

Ewart Unit #15
2019 Annual EOR Report

Executive Summary

In 2019 oil production in Ewart Unit #15 averaged 28.5 m³/d (179.6 bbl/d) totaling 10.4 e³m³ (65.5 mbbbl). Annual production declined 38% from 2018 to 2019 using the average yearly production, however using the production from December 2018 to December 2019 the production declined by 28.9%. By the end of 2019 cumulative oil production from the Ewart Unit #15 was 52.6 e³m³ (331 mbbbl). The unit is currently still under primary production and has had no water injected into the producing formations.

In December 2019 there were 10 producing oil wells and no active water injectors in the unit, all the produced water is disposed. In 2019, there was no significant activity.

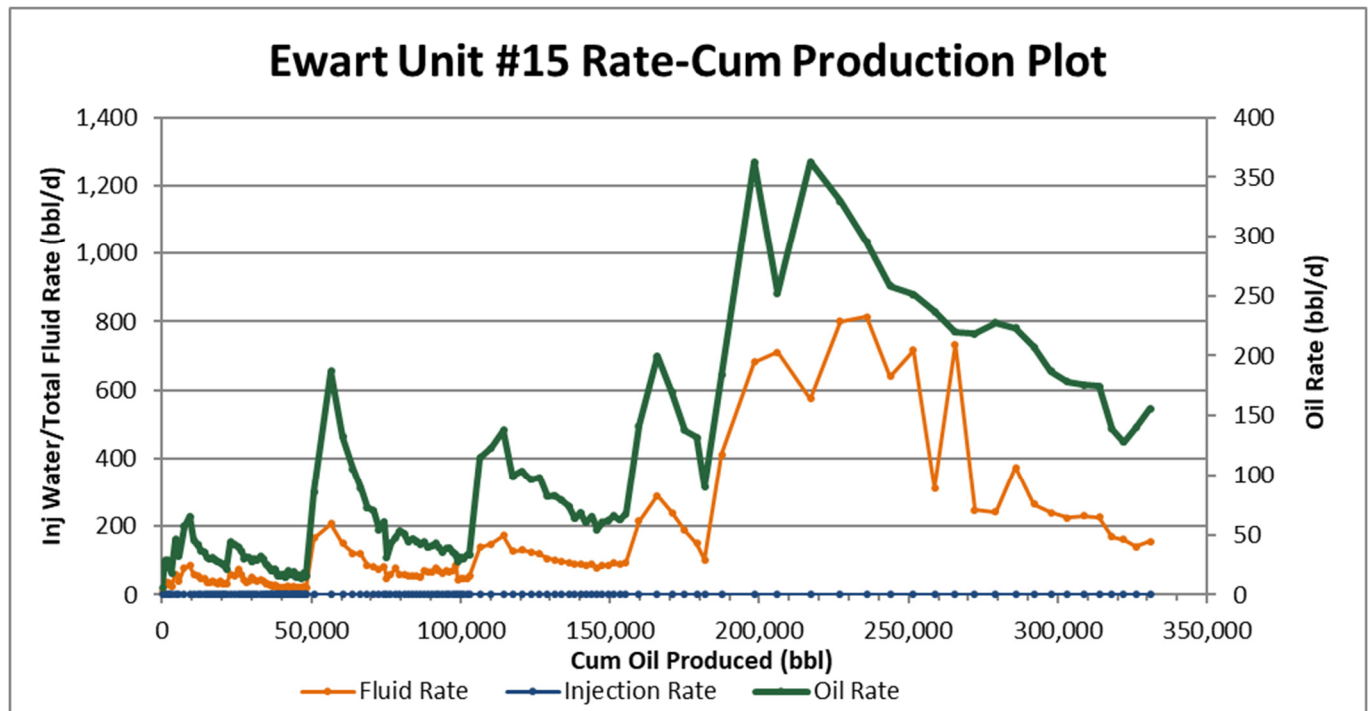
Discussion

The Ewart Unit #15 was created as a unit in 2019, with the intention of further development through the implementation of a waterflood scheme.

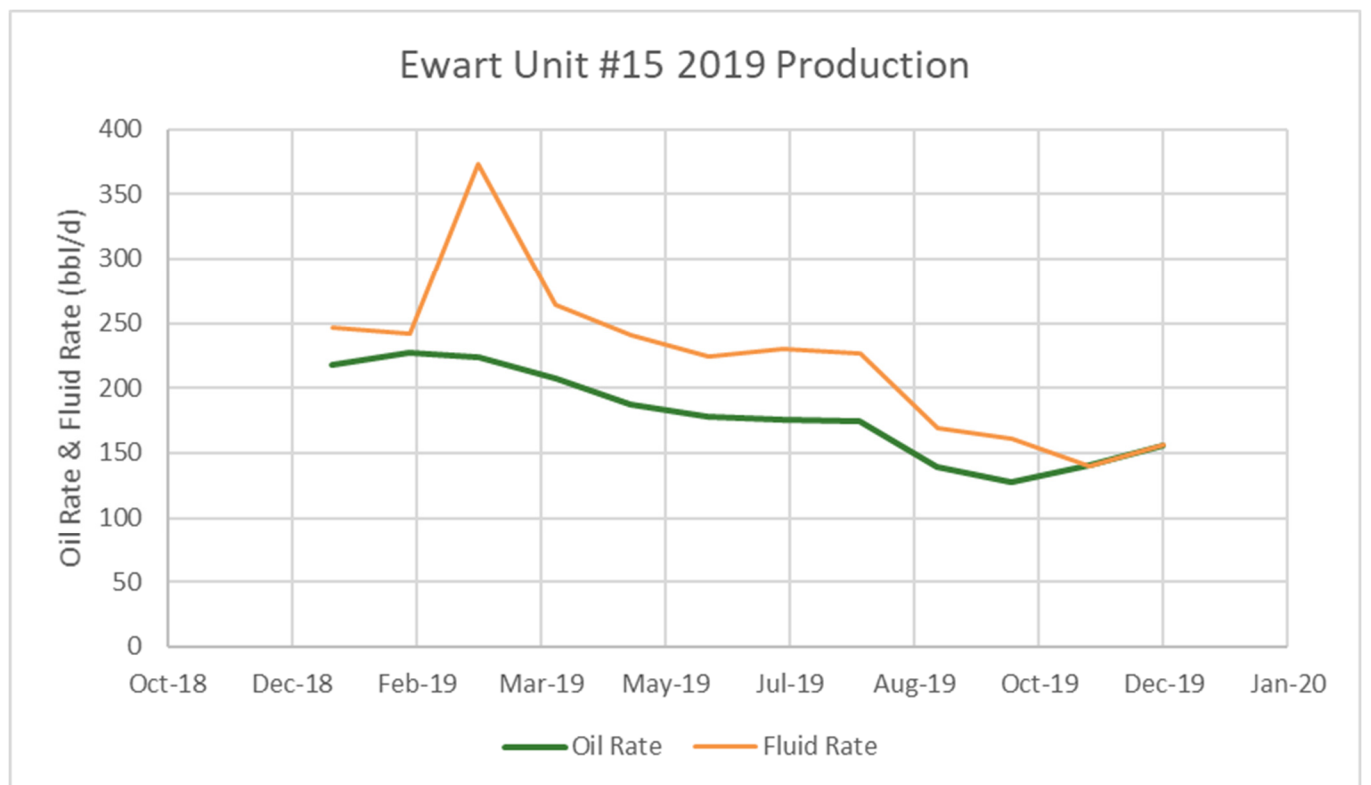
In 2008, four vertical producers were drilled and commingled with the Bakken formation. In 2009, another vertical well was drilled and commingled with the Bakken formation. The first successful horizontal well was drilled in the unit in 2013, and since then the rest of the unit acreage has been drilled with horizontal 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 December 2019, the producing WOR was 0.0 m³/m³.

There were no significant events in 2019.

Ewart Unit #15 – Rate vs Cum Oil Production



Ewart Unit #15 – Rate vs Time



2019 Reservoir Pressure Surveys

No pressures have been taken in this unit since the history of its inception. It is estimated that the initial reservoir pressure is around 8,000 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.

2019 Well Servicing

UWI	Unit	Licence	Start Date	Operation	Objective
100/14-33-008-28W1/00	EU#15	6770	2019-06-11	Completion/Workover	Pump Repair
100/16-33-008-28W1/00	EU#15	9199	2019-01-26	Completion/Workover	Pump Repair
100/16-33-008-28W1/00	EU#15	9199	2019-09-18	Facilities	Cathodic
102/16-33-008-28W1/00	EU#15	10423	2019-03-10	Completion/Workover	Pump Repair
100/10-33-008-28W1/00 & 02 Commingled	EU#15	7112	2019-01-13	Completion/Workover	Pump Repair
102/09-33-008-28W1/00	EU#15	10734	2019-10-15	Completion/Workover	Pump Repair
102/09-33-008-28W1/00	EU#15	10734	2019-11-17	Completion/Workover	Pump Repair
103/16-33-008-28W1/00	EU#15	10686	2019-11-18	Completion/Workover	Pump Repair