

Waskada Unit No. 22

Waterflood Progress Report 2017

January 1st through December 31st 2017

Prepared for:

Manitoba Industry, Economic Development and Mines

Petroleum Branch

Prepared by:

Tundra Oil and Gas

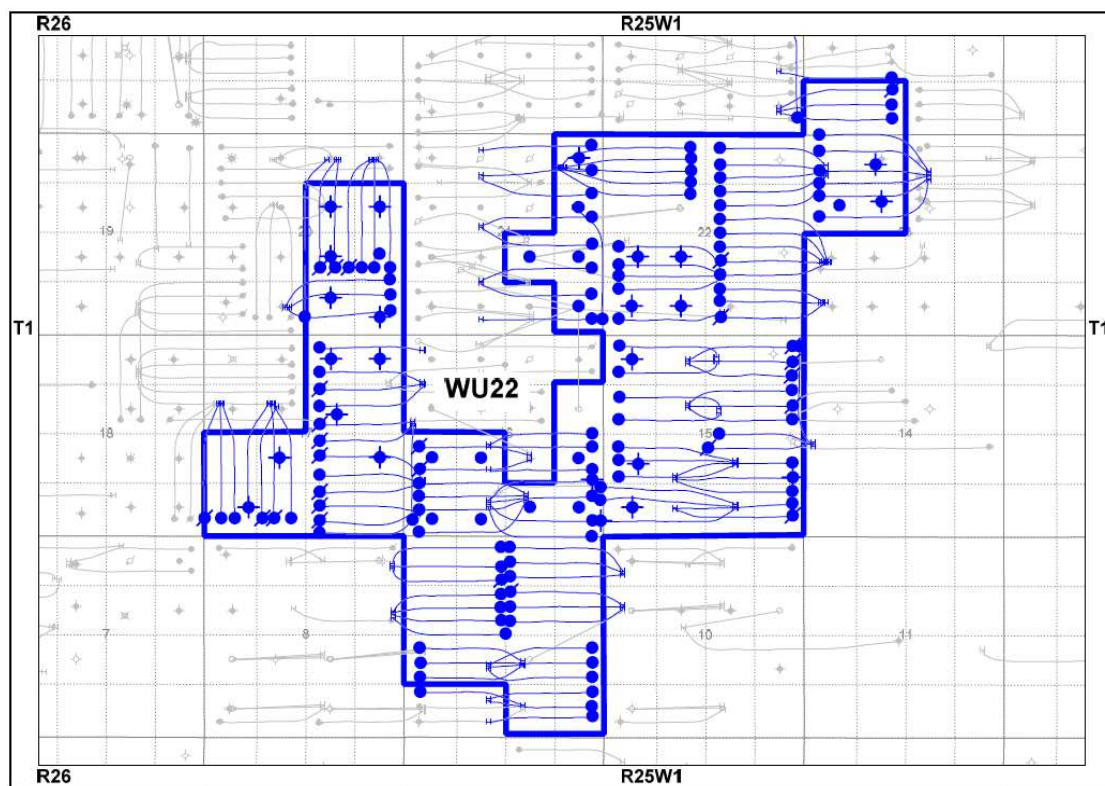
July 30, 2018

INTRODUCTION

Waskada Unit No. 22 Enhanced Oil Recovery (EOR) Waterflood Project was approved October 1, 2017. Waskada Unit No. 22 area contains 33 vertical wells (20 abandoned, 13 producing) and 133 horizontal wells (30 abandoned/suspended, 103 producing) in 83 Legal Sub Divisions (LSD) in Township 1, Range 25 W1 as shown in the figure below.

This unit is currently not on injection.

Figure 1: Waskada Unit No. 22 Area Outline



Waskada Unit No. 22

Tundra Oil and Gas (Tundra), as the operator of the Waskada Unit No. 22 Enhanced Oil Recovery (EOR) project hereby submits the 2017 EOR report as per section 73 of the Drilling and Production Regulations.

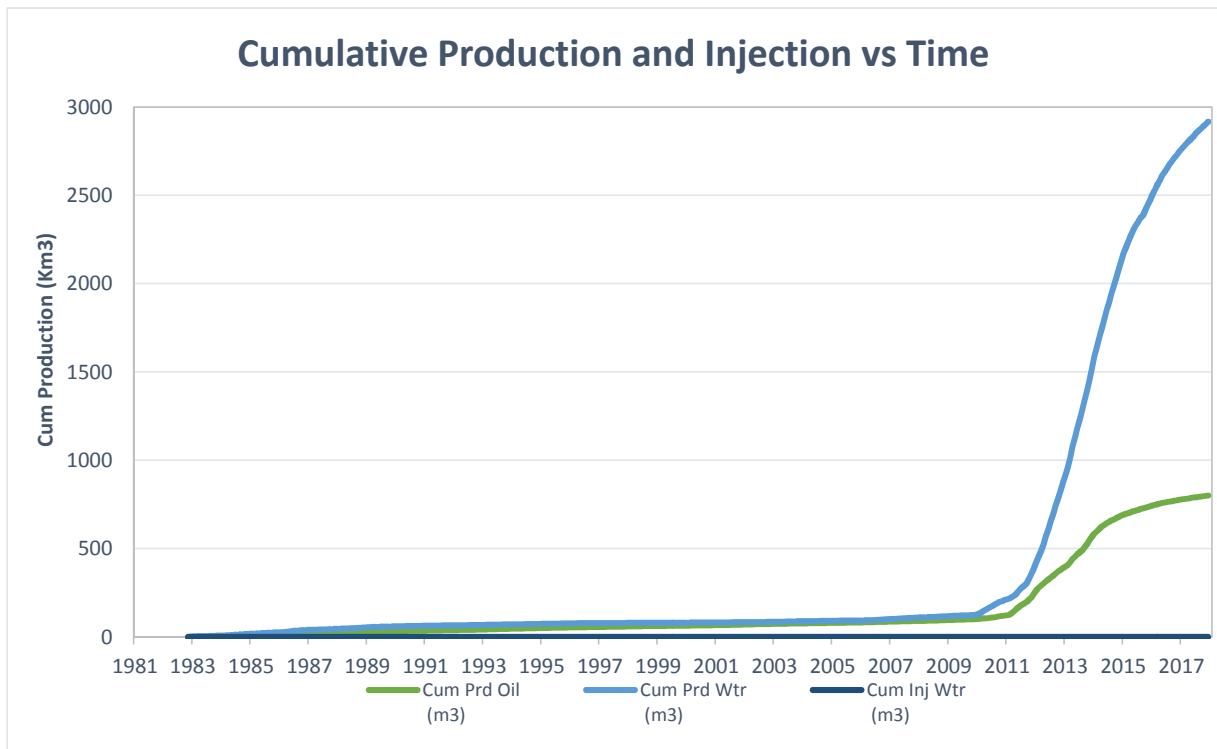
a) Monthly oil and water production rates, injection rate, GOR and WOR

MONTH	Cal Dly Oil m ³ /day	Cal Dly Wtr m ³ /day	Cal Inj Wtr m ³ /day	WOR m ³ /m ³	GOR m ³ /m ³
Jan-2017	76.71	531.59	0.00	6.93	64.63
Feb-2017	76.74	547.66	0.00	7.14	73.02
Mar-2017	71.66	504.05	0.00	7.03	70.59
Apr-2017	64.82	431.63	0.00	6.66	79.35
May-2017	66.23	459.41	0.00	6.94	71.06
Jun-2017	61.94	480.37	0.00	7.76	77.76
Jul-2017	56.02	474.77	0.00	8.47	51.25
Aug-2017	62.10	465.18	0.00	7.49	46.75
Sep-2017	61.88	431.71	0.00	6.98	48.86
Oct-2017	61.36	431.73	0.00	7.04	47.68
Nov-2017	58.53	433.46	0.00	7.41	51.94
Dec-2017	55.41	408.55	0.00	7.37	55.25

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

2017 PRODUCTION	
Produced Oil (m ³)	23,498
Produced Gas (m ³)	1459
Produced Water (m ³)	170,184
Fluid Injected (m ³)	0
CUMULATIVE PRODUCTION	
Produced Oil (m ³)	800,210
Produced Water (m ³)	2,918,080

Waskada Unit No. 22



<i>UWI</i>	<i>Type</i>	<i>Status</i>	<i>Future Plans</i>
100/01-09-001-25W1/0	Horizontal	Producing	-
102/01-09-001-25W1/0	Horizontal	Producing	-
103/01-09-001-25W1/0	Horizontal	Producing	-
103/04-09-001-25W1/0	Horizontal	Producing	-
100/05-09-001-25W1/0	Horizontal	Producing	-
102/05-09-001-25W1/0	Horizontal	Producing	-
103/05-09-001-25W1/0	Horizontal	Producing	-
100/08-09-001-25W1/0	Horizontal	Producing	-
102/08-09-001-25W1/0	Horizontal	Producing	-
103/08-09-001-25W1/0	Horizontal	Producing	-
100/10-09-001-25W1/0	Horizontal	Producing	-
102/10-09-001-25W1/0	Horizontal	Producing	-
103/10-09-001-25W1/0	Horizontal	Suspended	-
100/11-09-001-25W1/0	Horizontal	Producing	-
102/11-09-001-25W1/0	Horizontal	Producing	-
103/11-09-001-25W1/0	Horizontal	Producing	-
104/11-09-001-25W1/0	Horizontal	Producing	-
100/14-09-001-25W1/0	Horizontal	Suspended	-
102/14-09-001-25W1/0	Horizontal	Producing	-
103/14-09-001-25W1/0	Horizontal	Producing	-
100/15-09-001-25W1/0	Horizontal	Producing	-
102/15-09-001-25W1/0	Horizontal	Producing	-
103/15-09-001-25W1/0	Horizontal	Producing	-
100/16-09-001-25W1/0	Horizontal	Producing	-
100/01-15-001-25W1/0	Horizontal	Producing	-
102/01-15-001-25W1/0	Horizontal	Suspended	-
103/01-15-001-25W1/0	Horizontal	Producing	-
100/04-15-001-25W1/0	Vertical	Abandoned Zone	-
100/05-15-001-25W1/0	Vertical	Abandoned	-
102/05-15-001-25W1/0	Horizontal	Producing	-
103/05-15-001-25W1/0	Horizontal	Producing	-
104/05-15-001-25W1/0	Horizontal	Producing	-
100/07-15-001-25W1/0	Horizontal	Suspended	-
102/07-15-001-25W1/2	Horizontal	Producing	-
100/08-15-001-25W1/0	Horizontal	Abandoned Zone	-
102/08-15-001-25W1/0	Horizontal	Producing	-
100/09-15-001-25W1/0	Horizontal	Producing	-
102/09-15-001-25W1/0	Horizontal	Suspended	-
103/09-15-001-25W1/0	Horizontal	Producing	-
100/12-15-001-25W1/0	Horizontal	Producing	-
102/12-15-001-25W1/0	Horizontal	Producing	-
100/13-15-001-25W1/0	Vertical	Abandoned	-
102/13-15-001-25W1/0	Horizontal	Producing	-
103/13-15-001-25W1/0	Horizontal	Producing	-
102/16-15-001-25W1/0	Horizontal	Suspended	-

<i>UWI</i>	<i>Type</i>	<i>Status</i>	<i>Future Plans</i>
103/16-15-001-25W1/0	Horizontal	Suspended	-
104/16-15-001-25W1/0	Horizontal	Suspended	-
105/16-15-001-25W1/0	Horizontal	Producing	-
100/01-16-001-25W1/0	Vertical	Producing	-
102/01-16-001-25W1/0	Horizontal	Abandoned Zone	-
103/01-16-001-25W1/0	Horizontal	Producing	-
104/01-16-001-25W1/0	Horizontal	Producing	-
105/01-16-001-25W1/0	Horizontal	Producing	-
106/01-16-001-25W1/0	Horizontal	Producing	-
107/01-16-001-25W1/3	Horizontal	Abandoned Zone	-
100/02-16-001-25W1/0	Vertical	Producing	-
100/03-16-001-25W1/0	Vertical	Producing	-
100/04-16-001-25W1/0	Vertical	Producing	-
102/04-16-001-25W1/0	Horizontal	Producing	-
103/04-16-001-25W1/0	Horizontal	Producing	-
104/04-16-001-25W1/0	Horizontal	Producing	-
105/04-16-001-25W1/0	Horizontal	Producing	-
106/04-16-001-25W1/0	Horizontal	Producing	-
100/05-16-001-25W1/0	Vertical	Pumping	-
102/05-16-001-25W1/0	Horizontal	Suspended	-
103/05-16-001-25W1/0	Horizontal	Suspended	-
100/06-16-001-25W1/0	Vertical	Pumping	-
100/08-16-001-25W1/0	Vertical	Producing	-
102/08-16-001-25W1/0	Horizontal	Producing	-
103/08-16-001-25W1/0	Horizontal	Producing	-
104/08-16-001-25W1/0	Horizontal	Producing	-
100/02-17-001-25W1/0	Horizontal	Producing	-
102/02-17-001-25W1/0	Horizontal	Suspended	-
103/02-17-001-25W1/0	Horizontal	Suspended	-
104/02-17-001-25W1/0	Horizontal	Suspended	-
100/03-17-001-25W1/0	Horizontal	Suspended	-
102/03-17-001-25W1/0	Horizontal	Producing	-
103/03-17-001-25W1/0	Horizontal	Suspended	-
100/04-17-001-25W1/0	Horizontal	Producing	-
102/04-17-001-25W1/0	Horizontal	Producing	-
103/04-17-001-25W1/0	Horizontal	Abandoned Zone	-
100/06-17-001-25W1/0	Vertical	Abandoned	-
100/07-17-001-25W1/0	Horizontal	Producing	-
102/07-17-001-25W1/0	Horizontal	Suspended	-
103/07-17-001-25W1/0	Horizontal	Suspended	-
100/08-17-001-25W1/0	Vertical	Abandoned	-
100/10-17-001-25W1/0	Vertical	Abandoned	-
102/10-17-001-25W1/0	Horizontal	Suspended	-
103/10-17-001-25W1/0	Horizontal	Producing	-
100/15-17-001-25W1/0	Vertical	Abandoned	-
102/15-17-001-25W1/0	Horizontal	Producing	-

<i>UWI</i>	<i>Type</i>	<i>Status</i>	<i>Future Plans</i>
103/15-17-001-25W1/0	Horizontal	Suspended	-
104/15-17-001-25W1/0	Horizontal	Producing	-
100/16-17-001-25W1/0	Vertical	Abandoned	-
104/01-18-001-25W1/0	Horizontal	Suspended	-
100/01-20-001-25W1/0	Vertical	Abandoned	-
102/01-20-001-25W1/0	Horizontal	Producing	-
103/01-20-001-25W1/0	Horizontal	Producing	-
100/02-20-001-25W1/2	Vertical	Abandoned	-
102/03-20-001-25W1/0	Horizontal	Producing	-
100/07-20-001-25W1/0	Vertical	Abandoned	-
102/07-20-001-25W1/0	Horizontal	Suspended	-
103/07-20-001-25W1/0	Horizontal	Suspended	-
104/07-20-001-25W1/0	Horizontal	Suspended	-
100/08-20-001-25W1/0	Vertical	Producing	-
102/08-20-001-25W1/0	Horizontal	Producing	-
103/08-20-001-25W1/0	Horizontal	Producing	-
104/08-20-001-25W1/0	Horizontal	Producing	-
105/08-20-001-25W1/0	Horizontal	Producing	-
100/09-20-001-25W1/0	Vertical	Abandoned Zone	-
100/10-20-001-25W1/0	Vertical	Abandoned Zone	-
100/01-21-001-25W1/0	Vertical	Producing	-
102/01-21-001-25W1/0	Horizontal	Producing	-
103/01-21-001-25W1/0	Horizontal	Producing	-
104/01-21-001-25W1/0	Horizontal	Producing	-
100/07-21-001-25W1/0	Vertical	Pumping	-
100/08-21-001-25W1/0	Vertical	Producing	-
102/08-21-001-25W1/0	Horizontal	Producing	-
103/08-21-001-25W1/0	Horizontal	Producing	-
100/09-21-001-25W1/0	Vertical	Producing	-
102/09-21-001-25W1/0	Horizontal	Producing	-
103/09-21-001-25W1/0	Horizontal	Producing	-
100/16-21-001-25W1/0	Vertical	Abandoned Zone	-
102/16-21-001-25W1/0	Horizontal	Producing	-
103/16-21-001-25W1/0	Horizontal	Producing	-
102/02-22-001-25W1/0	Horizontal	Producing	-
103/02-22-001-25W1/0	Horizontal	Producing	-
104/02-22-001-25W1/0	Horizontal	Suspended	-
100/03-22-001-25W1/0	Vertical	Abandoned	-
100/04-22-001-25W1/0	Vertical	Abandoned	-
102/04-22-001-25W1/0	Horizontal	Producing	-
103/04-22-001-25W1/0	Horizontal	Producing	-
100/05-22-001-25W1/0	Vertical	Abandoned	-
102/05-22-001-25W1/0	Horizontal	Producing	-
103/05-22-001-25W1/0	Horizontal	Producing	-
104/05-22-001-25W1/0	Horizontal	Producing	-
100/06-22-001-25W1/2	Vertical	Abandoned	-

<i>UWI</i>	<i>Type</i>	<i>Status</i>	<i>Future Plans</i>
100/07-22-001-25W1/0	Horizontal	Producing	-
102/07-22-001-25W1/0	Horizontal	Producing	-
103/07-22-001-25W1/0	Horizontal	Suspended	-
104/07-22-001-25W1/0	Horizontal	Producing	-
100/10-22-001-25W1/0	Horizontal	Producing	-
102/10-22-001-25W1/0	Horizontal	Producing	-
103/10-22-001-25W1/0	Horizontal	Producing	-
100/11-22-001-25W1/0	Horizontal	Producing	-
100/14-22-001-25W1/0	Horizontal	Producing	-
102/14-22-001-25W1/0	Horizontal	Producing	-
103/14-22-001-25W1/0	Horizontal	Producing	-
104/14-22-001-25W1/0	Horizontal	Producing	-
100/15-22-001-25W1/0	Horizontal	Producing	-
102/15-22-001-25W1/0	Horizontal	Producing	-
103/15-22-001-25W1/0	Horizontal	Producing	-
100/11-23-001-25W1/0	Vertical	Abandoned Zone	-
102/12-23-001-25W1/0	Vertical	Commingle	-
103/12-23-001-25W1/0	Horizontal	Producing	-
104/12-23-001-25W1/0	Horizontal	Producing	-
105/12-23-001-25W1/0	Horizontal	Producing	-
100/13-23-001-25W1/0	Horizontal	Producing	-
102/13-23-001-25W1/0	Horizontal	Producing	-
103/13-23-001-25W1/0	Horizontal	Producing	-
102/14-23-001-25W1/2	Vertical	Abandoned Zone	-
100/03-26-001-25W1/0	Horizontal	Producing	-
102/03-26-001-25W1/0	Horizontal	Producing	-
103/03-26-001-25W1/0	Horizontal	Suspended	-
100/06-26-001-25W1/0	Horizontal	Producing	-
104/01-27-001-25W1/0	Horizontal	Producing	-