

Waskada Unit No. 20

Waterflood Progress Report 2018

January 1st through December 31st 2018

Prepared for:

Manitoba Industry, Economic Development and Mines

Petroleum Branch

Prepared by:

Tundra Oil and Gas

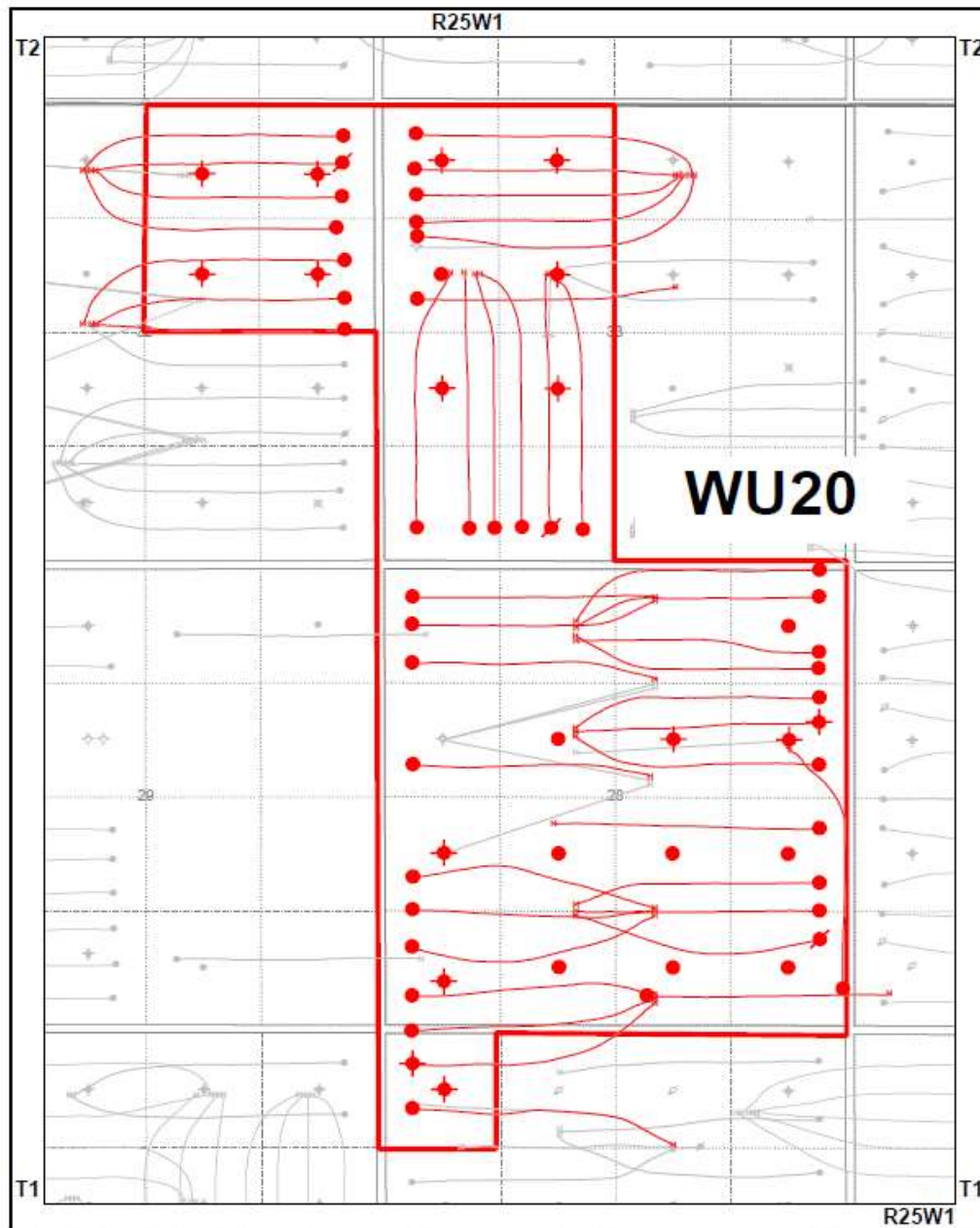
March 8, 2019

INTRODUCTION

Waskada Unit No. 20 Enhanced Oil Recovery (EOR) Waterflood Project was approved February 1, 2017. Waskada Unit No. 20 area contains 23 vertical wells (14 abandoned / 9 producing) and 43 horizontal wells (5 abandoned/suspended and 38 producing) in 29 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. 20 Area Outline



Waskada Unit No. 20

Tundra Oil and Gas (Tundra), as the operator of the Waskada Unit No. 20 Enhanced Oil Recovery (EOR) project hereby submits the 2018 EOR report as per section 73 of the Drilling and Production Regulations.

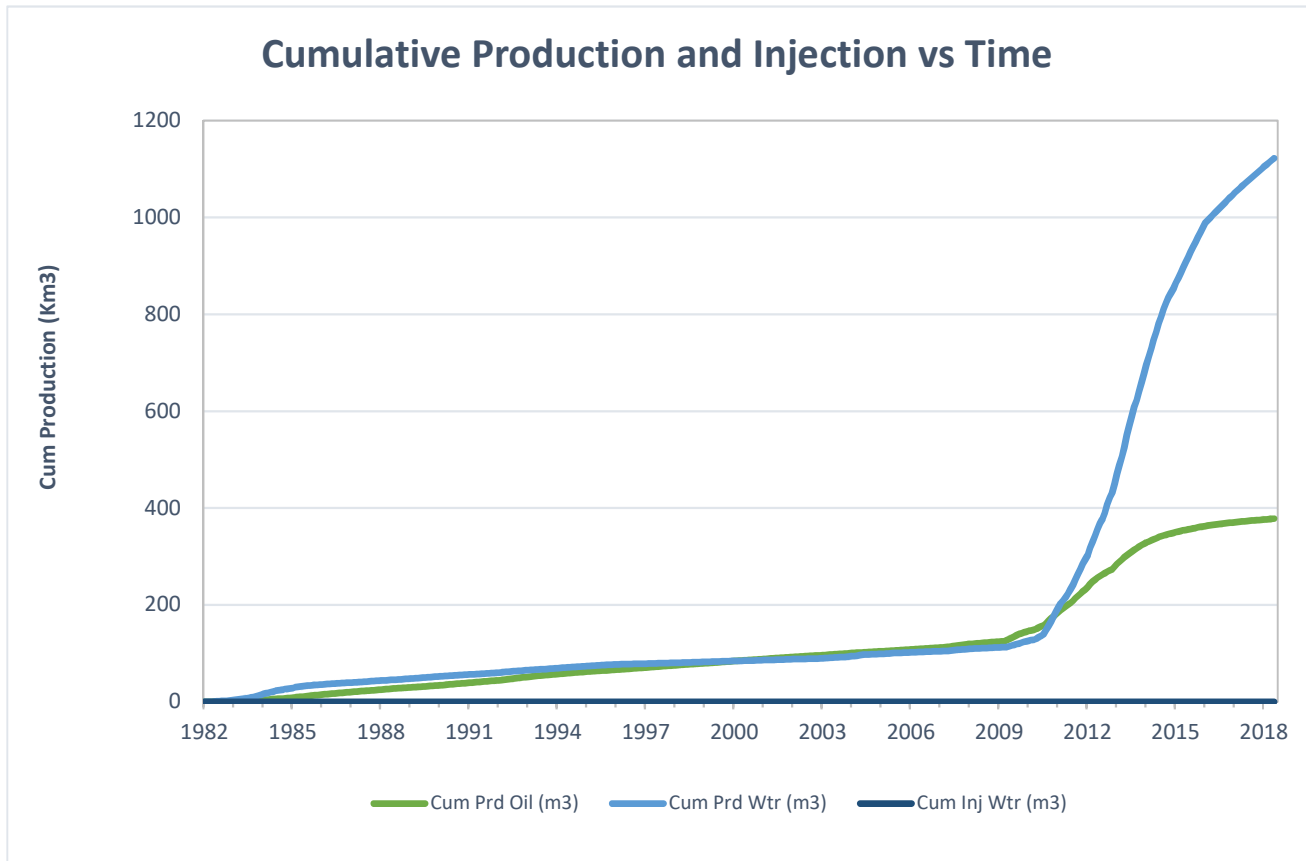
a) Monthly oil and water production rates, injection rate, GOR and WOR

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-2018	16.15	140.99	0.00	8.73	36.16
Feb-2018	15.39	138.40	0.00	8.99	42.46
Mar-2018	16.55	159.85	0.00	9.66	35.47
Apr-2018	13.51	145.73	0.00	10.79	38.98
May-2018	12.02	136.50	0.00	11.36	36.51
Jun-2018	12.81	154.93	0.00	12.10	37.22
Jul-2018	13.32	147.60	0.00	11.08	32.69
Aug-2018	14.19	142.45	0.00	10.04	30.69
Sep-2018	14.15	139.37	0.00	9.85	32.03
Oct-2018	14.62	142.17	0.00	9.72	34.2
Nov-2018	14.53	130.27	0.00	8.97	33.04
Dec-2018	15.45	138.42	0.00	8.96	27.55

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

2018 PRODUCTION	
Produced Oil (m ³)	5,252
Produced Gas (m ³)	6
Produced Water (m ³)	52,232
Fluid Injected (m ³)	0
CUMULATIVE PRODUCTION	
Produced Oil (m ³)	378,113
Produced Water (m ³)	1,122,227

Waskada Unit No. 20



c) Well List

Waskada Unit No. 20 Well List

<i>UWI</i>	<i>Type</i>	<i>Status</i>	<i>Future Plans</i>
100/13-21-001-25W1/0	Vertical	Abandoned	-
102/13-21-001-25W1/2	Horizontal	Producing	-
103/13-21-001-25W1/0	Horizontal	Abandoned Zone	-
104/13-21-001-25W1/0	Horizontal	Producing	-
100/01-28-001-25W1/0	Vertical	Pumping	-
102/01-28-001-25W1/0	Horizontal	Suspended	-
103/01-28-001-25W1/0	Horizontal	Producing	-
100/02-28-001-25W1/0	Vertical	Producing	-
102/02-28-001-25W1/0	Horizontal	Producing	-
100/03-28-001-25W1/0	Vertical	Pumping	-
100/04-28-001-25W1/0	Vertical	Abandoned	-
102/04-28-001-25W1/0	Horizontal	Producing	-
103/04-28-001-25W1/0	Horizontal	Producing	-
100/05-28-001-25W1/0	Vertical	Abandoned Zone	-
102/05-28-001-25W1/0	Horizontal	Producing	-
103/05-28-001-25W1/0	Horizontal	Producing	-
100/06-28-001-25W1/0	Vertical	Pumping	-
100/07-28-001-25W1/0	Vertical	Producing	-
100/08-28-001-25W1/0	Vertical	Producing	-
102/08-28-001-25W1/0	Horizontal	Producing	-
103/08-28-001-25W1/0	Horizontal	Producing	-
104/08-28-001-25W1/0	Horizontal	Producing	-
100/09-28-001-25W1/0	Vertical	Abandoned	-
102/09-28-001-25W1/0	Horizontal	Producing	-
103/09-28-001-25W1/0	Horizontal	Abandoned Zone	-
104/09-28-001-25W1/0	Horizontal	Producing	-
100/10-28-001-25W1/0	Vertical	Abandoned	-
100/11-28-001-25W1/0	Vertical	Pumping	-
100/12-28-001-25W1/0	Horizontal	Producing	-
100/13-28-001-25W1/0	Horizontal	Producing	-
102/13-28-001-25W1/0	Horizontal	Producing	-
103/13-28-001-25W1/0	Horizontal	Producing	-
100/16-28-001-25W1/0	Vertical	Producing	-
102/16-28-001-25W1/0	Horizontal	Producing	-
103/16-28-001-25W1/0	Horizontal	Producing	-
104/16-28-001-25W1/0	Horizontal	Producing	-
105/16-28-001-25W1/0	Horizontal	Producing	-
100/09-32-001-25W1/0	Vertical	Abandoned Zone	-
102/09-32-001-25W1/0	Horizontal	Producing	-
103/09-32-001-25W1/0	Horizontal	Producing	-
104/09-32-001-25W1/0	Horizontal	Producing	-
105/09-32-001-25W1/0	Horizontal	Producing	-
100/10-32-001-25W1/0	Vertical	Abandoned	-
100/15-32-001-25W1/0	Vertical	Abandoned Zone	-
100/16-32-001-25W1/0	Vertical	Abandoned	-

c) Well List

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<i>UWI</i>	<i>Type</i>	<i>Status</i>	<i>Future Plans</i>
102/16-32-001-25W1/0	Horizontal	Producing	-
103/16-32-001-25W1/0	Horizontal	Suspended	-
104/16-32-001-25W1/0	Horizontal	Producing	-
100/03-33-001-25W1/0	Horizontal	Producing	-
102/03-33-001-25W1/2	Horizontal	Suspended	-
103/03-33-001-25W1/0	Horizontal	Producing	-
100/04-33-001-25W1/0	Horizontal	Producing	-
102/04-33-001-25W1/0	Horizontal	Producing	-
103/04-33-001-25W1/0	Horizontal	Producing	-
100/05-33-001-25W1/0	Vertical	Abandoned	-
100/06-33-001-25W1/2	Vertical	Abandoned	-
100/11-33-001-25W1/0	Vertical	Abandoned	-
100/12-33-001-25W1/0	Vertical	Producing	-
102/12-33-001-25W1/2	Horizontal	Producing	-
103/12-33-001-25W1/0	Horizontal	Producing	-
104/12-33-001-25W1/0	Horizontal	Producing	-
100/13-33-001-25W1/0	Vertical	Abandoned Zone	-
102/13-33-001-25W1/0	Horizontal	Producing	-
103/13-33-001-25W1/0	Horizontal	Producing	-
104/13-33-001-25W1/0	Horizontal	Producing	-
102/14-33-001-25W1/0	Vertical	Abandoned Zone	-