

Virden Roselea Unit #4
2019 Annual EOR Report

Executive Summary

In 2019 oil production in Virden Roselea Unit #4 (VRU #4) averaged 7.1 m³/d (45 bbl/d) totaling 2.6 e³m³ (16.3 mbbl). Annual production declined 44.8% from 2018 to 2019, using the yearly average, using December 2018 to December 2019 the decline is 67.1%. By the end of 2019 cumulative oil production from the VRU #4 was 31.9 e³m³ (200.5 mbbl). The unit is currently still under primary production and has had no water injected into the producing formations.

In December 2019 there were 5 producing oil wells and no active water injectors in the unit. In 2017, two wells were drilled within the unit. Corex Resources filed a unit application for Virden Roselea Unit #4 in 2017, thereby creating this area as a unit. In 2018, a re-entry on an existing horizontal well was performed. In 2019, there was no significant activity.

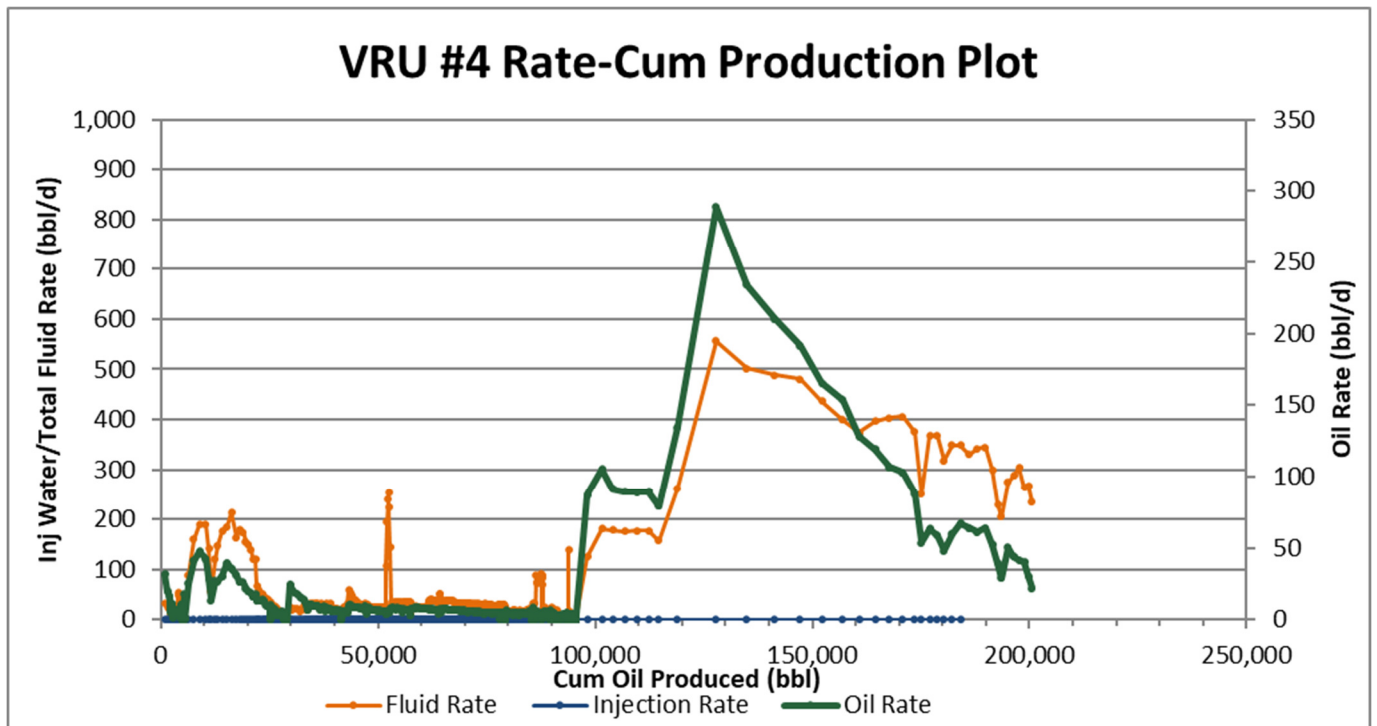
Discussion

The VRU #4 was created as a unit in 2018, with the intention of further development through the implementation of a waterflood scheme.

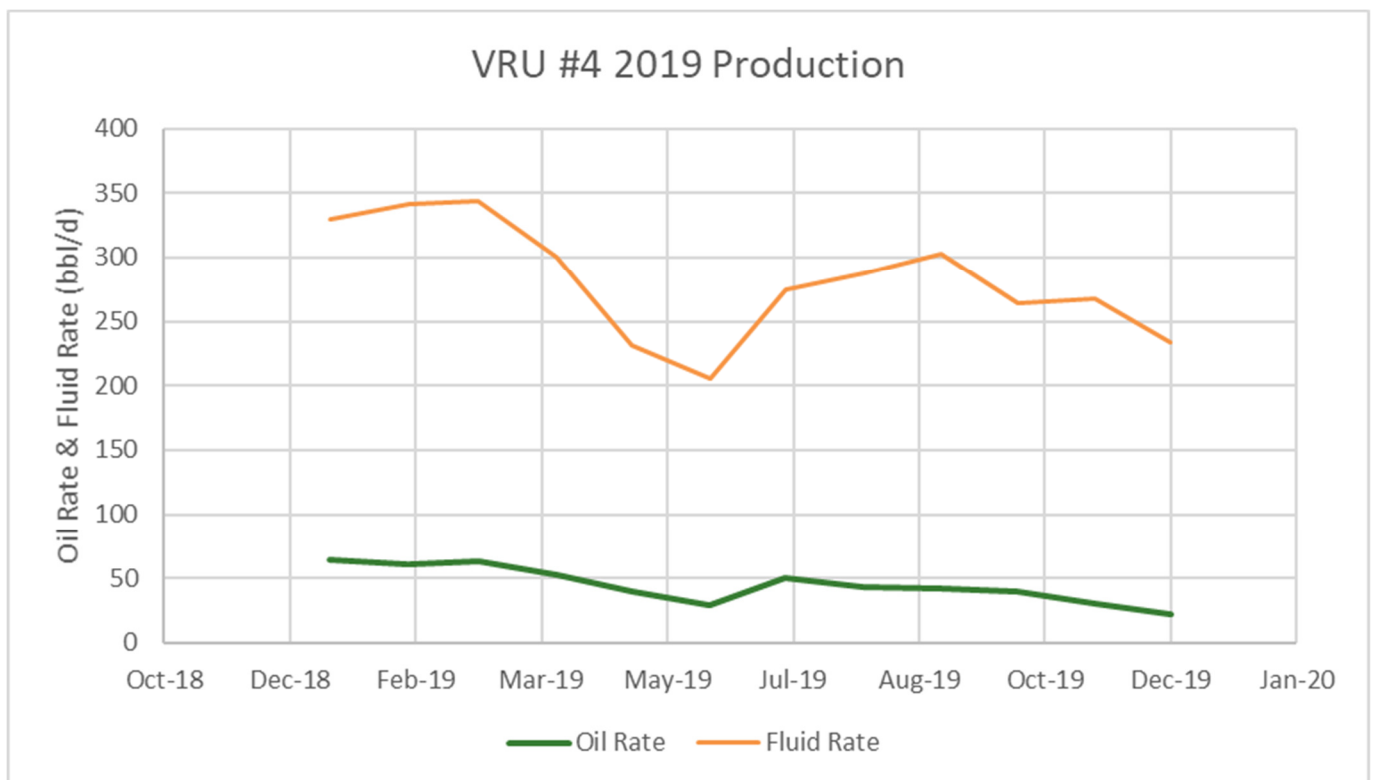
Prior to the operatorship transferring to Corex Resources very little additional development had taken place in the unit. Four vertical producers were drilled, resulting in minimal recovery. In 2016, a very successful horizontal Scallion well was drilled in the unit, followed by an additional two wells in 2017. 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 2019, the producing WOR was $9.6 \text{ m}^3/\text{m}^3$ an increase over last year.

There were no significant events in 2019.

VRU #4 – Rate vs Cum Oil Production



VRU #4 – Rate vs Time



2019 Reservoir Pressure Surveys

Unit	UWI	License	Test Type	Date of Pressure	Duration of SI (days)	Datum BHP (kPaa)
VRU #4	103/03-24-010-26W1/00	10673	BH BU	2019-06-20	7	2,435

In 2019, one pressure was taken within the unit at around ~2,500 kPa. In 2018, one pressure was taken within the unit at around ~3,100 kPa. The pressure has steadily decreased over time with production and is now quite low. From the pressures recorded in 2017, the average reservoir pressure was around 5,000 kPa. This is lower than the estimated initial reservoir pressure of 6,500 kPa. With further depletion due to production the reservoir pressure has noticeably decreased. This is also seen in production results with decreasing fluid production. With further production, the pressure will deplete even further, at which point it will be deemed that a conversion to injection is necessary. Currently, the total fluid production continues to drop, indicating that water injection will be needed at some point.

2019 Well Servicing

UWI	Unit	Licence	Start Date	Operation	Objective
102/03-24-010-26W1/00	VRU#4	10672	2019-06-17	Completion/Workover	Pump Repair
103/04-24-010-26W1/00	VRU#4	11389	2019-09-24	Construction	Construction
103/04-24-010-26W1/00	VRU#4	11389	2019-11-27	Facilities	Equip & Tie-In
102/05-24-010-26W1/00	VRU#4	11390	2019-09-24	Construction	Construction
102/05-24-010-26W1/00	VRU#4	11390	2019-11-27	Facilities	Equip & Tie-In

Waterflood Pattern Map

