

WASKADA UNIT NO. 14 - PM 58

Waterflood Progress Report 2020

Prepared for:

Manitoba Industry, Economic Development and Mines

Petroleum Branch

Prepared by:



TUNDRA OIL & GAS

Date: 2021-08-26

Introduction

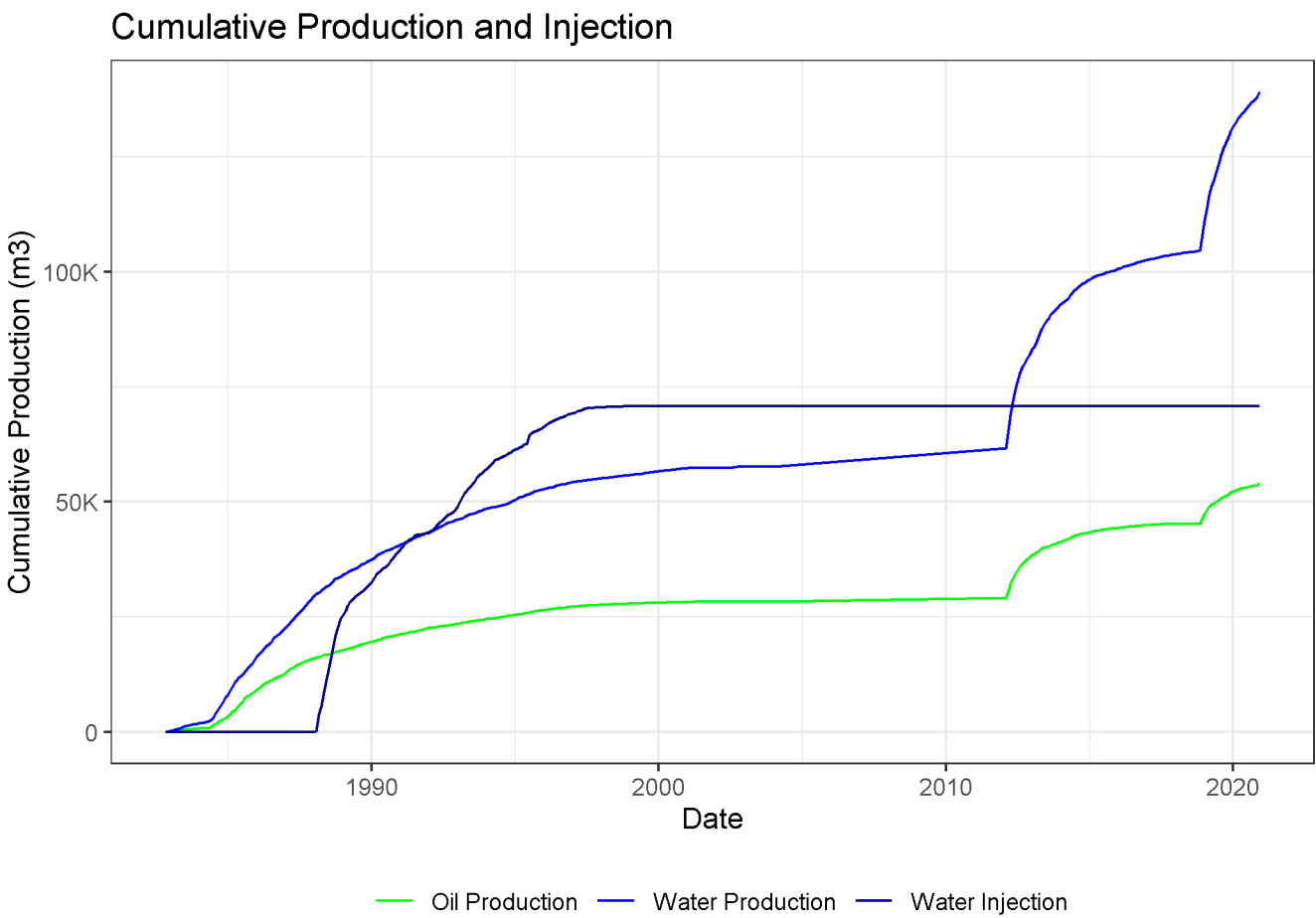
Waskada Unit No. 14 Enhanced Oil Recovery (EOR) Waterflood Project was approved under Board Order No. PM 58 effective February 1988. The Unit area contains wells in 8 LSDs in Township 1, Range 25 W1. The Unit contains 18 wells. 5 producers, 0 injectors, and 13 abandoned/suspended/other.

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

MONTH	Cal Day Oil m3/d	Cal Day Water m3/d	Cal Day Injection m3/d	WOR	GOR
JAN 2020	9.59	34.09	0	3.55	0
FEB 2020	8.14	30.54	0	3.75	0
MAR 2020	7.14	28.19	0	3.95	0
APR 2020	6.95	26.24	0	3.78	0
MAY 2020	2.47	10.56	0	4.28	0
JUN 2020	5.50	23.65	0	4.30	0
JUL 2020	4.90	24.15	0	4.93	0
AUG 2020	3.62	19.78	0	5.46	0
SEP 2020	2.62	15.15	0	5.78	0
OCT 2020	2.35	14.44	0	6.14	0
NOV 2020	4.22	20.15	0	4.77	0
DEC 2020	10.09	35.21	0	3.49	0
Average	5.63	23.51	0		

Year summary of produced oil, gas, water and fluid injected

Categories	m3
Oil Production	2,060
Water Production	8,600
Gas Production	0
Water Injection	0
Cumulative Oil	54,003
Cumulative Water	139,026
Cumulative Injection	70,846



Monthly Wellhead Pressure

NO INJECTION

Monthly Injected Volumes

NO INJECTION

Voidage

All Volumes are in m3 Oil Formation Volume Factor (Rm3/Sm3) = 1.17								
MONTH	Oil	Water	Injection	Cumulative Oil	Cumulative Water	Cumulative Injection	VRR	Cumulative VRR
JAN 2020	297	1,057	0	52,243	131,487	70,843	0	0.368
FEB 2020	236	886	0	52,479	132,373	70,843	0	0.366
MAR 2020	222	874	0	52,701	133,247	70,843	0	0.363
APR 2020	208	787	0	52,909	134,034	70,843	0	0.362
MAY 2020	76	327	0	52,985	134,361	70,843	0	0.361
JUN 2020	165	709	0	53,150	135,070	70,843	0	0.359
JUL 2020	152	749	0	53,302	135,819	70,843	0	0.357
AUG 2020	112	613	0	53,414	136,432	70,843	0	0.356
SEP 2020	79	454	0	53,493	136,886	70,843	0	0.355
OCT 2020	73	448	0	53,566	137,334	70,843	0	0.354
NOV 2020	127	605	0	53,693	137,939	70,843	0	0.353
DEC 2020	313	1,091	0	54,006	139,030	70,843	0	0.350

Workovers

UWI	Date	Description
102.06-32-001-25W1.00	2020-11-13	Rigless Acid Stimulation
103.03-32-001-25W1.00	2020-12-01	Rigless Acid Stimulation
103.06-32-001-25W1.00	2020-11-13	Rigless Acid Stimulation
104.03-32-001-25W1.00	2020-12-07	Rigless Acid Stimulation

Well List

UWI	Type	Status
100.01-32-001-25W1.00	Vertical	Abandoned
102.01-32-001-25W1.00	Horizontal	Producing
103.01-32-001-25W1.00	Horizontal	Producing
104.01-32-001-25W1.00	Horizontal	Producing
100.02-32-001-25W1.00	Vertical	Abandoned
102.03-32-001-25W1.00	Vertical	Abandoned
103.03-32-001-25W1.00	Horizontal	Producing
104.03-32-001-25W1.00	Horizontal	Producing
100.04-32-001-25W1.00	Vertical	Abandoned Zone
100.05-32-001-25W1.00	Vertical	Abandoned
100.06-32-001-25W1.00	Vertical	Abandoned
102.06-32-001-25W1.00	Horizontal	Producing
103.06-32-001-25W1.00	Horizontal	Producing
100.07-32-001-25W1.00	Vertical	Abandoned
100.08-32-001-25W1.02	Vertical	Abandoned
102.08-32-001-25W1.00	Horizontal	Producing
103.08-32-001-25W1.00	Horizontal	Suspended
104.08-32-001-25W1.00	Horizontal	Producing