

**Waskada Unit No. 4**

**Waterflood Progress Report 2019**

**January 1<sup>st</sup> through December 31<sup>st</sup> 2019**

**Prepared for:**

**Manitoba Industry, Economic Development and Mines**

**Petroleum Branch**

**Prepared by:**

**Tundra Oil and Gas**

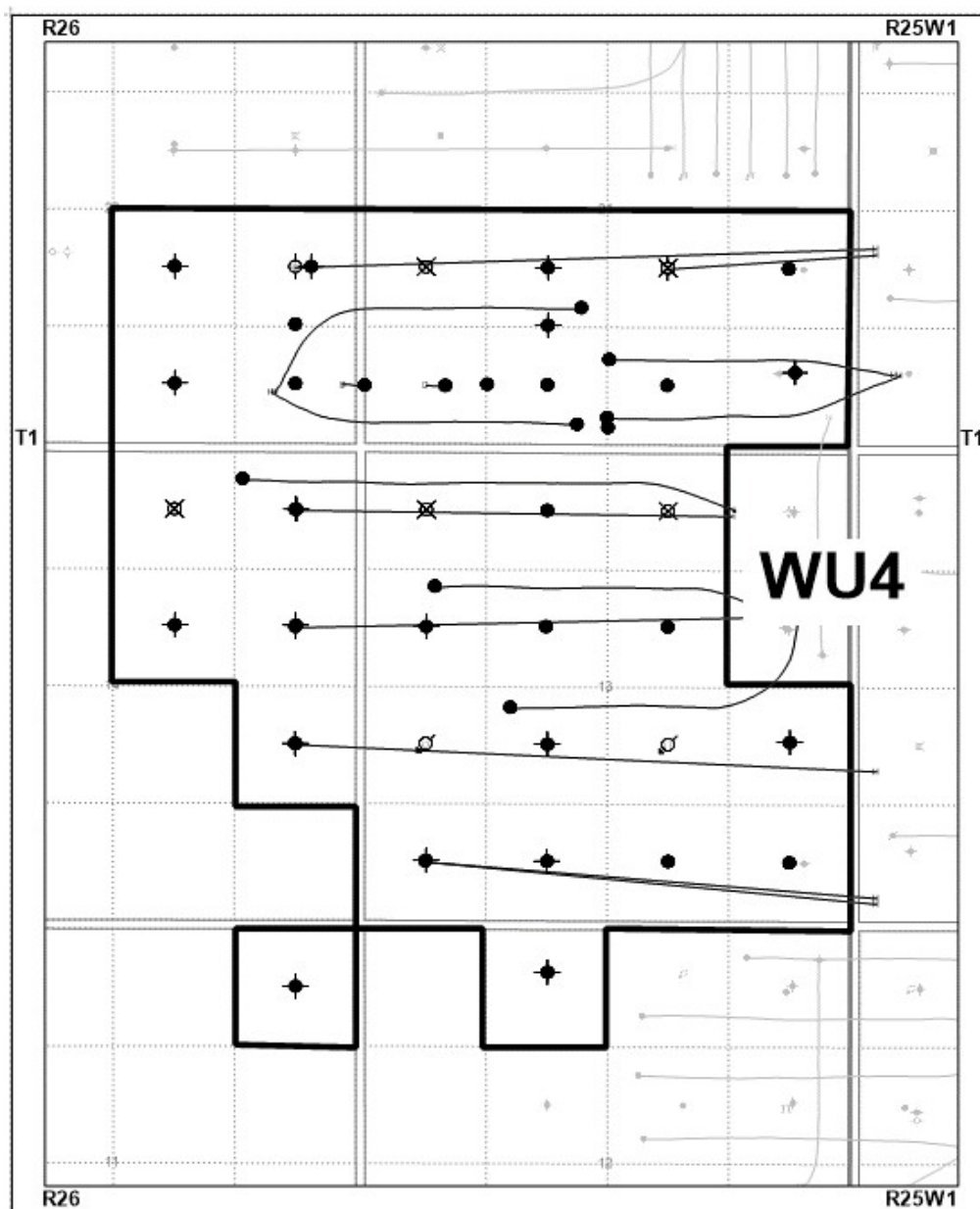
**March 18, 2020**

## INTRODUCTION

Waskada Unit No. 4 Enhanced Oil Recovery (EOR) Waterflood Project was approved under Board Order No. PM58 effective June 1984. The Unit area contains 38 abandoned/inactive wells, including 9 inactive/abandoned injectors, 13 producing wells, in 33 LSDs in Township 1 Range 26 W1 as shown in the figure below.

**This unit is currently not on injection and there are no plans for injector re-activation.**

**Figure 1: Waskada Unit No. 4 Area Outline**



## Waskada Unit No. 4

Tundra Oil and Gas (Tundra), as the operator of the Waskada Unit No. 4 Enhanced Oil Recovery (EOR) project hereby submits the 2019 EOR report as per section 73 of the Drilling and Production Regulations.

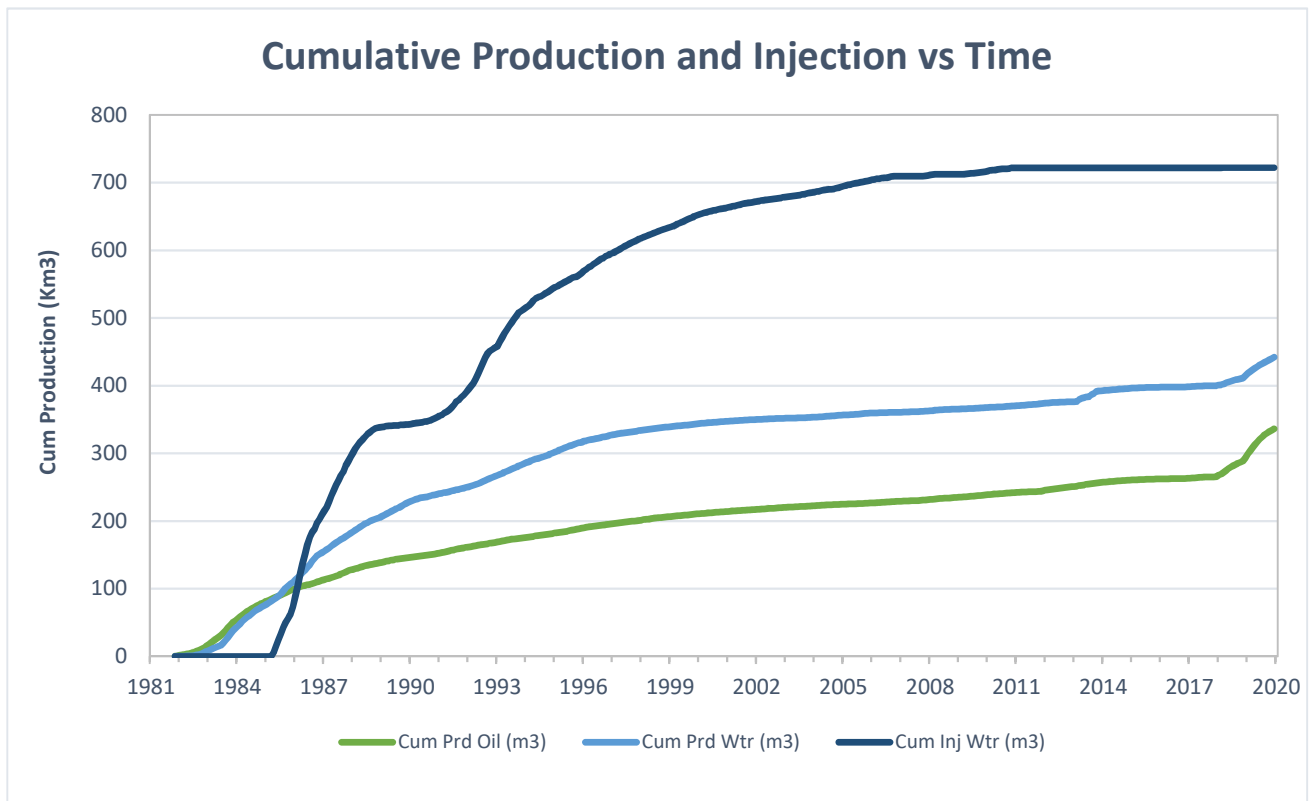
**a) Monthly oil and water production rates, injection rate, GOR and WOR**

MONTH	Cal Dly Oil m <sup>3</sup> /day	Cal Dly Wtr m <sup>3</sup> /day	Cal Inj Wtr m <sup>3</sup> /day	WOR m <sup>3</sup> /m <sup>3</sup>	GOR m <sup>3</sup> /m <sup>3</sup>
Jan-2019	189.59	110.80	0.00	0.58	0.41
Feb-2019	167.40	97.54	0.00	0.58	0.51
Mar-2019	156.40	89.17	0.00	0.57	0.47
Apr-2019	147.84	78.88	0.00	0.53	0.52
May-2019	131.48	78.57	0.00	0.60	0
Jun-2019	124.66	66.94	0.00	0.54	0
Jul-2019	112.03	64.61	0.00	0.58	0
Aug-2019	100.73	67.47	0.00	0.67	0
Sep-2019	89.76	64.78	0.00	0.72	0
Oct-2019	73.23	54.62	0.00	0.75	0
Nov-2019	66.90	70.51	0.00	1.05	0
Dec-2019	59.76	56.96	0.00	0.95	0

**b) Cumulative volume of oil, gas and water produced and fluid injected**

2019 PRODUCTION	
Produced Oil (m <sup>3</sup> )	43,082
Produced Gas (m <sup>3</sup> )	9
Produced Water (m <sup>3</sup> )	27,353
Fluid Injected (m <sup>3</sup> )	0
CUMULATIVE PRODUCTION	
Produced Oil (m <sup>3</sup> )	336,077
Produced Water (m <sup>3</sup> )	441,941

## Waskada Unit No. 4



**c) Well List****Waskada Unit No. 4 Well List**

<i><b>UWI</b></i>	<i><b>Type</b></i>	<i><b>Status</b></i>	<i><b>Future Plans</b></i>
100/05-13-001-26W1/0	Vertical	Injection	-
100/07-13-001-26W1/0	Vertical	Injection	-