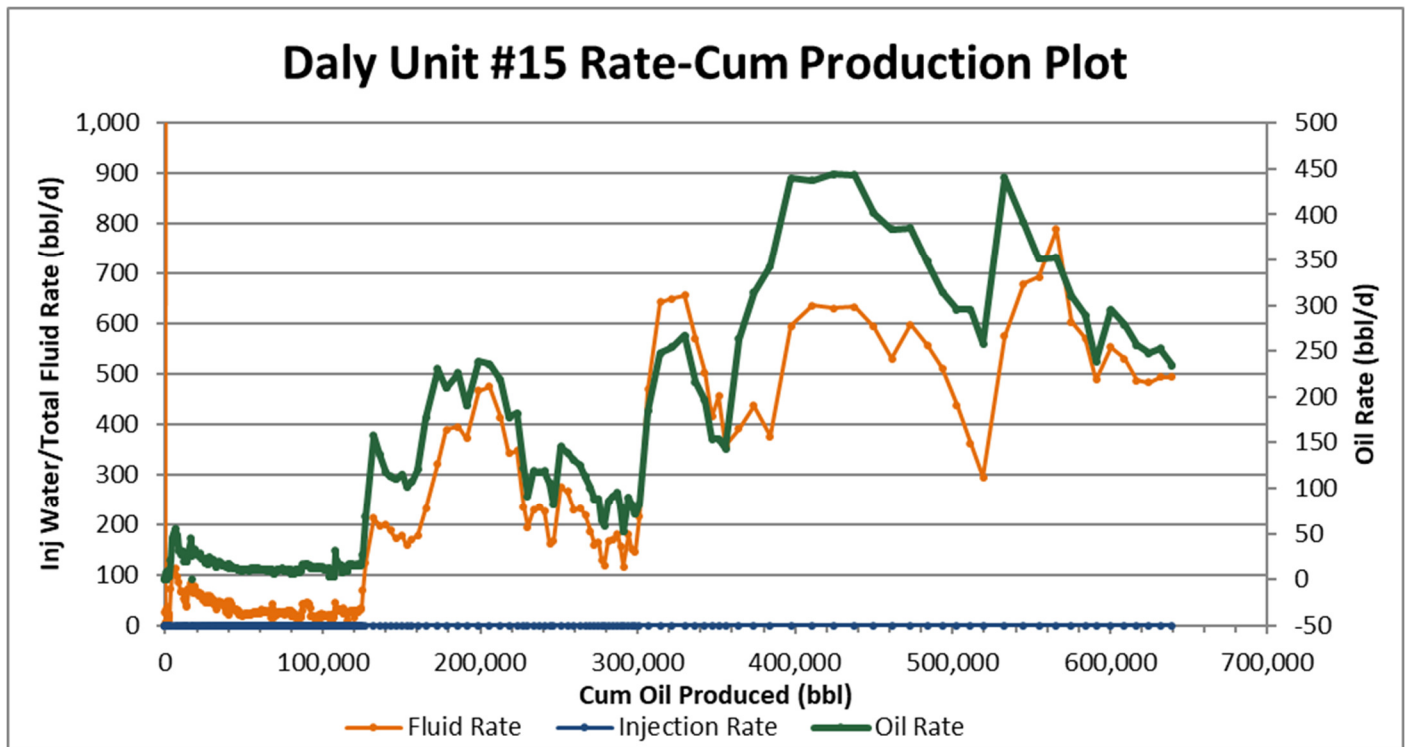
Discussion

The Daly Unit No. 15 was created as a unit in 2018, with the intention of further development through the implementation of a waterflood scheme.

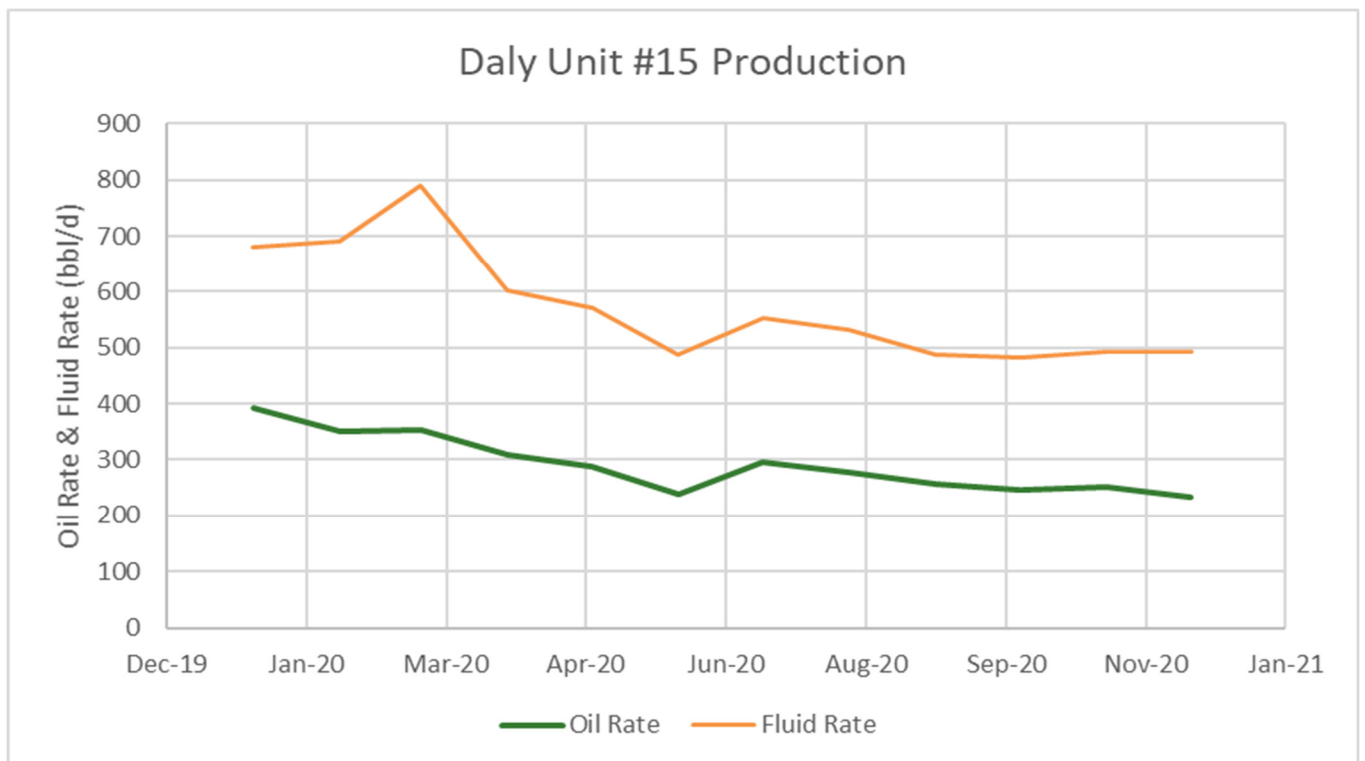
In 1956, 3 vertical wells were drilled and all were left dry and abandoned. In 1984, a vertical well was drilled and first produced in 1985. In the following years three additional vertical wells were drilled and produced. In 2010, a relatively unsuccessful open hole horizontal well was drilled. In the 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 2020, the producing WOR was $0.96 \text{ m}^3/\text{m}^3$.

There were no significant events to report in 2020.

Daly Unit #15 – Rate vs Cum Oil Production



Daly Unit #15 – Rate vs Time



2020 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.

2020 Well Servicing

UWI	Unit	Licence	Start Date	Job Category	Primary Job Type
102/15-10-010-28W1/00	DU15	10149	2020-02-19 7:30	Completion/Workover	Pump Repair
102/15-10-010-28W1/00	DU15	10149	2020-11-30 7:30	Completion/Workover	Pump Repair
COMPRESSION INSTALL - 16-09-10-28	DU#15	FF20DAL00 4	2020-10-16 7:30	Facilities	Install Compressor
104/12-09-010-28W1/00	DU15	10792	2020-02-14 7:30	Completion/Workover	Pump Repair