

**Waskada Unit No. 23**

**Waterflood Progress Report 2017**

**January 1<sup>st</sup> through December 31<sup>st</sup> 2017**

**Prepared for:**

**Manitoba Industry, Economic Development and Mines**

**Petroleum Branch**

**Prepared by:**

**Tundra Oil and Gas**

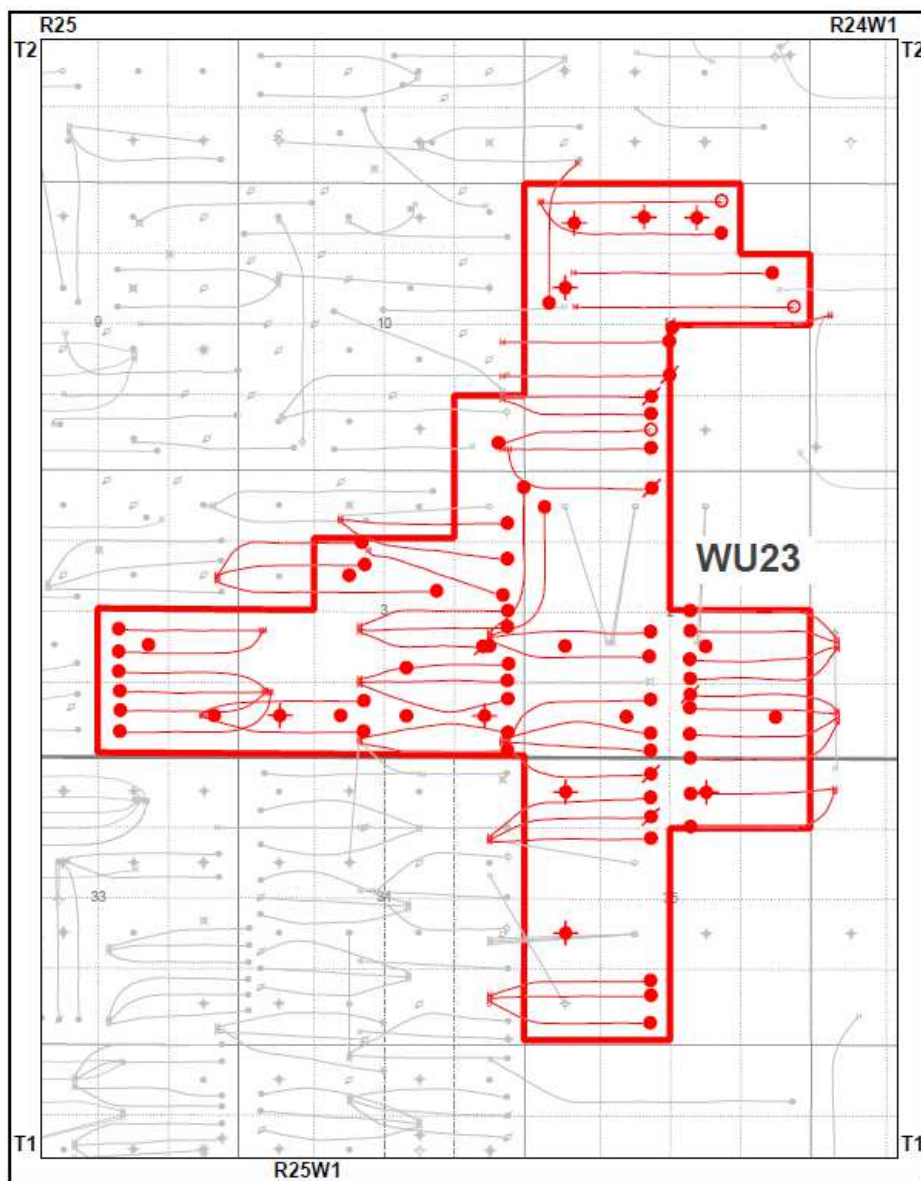
**July 30, 2018**

## INTRODUCTION

Waskada Unit No. 23 Enhanced Oil Recovery (EOR) Waterflood Project was approved November 1, 2017. Waskada Unit No. 23 area contains 21 vertical wells (9 abandoned, 12 producing) and 59 horizontal wells (10 suspended, 49 producing) in 50 Legal Sub Divisions (LSD) in Townships 1 and 2, Range 25 W1 as shown in the figure below.

**This unit is currently not on injection.**

**Figure 1: Waskada Unit No. 23 Area Outline**



## Waskada Unit No. 23

Tundra Oil and Gas (Tundra), as the operator of the Waskada Unit No. 23 Enhanced Oil Recovery (EOR) project hereby submits the 2017 EOR report as per section 73 of the Drilling and Production Regulations.

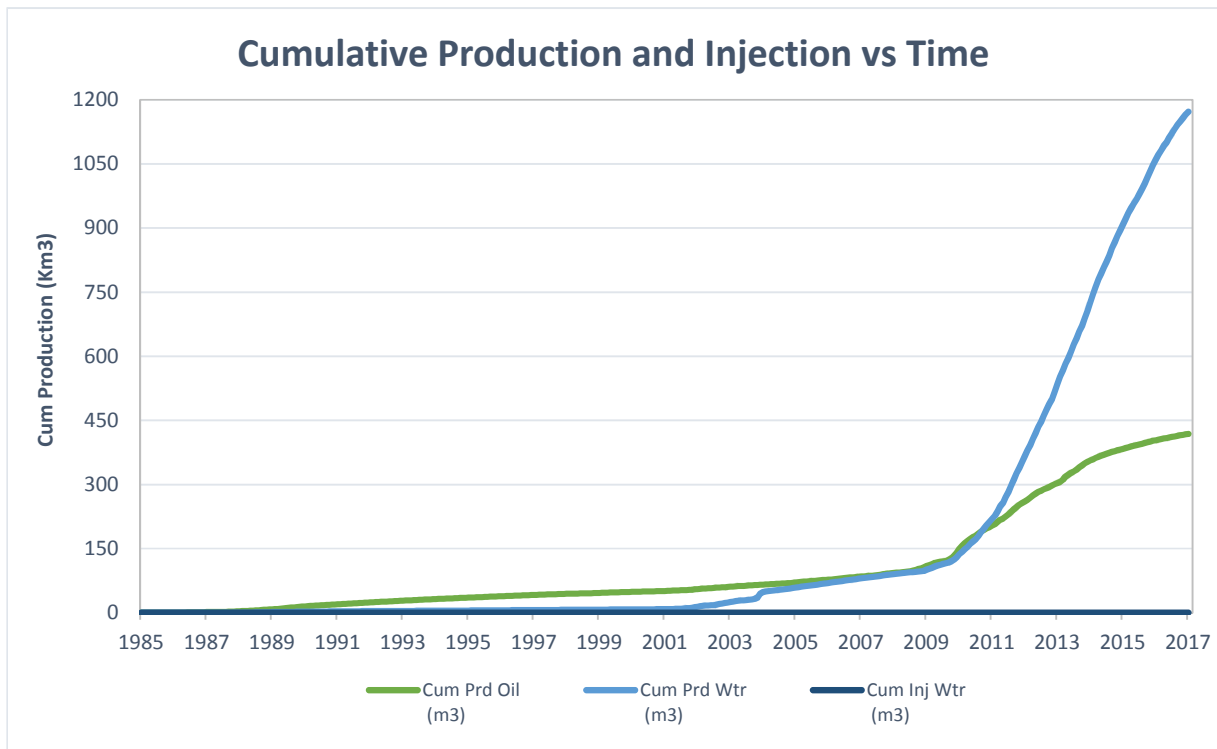
**a) Monthly oil and water production rates, injection rate, GOR and WOR**

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-2017	44.57	361.80	0.00	8.12	21.13
Feb-2017	46.58	391.91	0.00	8.41	23.92
Mar-2017	40.51	329.99	0.00	8.15	26.6
Apr-2017	33.34	270.91	0.00	8.12	9.7
May-2017	47.47	374.33	0.00	7.89	7.41
Jun-2017	42.69	343.07	0.00	8.04	7.42
Jul-2017	39.89	326.17	0.00	8.18	4.85
Aug-2017	40.47	291.83	0.00	7.21	4.78
Sep-2017	39.75	264.53	0.00	6.66	5.2
Oct-2017	38.77	268.90	0.00	6.94	5.16
Nov-2017	38.64	262.03	0.00	6.78	5.35
Dec-2017	32.45	217.31	0.00	6.70	6.46

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

2017 PRODUCTION	
Produced Oil (m <sup>3</sup> )	14,745
Produced Gas (m <sup>3</sup> )	161
Produced Water (m <sup>3</sup> )	112,470
Fluid Injected (m <sup>3</sup> )	0
CUMULATIVE PRODUCTION	
Produced Oil (m <sup>3</sup> )	418,213
Produced Water (m <sup>3</sup> )	1,171,990

## Waskada Unit No. 23



<i><b>UWI</b></i>	<i><b>Type</b></i>	<i><b>Status</b></i>	<i><b>Future Plans</b></i>
100/03-35-001-25W1/0	Horizontal	Producing	-
102/03-35-001-25W1/0	Horizontal	Producing	-
103/03-35-001-25W1/0	Horizontal	Producing	-
100/05-35-001-25W1/0	Vertical	Abandoned Zone	-
100/11-35-001-25W1/0	Horizontal	Producing	-
100/13-35-001-25W1/0	Vertical	Abandoned Zone	-
100/14-35-001-25W1/0	Horizontal	Suspended	-
102/14-35-001-25W1/0	Horizontal	Producing	-
103/14-35-001-25W1/0	Horizontal	Suspended	-
100/15-35-001-25W1/0	Vertical	Abandoned Zone	-
102/15-35-001-25W1/0	Horizontal	Producing	-
103/15-35-001-25W1/0	Horizontal	Producing	-
104/15-35-001-25W1/0	Horizontal	Producing	-
100/01-02-002-25W1/0	Vertical	Producing	-
100/02-02-002-25W1/0	Horizontal	Producing	-
102/02-02-002-25W1/0	Horizontal	Producing	-
103/02-02-002-25W1/0	Horizontal	Suspended	-
100/03-02-002-25W1/0	Vertical	Pumping	-
102/03-02-002-25W1/0	Horizontal	Producing	-
103/03-02-002-25W1/0	Horizontal	Producing	-
104/03-02-002-25W1/0	Horizontal	Producing	-
100/05-02-002-25W1/0	Vertical	Pumping	-
102/06-02-002-25W1/0	Horizontal	Producing	-
103/06-02-002-25W1/0	Horizontal	Producing	-
100/07-02-002-25W1/0	Vertical	Producing	-
102/07-02-002-25W1/0	Horizontal	Producing	-
103/07-02-002-25W1/0	Horizontal	Producing	-
104/07-02-002-25W1/0	Horizontal	Producing	-
100/10-02-002-25W1/0	Horizontal	Producing	-
100/13-02-002-25W1/0	Horizontal	Producing	-
100/14-02-002-25W1/0	Horizontal	Suspended	-
100/01-03-002-25W1/0	Vertical	Abandoned	-
102/01-03-002-25W1/0	Horizontal	Producing	-
103/01-03-002-25W1/0	Horizontal	Producing	-
104/01-03-002-25W1/0	Horizontal	Producing	-
100/02-03-002-25W1/0	Vertical	Producing	-
100/03-03-002-25W1/2	Vertical	Producing	-
102/03-03-002-25W1/0	Horizontal	Producing	-
103/03-03-002-25W1/0	Horizontal	Producing	-
100/04-03-002-25W1/0	Vertical	Abandoned Zone	-
100/07-03-002-25W1/0	Vertical	Pumping	-
100/08-03-002-25W1/0	Vertical	Producing	-
102/08-03-002-25W1/0	Horizontal	Producing	-
103/08-03-002-25W1/0	Horizontal	Producing	-
104/08-03-002-25W1/0	Horizontal	Suspended	-

<i>UWI</i>	<i>Type</i>	<i>Status</i>	<i>Future Plans</i>
105/08-03-002-25W1/0	Horizontal	Producing	-
106/08-03-002-25W1/0	Horizontal	Producing	-
100/09-03-002-25W1/0	Horizontal	Producing	-
102/09-03-002-25W1/0	Horizontal	Producing	-
100/10-03-002-25W1/0	Horizontal	Producing	-
100/11-03-002-25W1/0	Vertical	Pumping	-
102/11-03-002-25W1/0	Horizontal	Producing	-
103/11-03-002-25W1/0	Horizontal	Producing	-
100/16-03-002-25W1/0	Horizontal	Producing	-
102/16-03-002-25W1/0	Horizontal	Producing	-
100/01-04-002-25W1/0	Vertical	Producing	-
100/02-04-002-25W1/0	Horizontal	Producing	-
102/02-04-002-25W1/0	Horizontal	Producing	-
103/02-04-002-25W1/0	Horizontal	Producing	-
100/07-04-002-25W1/2	Vertical	Producing	-
102/07-04-002-25W1/0	Horizontal	Producing	-
103/07-04-002-25W1/0	Horizontal	Producing	-
104/07-04-002-25W1/0	Horizontal	Producing	-
100/01-10-002-25W1/0	Vertical	Pumping	-
100/03-11-002-25W1/0	Horizontal	Producing	-
102/03-11-002-25W1/0	Horizontal	Producing	-
103/03-11-002-25W1/0	Horizontal	Potential	-
104/03-11-002-25W1/0	Horizontal	Suspended	-
100/06-11-002-25W1/0	Horizontal	Suspended	-
102/06-11-002-25W1/0	Horizontal	Producing	-
100/07-11-002-25W1/0	Horizontal	Producing	-
100/09-11-002-25W1/0	Horizontal	Producing	-
102/09-11-002-25W1/0	Horizontal	Potential	-
100/12-11-002-25W1/0	Vertical	Abandoned Zone	-
102/12-11-002-25W1/0	Horizontal	Producing	-
100/13-11-002-25W1/0	Vertical	Abandoned Zone	-
100/14-11-002-25W1/0	Vertical	Abandoned Zone	-
100/15-11-002-25W1/0	Vertical	Abandoned Zone	-
102/15-11-002-25W1/0	Horizontal	Potential	-
103/15-11-002-25W1/0	Horizontal	Producing	-