EWART UNIT NO. 5

WATERFLOOD EOR PROJECT

ANNUAL REPORT FOR 2016

July 27, 2017

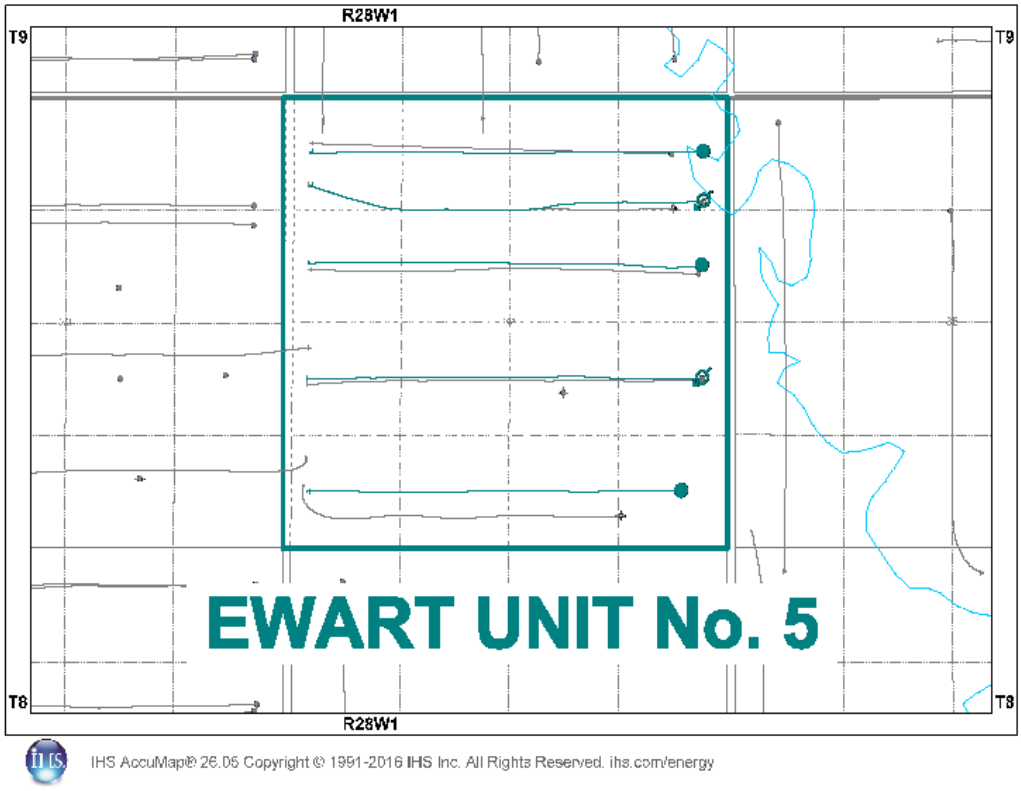
Tundra Oil and Gas Partnership

Table of Contents

INTRODUCTION

Ewart Unit No. 5 Enhanced Oil Recovery (EOR) Scheme was approved under EOR Order No. 35 effective April 1, 2014 with Tundra Oil and Gas (Tundra) as Operator. The EOR project area contains 3 horizontal producing wells and 2 horizontal injection wells in Section 34 Township 8 Range 28 W1 as shown in the figure below.

Figure 1: Ewart Unit No. 5 Area Outline



In accordance with Section 73 of the Manitoba Drilling and Production Regulation, Tundra hereby submits the following 2016 Annual Progress Report for Ewart Unit No. 5.

DISCUSSION

Production History

For the wells included in Ewart Unit No. 5, production started in July 2008 with the 00/01-34-008-28W1 well. Average oil production peaked at 14.17 m³/d per well in December of 2009. This production was coming from 3 wells and totaled 42.52 m³/d for the Unit. In December 2016, the Unit was producing 5.00 m³/d of oil and 2.20 m³/d of

water. Water injection commenced in Ewart Unit No. 5 in March 2015. Gas injection commenced in September 2015 in the 02/16-34-008-28W1 location. The rates and WOR are presented in Figure 2.

Figure 2: Ewart Unit No. 5 Production/Injection Rates and WOR vs Time

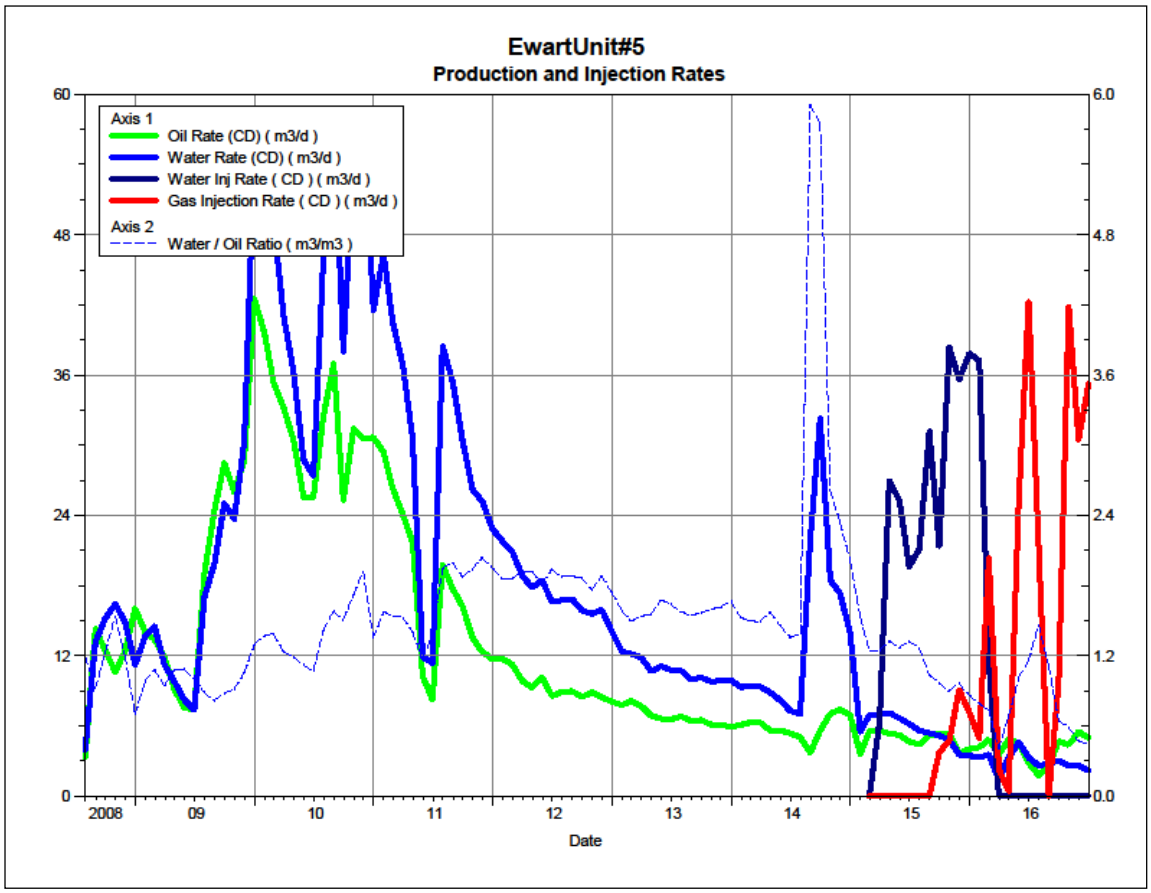
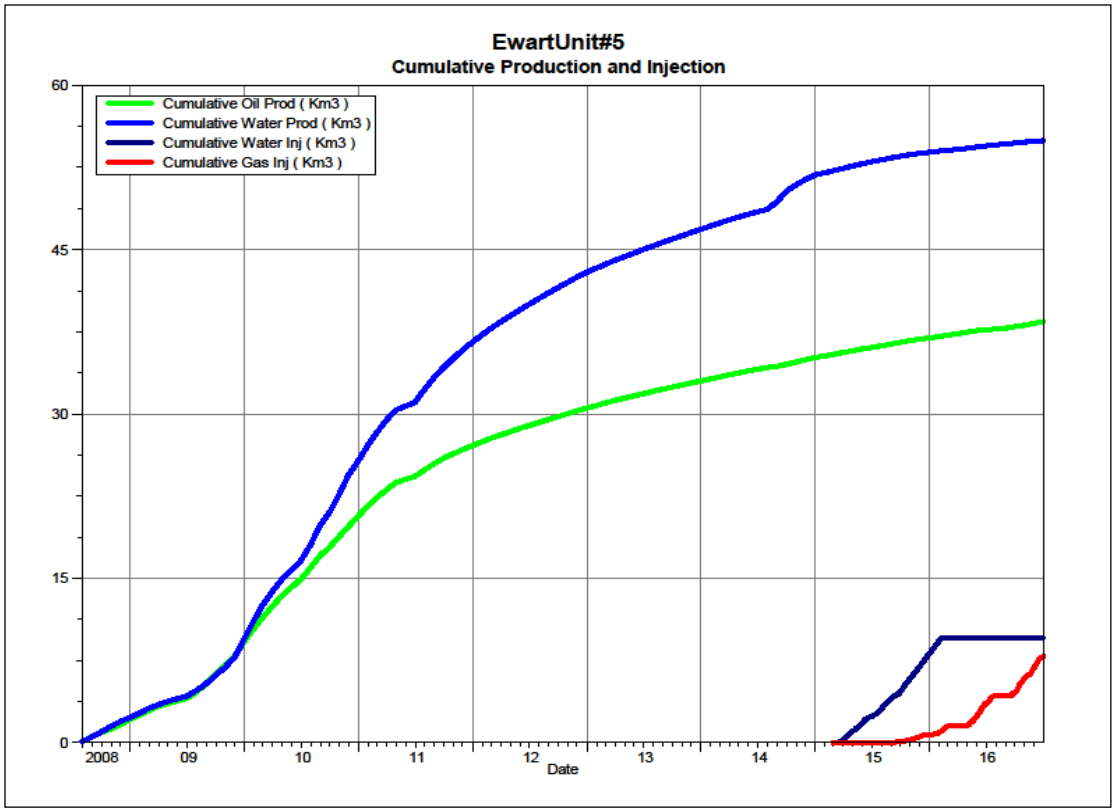


Figure 3 shows the cumulative production for Ewart Unit No. 5 to the end of December 2016 as 38.41 e^3m^3 of oil, and 54.95 e^3m^3 of water, representing an 8.7% recovery factor of the OOIP. The cumulative water injected is 9.55 re^3m^3 and the cumulative gas injected is 7.93 re^3m^3 (Table 2, Appendix A)

Figure 3: Ewart Unit No. 5 Cumulative Oil, Water and Water Injected vs Time



Waterflood Development Plan

Ewart Unit No. 5 Waterflood (WF) Development Plan

Ewart Unit No. 5 is still in the development phase at the end of 2016. The purpose of this Immiscible Gas Injection Pilot is to install gas injection in Section 34 and evaluate over a 5 year period whether water alternating gas (WAG) injection will result in improved oil recovery in areas where waterflooding and miscible gas flooding could be economically challenged due to poor reservoir quality.

Two injection wells are proposed for the unit. The 08-34-008-28W1 (08-34) is an existing producer that will be converted to an injector. In July 2014, the 02/16-34-008-28W1 (02/16-34) proposed horizontal injector was drilled between 09-34 and 16-34-008-28W1. The new horizontal well was not fracture stimulated unlike the 08-34 future injector.

Tundra plans to inject water prior to gas in both wells to allow the reservoir pressure to build up without the risk of early gas breakthrough. Due to 08-34 having spent several years as a producer, Tundra expects the voidage around this wellbore to take a bit longer

to fill up. Tundra plans to alternate water and gas injection in the two injection wells. The duration and frequency between the WAG cycles will depend on:

- the well's injectivity to each substance (water and nitrogen),
- production response from the offset producers, and
- the capacity of the nitrogen generating equipment being reached.

Water injection began in Ewart Unit No. 5 in March 2015, after the conversion of the 08-34 and 02/16-34 existing horizontal producers to injection wells. Tundra commenced gas injection in the 02/16-34 well and in the 08-34 well in September 2015 and February 2016, respectively.

Production performance by injector pattern is summarized in Appendix A.

Any future revisions to the waterflood development or surveillance plan would be based on new production or performance response data, technical studies, or observed reservoir behavior and reserves recovery interpretations.

Waterflood EOR Operating Strategy and Performance

N_2 Source

The N_2 for this pilot will be generated on site through an N_2 PSA Generator. In general transporting liquid nitrogen is much more difficult than CO_2 due to its low boiling point temperature. This unit filters the N_2 from the atmosphere and compresses and stores it on site.

Water Source and Quality

The injection water for Ewart Unit No. 5 was sourced from the 02/16-32-007-29W1 well (Lodgepole formation) until June 2016 when it was switched over to the newly recompleted source water well at 02/14-30-007-28W1 (Mannville formation). The water is treated at the 04-01-008-29W1 filtration plant where it is filtered to 0.1 microns and has scale inhibitor and biocide added. The injection water is then distributed to the injectors through the dedicated infrastructure system.

Injection Wellhead Pressures

Water injection started in this Unit in March 2015. The average monthly wellhead injection pressure for each injector is summarized in Appendix B. Since injection in this Unit is still in the early stages, the injectors are still building up to a target injection pressure of 7 000 kPaa for water injection and 13 200 kPaa for gas injection.

Reservoir Pressure

Where practical, Tundra is committed to collecting pressure data from newly drilled injection wells. For Ewart Unit No. 5, pressure data is currently available for the 02/16-34 location. A summary table is presented in Appendix C. Pressures are corrected to a common datum of -450 m SS for comparison with other units in the area.

Well Servicing

The following table summarizes the well servicing performed within Ewart Unit No. 5 in 2016:

100.01-34-008-28W1.00	Pump Change	1/20/2016

Waterflood Performance Discussion

At the end of 2016, Ewart Unit No. 5 had 2 injection patterns in place. In 2015, the 2 horizontal producers, 08-34 and 02/16-34-008-28W1 were converted to injectors. This unit will have a combination of waterflood patterns at 20 acre and 40 acre spacing having utilized the existing horizontal wells in the area.

Tundra expects to alternate N_2 and water injection every 1-6 months to optimize the flood front and minimize gas channeling and breakthroughs. The initial Voidage Replacement Ratio (VRR) is expected to be approximately 1.25 to 3.00 within the patterns during the fill up period. As the cumulative VRR approaches 1, target reservoir operating pressure for waterflood operations will be 75-90% of original reservoir pressure.

A summary table of the injector pattern(s) is presented in Appendix A. Plots of the production are presented in Appendix D for each of the injection pattern(s).

Appendix A

Ewart Unit No. 5 Injection Pattern Summary as of December 2016

Pattern Name	Injector BH Location (008-28W1)	Injector Surf. Location (008-28W1)	Status	No. of Supported Wells	Supported Wells (008-28W1)	Allocation Factor	Pattern Prod Start Month	Inj Start Month	Oil Rate (sm^3/d)	Water Rate (sm^3/d)	WOR (m^3/m^3)	Water Injection (sm^3/d)	N2 Injection (rm^3/d)	N2 Injection (sm^3/d)	Cum Oil (E^3m^3)	Cum Water (E^3m^3)	Cum Inj Water (E^3m^3)	Cum Inj N2 (rE^3m^3)	Cum Inj N2 (sE^3m^3)	Monthly VRR	Cum VRR
00/08-34-008-28W1 Injector	00/08-34	00/05-34	WTR & N2 Injection	2	01-34, 09-34	0.5	Jul 2008	Mar 2015 (Wtr Inj) Feb 2016 (N2 Inj)	2.2	0.9	0.42	0.0	15.2	1024.2	18.8	30.1	8.8	3.6	0.0	1.510	0.249
02/16-34-008-28W1 Injector	02/16-34	02/13-34	WTR & N2 Injection	2	09-34,16-34	0.5	Jul 2009	Mar 2015 (Wtr Inj) Sep 2015 (N2 Inj)	2.1	0.8	0.39	0.0	20.1	1354.8	10.7	12.8	0.7	4.3	50.9	1.790	0.207

Appendix B

Average Monthly Injection Pressure (kPag)

Date	100/08-34	102/16-34
01/01/2015	0	0
02/01/2015	0	0
03/01/2015	19	1
04/01/2015	-77	2180
05/01/2015	-81	3179
06/01/2015	-80	3221
07/01/2015	-78	109
08/01/2015	-79	3969
09/01/2015	-81	6702
10/01/2015	432	6540
11/01/2015	1124	6913
12/01/2015	2025	6696
01/01/2016	2606	5835
02/01/2016	6309	7544
03/01/2016	7235	6053
04/01/2016	6703	5730
05/01/2016	6338	6598
06/01/2016	6358	6993
07/01/2016	6259	6231
08/01/2016	5964	5084
09/01/2016	5874	5010
10/01/2016	6344	6279
11/01/2016	6131	6083
12/01/2016	5922	6679

APPENDIX C

Ewart Unit No. 5 - Pressure Summary

Location	Test Date	Final Pressure (kPaa)	MPP (mTVD)	KB	Datum Depth	Gradient	Pressure @ -450 masl
102/16-34-008-28W1/02	July 29th - Sept 7th, 2014	3402.9	874.9	484.5	-450	8.25	3895

Appendix D

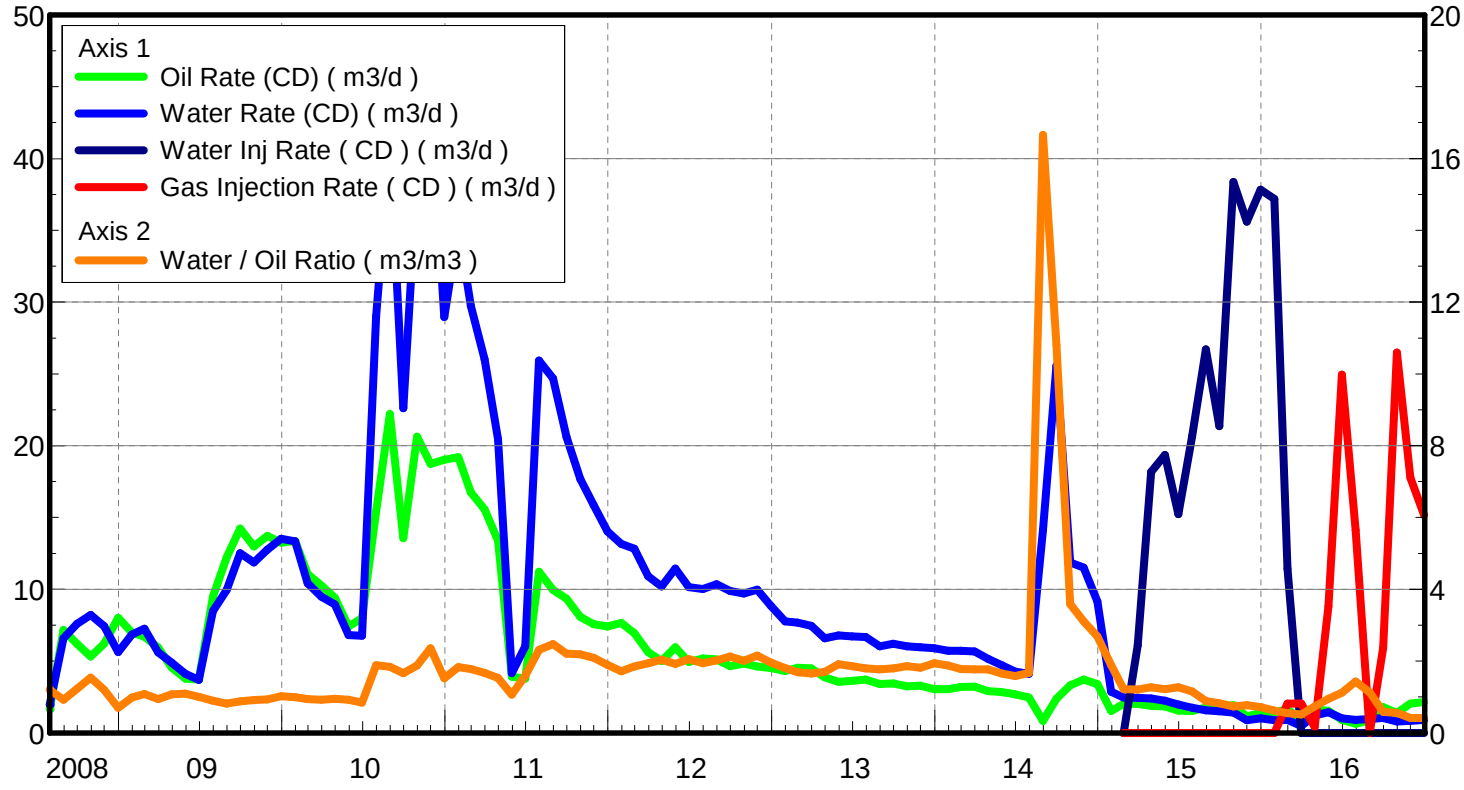
Rates and VRR Plots

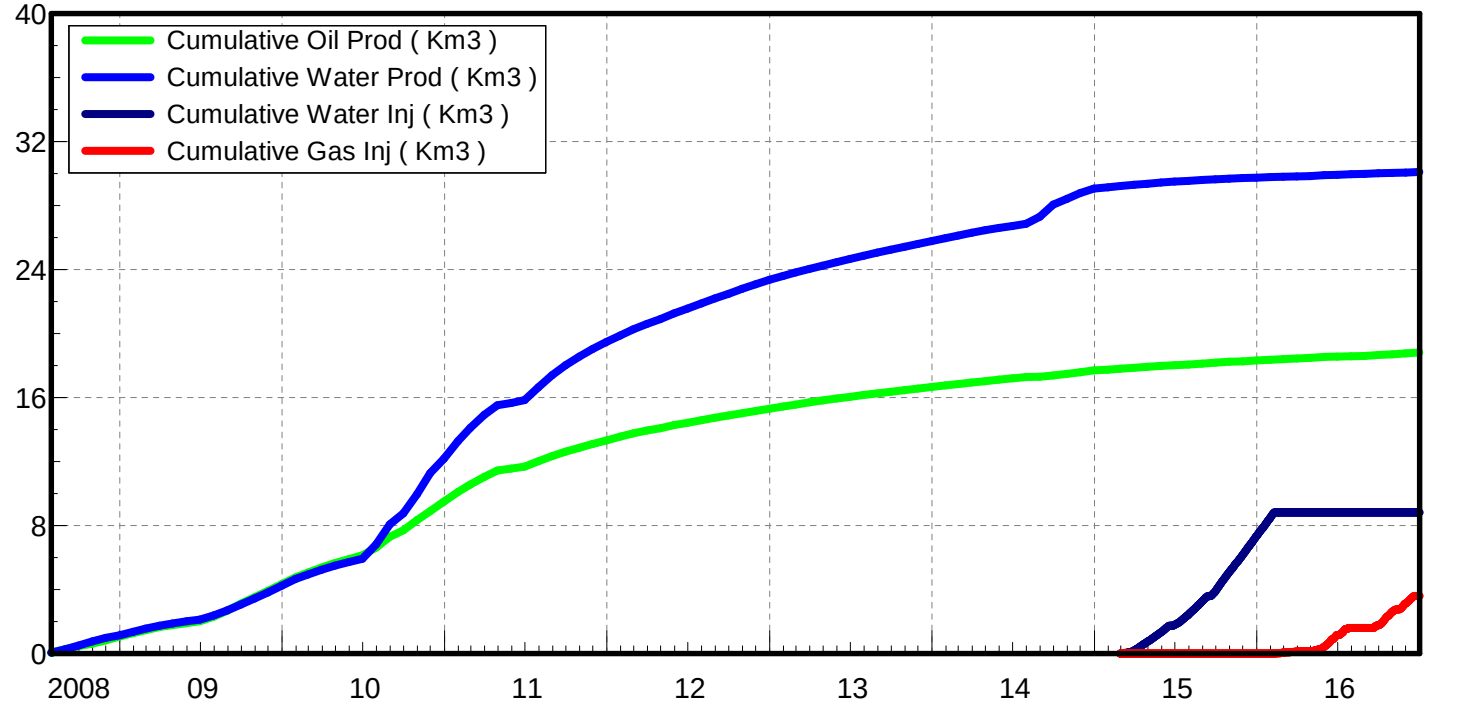
Pattern: 00/08-34-008-28Inj Set: EwartUnit#5

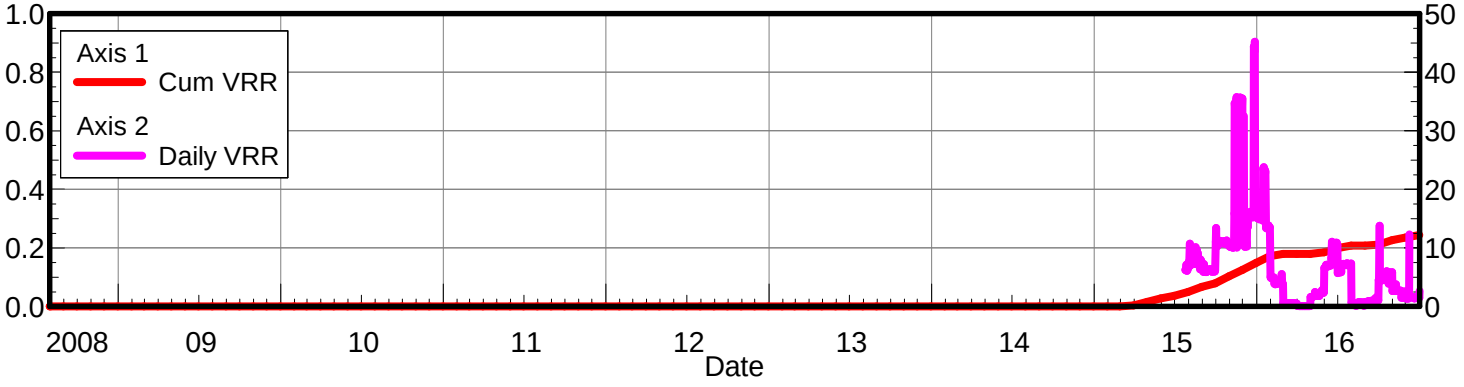
Oil Formation Vol Factor : 1.07100 m3/m3
Water Formation Vol Factor : 1.00150 m3/m3
Water / Oil Ratio : 0.42 m3/m3

July 27, 2017
Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 2.13 m3/d
Water Rate (CD) : 0.92 m3/d
Water Inj Rate (CD) : 29.33 m3/d





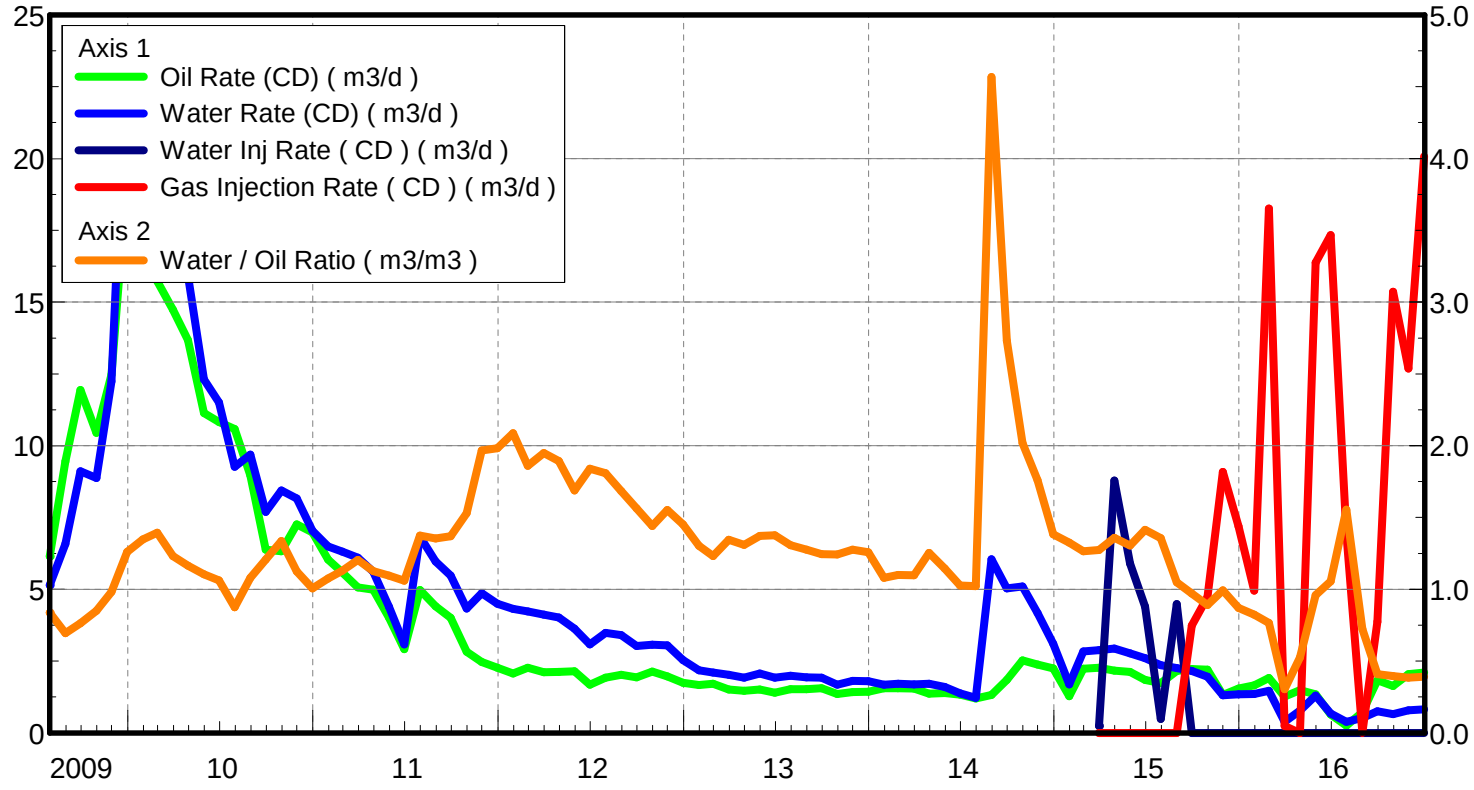


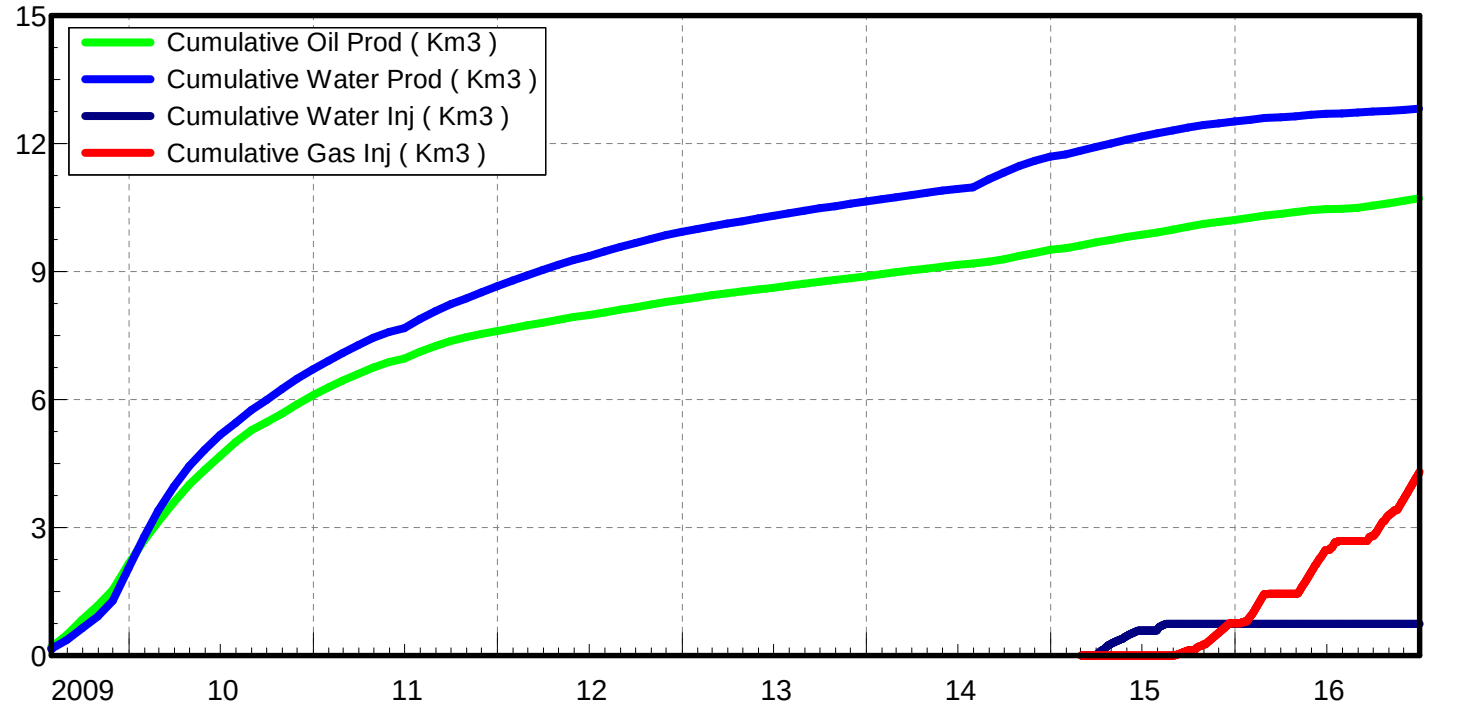
Pattern: 02/16-34-008-28Inj Set: EwartUnit#5

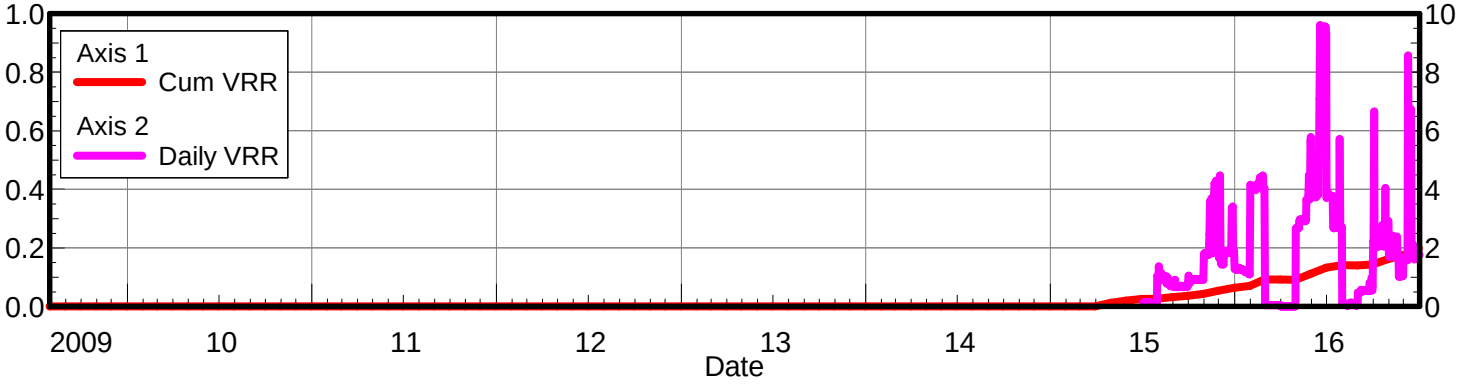
Oil Formation Vol Factor : 1.07100 m3/m3
Water Formation Vol Factor : 1.00150 m3/m3
Water / Oil Ratio : 0.54 m3/m3

July 06, 2017
Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 0.78 m3/d
Water Rate (CD) : 0.19 m3/d
Water Inj Rate (CD) : 1590.07 m3/d







List of Appendices

Table No. 1

	00/08-34-008-28W1/0			02/16-34-008-28W1/2		
	Avg Gas Inj (sm3/d)	Avg Gas Inj (rm3/d)*	Wtr Inj (rm3/d)	Avg Gas Inj (sm3/d)	Avg Gas Inj (rm3/d)*	Wtr Inj (rm3/d)
Feb-15	0.00	0.00	0.00	0.00	0.00	0.00
Mar-15	0.00	0.00	6.10	0.00	0.00	2.47
Apr-15	0.00	0.00	18.17	0.00	0.00	8.79
May-15	0.00	0.00	19.35	0.00	0.00	5.90
Jun-15	0.00	0.00	15.23	0.00	0.00	4.40
Jul-15	0.00	0.00	20.65	0.00	0.00	0.48
Aug-15	0.00	0.00	26.71	0.02	0.00	4.48
Sep-15	0.00	0.00	21.37	252.14	3.74	0.00
Oct-15	0.00	0.00	38.35	319.49	4.73	0.00
Nov-15	0.00	0.00	35.60	613.62	9.09	0.00
Dec-15	0.00	0.00	37.84	485.16	7.19	0.00
Jan-16	0.00	0.00	37.19	334.22	4.95	0.00
Feb-16	138.22	2.05	11.45	1232.23	18.26	0.00
Mar-16	137.78	2.04	0.00	15.93	0.24	0.00
Apr-16	28.14	0.42	0.00	0.00	0.00	0.00
May-16	595.63	8.83	0.00	1104.90	16.37	0.00
Jun-16	1683.62	24.95	0.00	1169.49	17.33	0.00
Jul-16	953.47	14.13	0.00	469.66	6.96	0.00
Aug-16	88.57	1.31	0.00	20.59	0.31	0.00
Sep-16	399.75	5.92	0.00	261.24	3.87	0.00
Oct-16	1787.15	26.48	0.00	1036.88	15.37	0.00
Nov-16	1199.04	17.77	0.00	856.27	12.69	0.00
Dec-16	1024.17	15.18	0.00	1354.76	20.08	0.00

Table No. 2

WELL	Date	Mth_Inj_N2 (kgs)	Mth_Inj_N2* (rm3)	Mth_Inj_Water (rm3)	Avg_ WH_Inj_Pressure (kPa)
00/08-34-008-28W1/0	03/01/2015	0	0	189	19
00/08-34-008-28W1/0	04/01/2015	0	0	545	-77
00/08-34-008-28W1/0	05/01/2015	0	0	600	-81
00/08-34-008-28W1/0	06/01/2015	0	0	457	-80
00/08-34-008-28W1/0	07/01/2015	0	0	640	-78
00/08-34-008-28W1/0	08/01/2015	0	0	828	-79
00/08-34-008-28W1/0	09/01/2015	0	0	641	-81
00/08-34-008-28W1/0	10/01/2015	0	0	1189	432
00/08-34-008-28W1/0	11/01/2015	0	0	1068	1124
00/08-34-008-28W1/0	12/01/2015	0	0	1173	2025
00/08-34-008-28W1/0	01/01/2016	0	0	1153	2606
00/08-34-008-28W1/0	02/01/2016	4730	59	332	6309
00/08-34-008-28W1/0	03/01/2016	5040	63	0	7235
00/08-34-008-28W1/0	04/01/2016	996	13	0	6703
00/08-34-008-28W1/0	05/01/2016	21788	274	0	6338
00/08-34-008-28W1/0	06/01/2016	59600	748	0	6358
00/08-34-008-28W1/0	07/01/2016	34878	438	0	6259
00/08-34-008-28W1/0	08/01/2016	3240	41	0	5964
00/08-34-008-28W1/0	09/01/2016	14151	178	0	5874
00/08-34-008-28W1/0	10/01/2016	65374	821	0	6344
00/08-34-008-28W1/0	11/01/2016	42446	533	0	6131
00/08-34-008-28W1/0	12/01/2016	37464	470	0	5922
02/16-34-008-28W1/2	03/01/2015	0	0	7	1
02/16-34-008-28W1/2	04/01/2015	0	0	264	2180
02/16-34-008-28W1/2	05/01/2015	0	0	183	3179
02/16-34-008-28W1/2	06/01/2015	0	0	132	3221
02/16-34-008-28W1/2	07/01/2015	0	0	15	109
02/16-34-008-28W1/2	08/01/2015	0	0	139	3969
02/16-34-008-28W1/2	09/01/2015	8926	112	0	6702
02/16-34-008-28W1/2	10/01/2015	11687	147	0	6540
02/16-34-008-28W1/2	11/01/2015	21722	273	0	6913
02/16-34-008-28W1/2	12/01/2015	17747	223	0	6696
02/16-34-008-28W1/2	01/01/2016	12226	154	0	5835
02/16-34-008-28W1/2	02/01/2016	42167	530	0	7544
02/16-34-008-28W1/2	03/01/2016	583	7	0	6053
02/16-34-008-28W1/2	04/01/2016	0	0	0	5730
02/16-34-008-28W1/2	05/01/2016	40417	508	0	6598
02/16-34-008-28W1/2	06/01/2016	41400	520	0	6993
02/16-34-008-28W1/2	07/01/2016	17180	216	0	6231
02/16-34-008-28W1/2	08/01/2016	753	9	0	5084
02/16-34-008-28W1/2	09/01/2016	9248	116	0	5010
02/16-34-008-28W1/2	10/01/2016	37929	476	0	6279
02/16-34-008-28W1/2	11/01/2016	30312	381	0	6083
02/16-34-008-28W1/2	12/01/2016	49557	622	0	6679

*7.0 MPa @ 30 oC