

SINCLAIR UNIT NO. 2
WATERFLOOD EOR PROJECT

ANNUAL REPORT FOR 2016

July 28, 2017

Tundra Oil and Gas Partnership

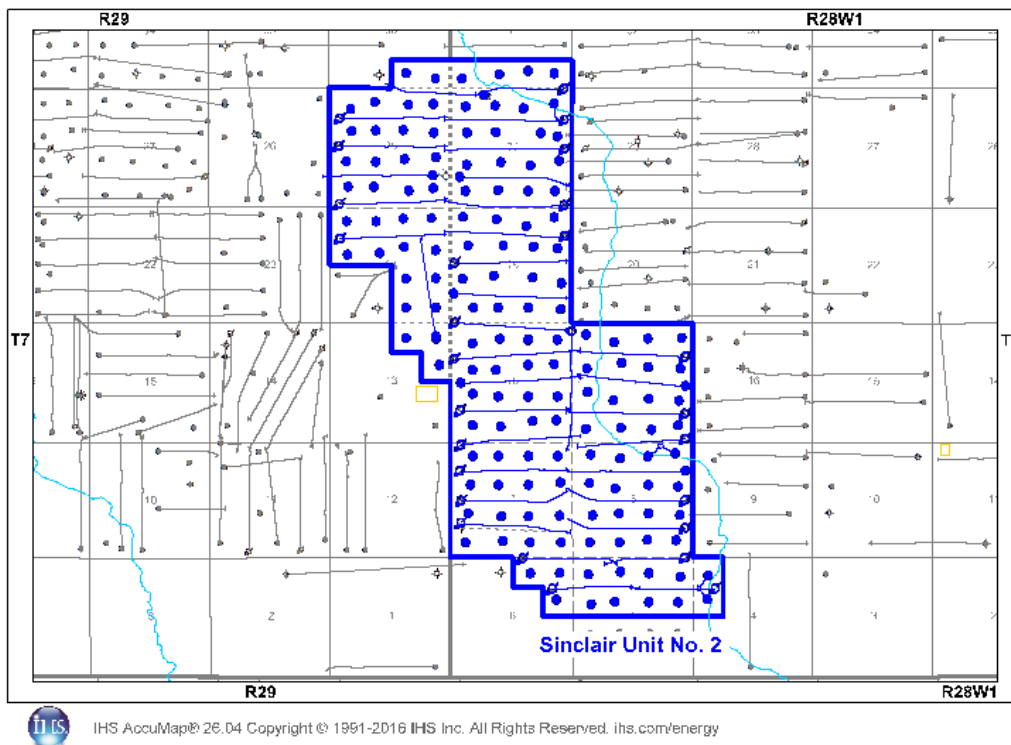
Table of Contents

Introduction	3.
Discussion	3.
Production History	3.
Waterflood Development Plan	5.
Waterflood EOR Operating Strategy and Performance	6.
Water Source and Quality	6.
Injection Wellhead Pressures	6.
Reservoir Pressure	6.
Well Servicing	6.
Voidage Replacement	7.
Waterflood Performance Discussion	7.
List of Appendices	8.
Appendix A: Monthly Injection Wellhead Pressures	
Appendix B: Sinclair Unit No. 2 Reservoir Pressure Summary	
Appendix C: Sinclair Unit No. 2 Injection Pattern Summary	
Appendix D: Injector Pattern Production/Injection Rates, Cumulative and VRR Plots	

INTRODUCTION

Sinclair Unit No. 2 Enhanced Oil Recovery (EOR) Waterflood Project was approved under Waterflood Order No. 17 effective January 1, 2010 with Tundra Oil and Gas (Tundra) as Operator. The EOR project area contains 154 producing and 26 injection wells in just over 9 sections in Township 7, Ranges 28 and 29 W1 as shown in the figure below.

Figure 1: Sinclair Unit No. 2 Area Outline



In accordance with Section 73 of the Manitoba Drilling and Production Regulation, Tundra hereby submits the following 2016 Annual Progress Report for Sinclair Unit No. 2 as required by Waterflood Order No 17.

DISCUSSION

Production History

For the wells included in Sinclair Unit No. 2, production started in August 2004 with the 00/08-25-007-29W1 well. Oil production peaked at an average of 3.8 m³/d per well, in January 2008. This production was coming from 127 wells and totaled 481 m³/d for the whole Unit. For the next 3 years production declined while the water oil ratio (WOR)

remained steady, averaging $0.51 \text{ m}^3/\text{m}^3$. Water injection began in November 2010. Water injection rates were $386.9 \text{ m}^3/\text{d}$ in December 2016, through 26 wells. In December 2016, the Unit was producing $157.6 \text{ m}^3/\text{d}$ of oil and $115.8 \text{ m}^3/\text{d}$ of water. The rates and WOR are presented in Figure 2.

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

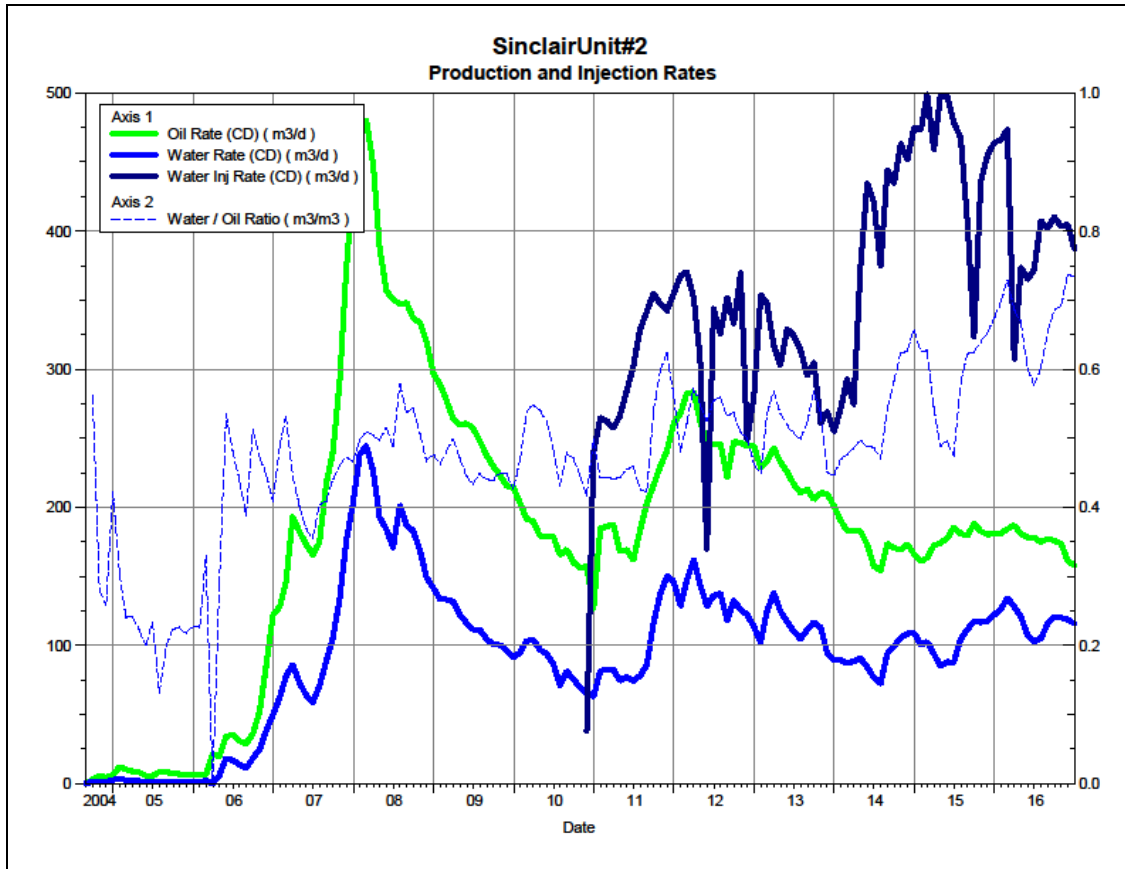
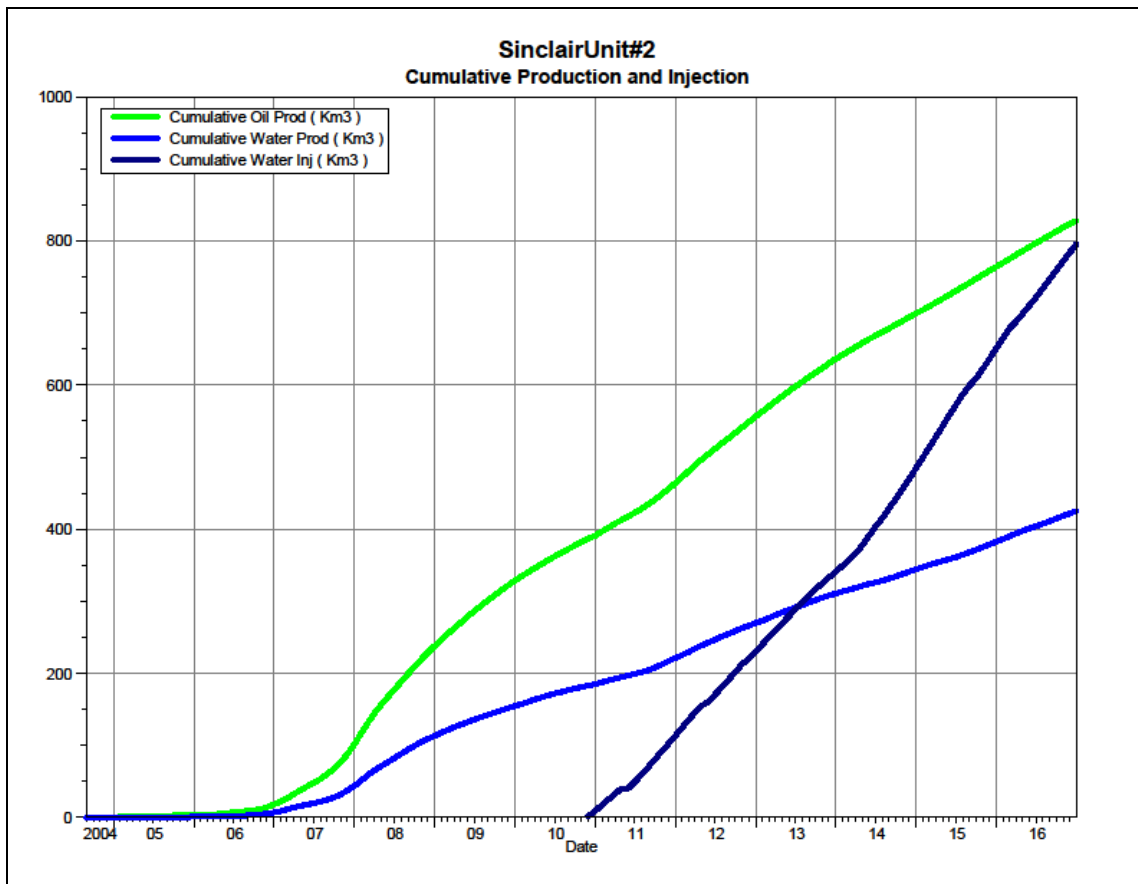


Figure 3 shows the cumulative production for Sinclair Unit No. 2 to the end of December 2016 as $828.3 \text{ e}^3\text{m}^3$ of oil, and $425.5 \text{ e}^3\text{m}^3$ of water, representing 14.0 % recovery factor of the OOIP. The cumulative water injected is $795.5 \text{ e}^3\text{m}^3$.

Figure 3: Sinclair Unit No. 2 Cumulative Oil, Water and Water Injected vs Time



Waterflood Development Plan

Sinclair Unit No. 2 Waterflood (WF) Development Plan

Sinclair Unit No. 2 is still in the early stages of water injection, with injection just beginning in November 2010. As of December 2016, the Unit has 26 active horizontal injectors and 8 proposed injectors on production. Tundra anticipates converting the 03/04-19 and 03/14-30-007-28W1 wells to injection in 2017. Tundra expects to convert the remaining 6 proposed injectors in 2018/2019 subject to rig availability and reservoir performance. All injection wells are fracture stimulated to improve the injection rates.

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

Water Source and Quality

The injection water for Sinclair Unit No. 2 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

The monthly wellhead injection pressures for each injection well are summarized in Appendix A. Since injection in this Unit is still in the early stages a few of the injectors show very low wellhead pressure, this is due to the low reservoir pressures in the pattern area. As fill-up occurs the wellhead pressures begin to register.

Reservoir Pressure

Tundra is committed to collecting pressures from every new openhole injection well drilled. It is not possible to collect a meaningful pressure for wells completed as cemented liners. Currently, for Sinclair Unit No. 2 the pressure data from 24 locations is available. Appendix B summarizes these results. The pressures were corrected to a common datum of -450 m SS for comparison. The table shows quite a range in pressure, from a low of 2700 kPaa to a high of 7400 kPaa. These values appear reasonable given their location in the pool and the corresponding production voidage in the surrounding area.

Well Servicing

The following table summarizes the well servicing performed within Sinclair Unit No. 2 during 2016:

100.14-17-007-28W1.00	1/14/2016	Tubing Leak
100.11-17-007-28W1.00	1/15/2016	Hot Oil Job / Pump Change
100.06-17-007-28W1.00	2/2/2016	Hot Oil / Tubing Leak
102.12-04-007-28W1.00	2/16/2016	WIW Packer Repair
100.06-30-007-28W1.00	3/1/2016	Bakken Vertical Acid Stimulation
102.16-18-007-28W1.00	3/9/2016	OH Add-Frac
100.06-25-007-29W1.00	3/9/2016	Suspended
100.08-08-007-28W1.00	9/29/2016	Pump Change / 1.5m3 Acid Job
102.01-30-007-28W1.00	11/15/2016	Packer Repair

Voidage Replacement

Tundra injects water for a minimum 1-3 year period to re-pressurize the reservoir due to cumulative primary production voidage and corresponding pressure depletion. During the initial fill-up period, the instantaneous voidage replacement ratio (VRR) ranges between 2 and 5 and averages approximately 1.25 to 2.0 by individual patterns. The injector pattern VRRs will be discussed in the waterflood performance section of the report.

Waterflood Performance Discussion

At the end of 2016, Sinclair Unit No. 2 waterflood area had 34 injection wells drilled, 26 of these wells are injecting into the Unit and 8 wells are still producing. Water injection started in mid-November 2010 at the 02/09-30 injector. Since a quarter of the proposed future injectors were producing at the end of 2016, waterflood performance analysis will not be relevant for at least another couple of years.

A summary table of the injector patterns is presented in Appendix C. Plots of the production and injection data along with the VRR information are presented in Appendix D for each of the injector patterns.

List of Appendices

Appendix A: Monthly Injection Wellhead Pressures

Appendix B: Sinclair Unit No. 2 Reservoir Pressure Summary

Appendix C: Sinclair Unit No. 2 Injection Pattern Summary

Appendix D: Injector Pattern Production/Injection Rates, Cumulative and VRR Plots for
the following injectors:

02/12-04-007-28W1
02/16-05-007-28W1
02/09-06-007-28W1
02/15-06-007-28W1
02/05-07-007-28W1
03/05-07-007-28W1
02/12-07-007-28W1
02/13-07-007-28W1
02/08-08-007-28W1
03/08-08-007-28W1
02/01-17-007-28W1
03/01-17-007-28W1
02/09-17-007-28W1
02/05-18-007-28W1
02/12-18-007-28W1
02/04-19-007-28W1
02/12-19-007-28W1
03/16-19-007-28W1
02/01-30-007-28W1
02/08-30-007-28W1
02/09-30-007-28W1
02/16-30-007-28W1
02/15-13-007-29W1
02/12-24-007-29W1
02/04-25-007-29W1
02/12-25-007-29W1
03/12-25-007-29W1

Appendix A

Average Monthly Injection Pressure (kPag)

Month	Injection Pressure									
	Section 04	Section 05	Section 06		Section 07				Section 08	
	102/12-04	102/16-05	102/09-06	102/15-06	102/05-07	103/05-07	102/12-07	102/13-07	102/08-08	103/08-08
Nov-10	0	0	0	0	0	0	0	0	0	0
Dec-10	0	0	0	0	0	0	0	0	0	0
Jan-11	0	0	0	0	0	0	0	0	0	0
Feb-11	0	0	0	0	0	0	1627	0	0	0
Mar-11	0	0	0	0	0	0	2595	0	0	0
Apr-11	0	0	0	0	0	0	3525	0	0	0
May-11	0	0	0	0	0	0	3897	0	0	0
Jun-11	0	0	0	0	0	0	4463	0	0	0
Jul-11	0	0	0	0	0	0	4968	0	0	0
Aug-11	0	0	0	0	0	0	5098	0	0	0
Sep-11	0	0	0	0	0	0	5373	13	0	0
Oct-11	0	0	0	0	0	0	5469	387	0	0
Nov-11	0	0	0	0	0	0	5490	660	0	0
Dec-11	0	0	0	0	0	0	5713	1406	0	0
Jan-12	0	0	0	0	0	0	6111	2200	0	0
Feb-12	0	0	0	0	0	0	6101	3100	0	0
Mar-12	0	0	0	0	0	0	6004	3916	0	0
Apr-12	0	0	0	0	0	0	6015	4594	0	0
May-12	0	0	0	0	0	0	4033	2761	0	0
Jun-12	0	0	0	0	0	0	6058	4895	0	0
Jul-12	0	0	0	0	0	0	5988	4755	0	0
Aug-12	0	0	0	0	0	0	6141	5420	0	0
Sep-12	0	0	0	0	0	0	5915	5391	0	0
Oct-12	0	0	0	0	0	0	6203	6164	0	0
Nov-12	0	0	0	0	0	0	5341	5416	0	0
Dec-12	0	0	0	0	0	0	5319	5633	0	0
Jan-13	0	0	0	0	0	0	6044	6273	0	0
Feb-13	0	0	0	0	0	0	6008	6246	0	0
Mar-13	0	0	0	0	0	0	6151	6274	0	0
Apr-13	0	0	0	0	0	0	6235	6283	0	0
May-13	0	0	0	0	0	0	6257	6263	0	0
Jun-13	0	0	0	0	0	0	6278	6270	0	0
Jul-13	0	0	0	0	0	0	6282	6266	0	0
Aug-13	0	0	0	0	0	0	6265	5883	0	0
Sep-13	0	0	0	0	0	0	6257	5192	0	0
Oct-13	0	0	0	0	0	0	6069	6031	0	0
Nov-13	0	0	0	0	0	0	6290	6278	0	0
Dec-13	0	0	0	0	0	0	6220	6279	0	0
Jan-14	0	0	0	0	-22	0	6120	6289	0	-13
Feb-14	0	0	0	0	-41	0	5958	6289	0	-38
Mar-14	0	0	0	0	-87	0	5079	6289	0	-82
Apr-14	0	0	0	0	-89	17	5321	557	46	-85
May-14	12	0	0	0	-88	-48	4906	730	-15	-85
Jun-14	-80	123	60	34	-87	-84	5672	1353	-80	-83
Jul-14	-80	176	85	35	-85	98	5634	1624	-80	-81
Aug-14	-67	1168	887	87	63	1202	5628	2315	-79	-82
Sep-14	-67	1168	887	87	1090	2591	5736	2731	-78	-90
Oct-14	-67	1168	887	87	2000	3417	5509	3037	-77	44
Nov-14	-67	1168	887	87	2629	3695	5646	3056	-73	152
Dec-14	-67	1168	887	87	3066	3995	5618	3276	-68	-77
Jan-15	322	1781	1513	137	2990	4465	5851	3434	-67	-77
Feb-15	2035	4501	4593	509	3197	4680	5583	3630	29	821
Mar-15	2031	4379	4531	1124	2158	4701	5183	4071	542	1702
Apr-15	2521	4731	4859	1991	4004	4965	5264	4841	1093	2300
May-15	2906	4841	4905	2462	4364	4948	5274	5184	1530	3133
Jun-15	3705	4772	4838	3282	4792	5110	5270	5281	2676	3685
Jul-15	2895	5061	5121	3883	4975	5392	5578	5550	3471	4249
Aug-15	3972	5053	5197	4132	4784	5165	5722	5525	2777	4408
Sep-15	3403	4336	4793	3780	4483	4892	5147	4433	2525	4408
Oct-15	4474	3208	5479	4696	4977	5641	5919	5815	4078	4313
Nov-15	4726	4537	5199	4902	4988	5401	5652	4467	4481	1051
Dec-15	4369	4842	5099	4923	4959	5294	5336	4601	4654	2709
Jan-16	2201	5142	5215	4981	4985	5357	5417	5509	4841	4413
Feb-16	4422	5054	5138	5040	5087	5237	5299	5262	5006	4846
Mar-16	4442	4331	4495	4345	4406	4463	4632	4187	4319	4239
Apr-16	4442	4813	4998	4796	4798	5130	4853	4556	4977	4914
May-16	4297	4949	5014	4945	4974	5060	5210	5145	4976	4961
Jun-16	44	5457	5506	5438	5502	5613	5684	5689	5528	5502
Jul-16	1116	5754	5831	5775	5812	5964	6012	6110	5868	5845
Aug-16	1697	5897	5870	5893	5987	6106	6168	6233	6025	5973
Sep-16	3056	5918	6028	5949	5981	6109	6166	6267	6076	6016
Oct-16	4163	5903	5848	5948	6031	6173	6225	6250	6114	5987
Nov-16	4279	5691	5765	5728	5807	5919	5872	5936	5887	5782
Dec-16	4686	5748	5976	5789	4905	6136	6092	6164	6088	4738

Appendix A

Average Monthly Injection Pressure (kPag)

Month	Injection Pressure							
	Section 17			Section 18		Section 19		
	102/01-17	103/01-17	102/09-17	102/05-18	102/12-18	102/04-19	102/12-19	103/16-19
Nov-10	0	0	0	0	0	0	0	0
Dec-10	0	0	7	0	7	13	0	0
Jan-11	0	0	123	340	150	0	0	16
Feb-11	0	0	591	1804	1138	0	0	100
Mar-11	97	71	1302	2939	1965	13	0	29
Apr-11	564	733	2193	3658	2690	751	0	0
May-11	1100	1076	2621	4117	3169	1808	0	0
Jun-11	1788	1638	3235	4672	3738	2938	0	405
Jul-11	2900	2958	4123	5010	4469	4084	0	1668
Aug-11	3452	3410	4547	5027	4852	4787	0	2292
Sep-11	3964	3878	4920	5227	5092	5225	0	2895
Oct-11	4450	4221	5000	5500	5379	5500	0	3695
Nov-11	4735	4393	5000	5500	5500	5500	22	3907
Dec-11	4913	4616	5187	5702	5484	5760	449	4066
Jan-12	5019	4752	5503	6181	5498	6210	821	4440
Feb-12	5001	4994	5496	6278	5478	6280	1353	4512
Mar-12	5019	5027	5227	6292	5479	6278	1728	4555
Apr-12	5068	4905	5472	6118	5415	6005	2107	4628
May-12	3553	2680	3054	4818	3440	2862	668	2937
Jun-12	5496	4858	5288	6276	6135	6176	1857	4665
Jul-12	5497	4997	5606	6203	6139	5626	2870	4961
Aug-12	5590	5140	5719	6247	6184	6132	3931	5046
Sep-12	5695	5215	5841	6104	6059	5979	4160	5198
Oct-12	5961	5440	6115	6278	6276	6284	4874	5416
Nov-12	5284	4759	5227	5645	5400	4742	4344	4901
Dec-12	5553	4429	5599	5886	5716	5330	4815	5231
Jan-13	6150	4832	6297	6294	6287	6290	5551	5644
Feb-13	6129	5090	6264	6270	6254	6258	5645	5791
Mar-13	6274	2379	6290	6298	6242	6300	5776	5934
Apr-13	6291	2629	6301	6300	6219	6251	5608	5851
May-13	6285	5011	6308	6302	6301	6297	5189	6118
Jun-13	6268	5308	6298	6300	6287	6242	6221	6142
Jul-13	6289	5460	6302	6274	6297	6279	6241	6224
Aug-13	6238	5574	6271	6280	6250	6202	6197	6189
Sep-13	6252	5614	6230	6276	6243	6160	6225	6122
Oct-13	6003	5582	4929	6050	6041	5973	5976	5952
Nov-13	6290	5803	4052	6299	6251	6044	6292	5777
Dec-13	6271	5839	4052	6291	6195	5166	6288	4914
Jan-14	6279	5931	4197	6272	6294	6288	6286	2643
Feb-14	6198	5723	6300	6272	6291	5297	6286	3690
Mar-14	5768	5404	5492	6070	5727	2467	6029	3788
Apr-14	5506	4766	97	901	6213	219	6211	4522
May-14	5365	4171	-70	2828	5955	1391	6296	4717
Jun-14	5261	3675	95	4474	4454	2112	6297	4745
Jul-14	4928	3573	761	4897	0	2210	6215	4763
Aug-14	5093	3605	1422	5437	-52	2954	6296	5130
Sep-14	5204	2676	1243	5712	-86	3387	6296	5291
Oct-14	5190	2278	1439	5744	-81	3871	6286	5232
Nov-14	5121	2150	1481	5884	-45	3992	6286	5072
Dec-14	5085	2038	1579	5957	311	4114	6291	5307
Jan-15	5166	2051	1591	6116	1086	4214	6258	5211
Feb-15	5240	1988	1619	6083	816	4296	6280	5276
Mar-15	5052	1854	1651	5603	1078	4400	6182	5525
Apr-15	5322	1878	2409	5697	1482	4609	6271	5985
May-15	5276	1683	3018	5742	1761	4414	6276	6183
Jun-15	5174	1343	3216	5660	1705	4758	6232	6064
Jul-15	5259	1099	3359	5890	1618	4243	6326	5978
Aug-15	4945	1629	3371	5862	5401	4243	6251	5776
Sep-15	4212	1082	2995	5616	3988	1425	4500	4951
Oct-15	4483	1162	4000	6039	969	2764	6283	4949
Nov-15	4606	1628	4356	5828	2081	5179	6176	5033
Dec-15	4364	1287	4234	5674	1796	5834	6256	4974
Jan-16	4289	1515	4578	5694	2165	5934	6279	5139
Feb-16	4182	1585	4252	5567	2106	5963	6271	5585
Mar-16	3632	1114	3955	4973	1784	4910	5608	4774
Apr-16	3617	1615	4135	5196	2215	5597	5602	4574
May-16	4117	1454	4855	5358	3157	5611	5700	4594
Jun-16	4910	1666	5436	5949	3855	6155	6148	4924
Jul-16	3819	1859	5433	6243	4297	6270	6279	4908
Aug-16	4250	1844	4929	6269	4595	6270	6274	4945
Sep-16	4034	1940	4928	6268	4582	6269	6269	5172
Oct-16	4069	1955	5020	6267	4217	6251	6267	5274
Nov-16	5329	3892	4950	6174	3838	6190	6204	5653
Dec-16	6239	4794	5072	6259	3812	6247	6258	5857

Appendix A

Average Monthly Injection Pressure (kPag)

Month	Injection Pressure							
	Section 30				Section 24	Section 25		
	102/01-30	102/08-30	102/09-30	102/16-30	102/12-24	102/04-25	102/12-25	103/12-25
Nov-10	0	0	0	0	0	0	0	0
Dec-10	0	0	0	0	381	0	0	0
Jan-11	0	0	0	0	2021	58	0	394
Feb-11	0	0	0	0	2929	716	0	1443
Mar-11	0	0	0	0	3718	1361	0	2160
Apr-11	0	0	0	0	4000	1950	43	2860
May-11	0	0	0	0	4314	2569	419	3386
Jun-11	0	0	442	0	4823	3352	1103	4127
Jul-11	0	0	1834	0	5000	4155	1981	4927
Aug-11	0	0	2255	0	5000	4358	2487	5000
Sep-11	0	0	2159	0	5147	4908	2912	5001
Oct-11	0	31	3019	0	5465	5015	3218	5053
Nov-11	0	815	3295	0	5500	5000	3482	5098
Dec-11	0	1817	3230	0	5676	5187	3947	5211
Jan-12	0	3069	3860	0	5956	5470	4687	5520
Feb-12	0	3820	4318	0	6282	5425	4986	5497
Mar-12	0	4177	4413	0	6262	5477	4989	5388
Apr-12	0	4513	4287	0	6194	5583	4645	5364
May-12	0	2993	1721	0	5224	4437	2949	4253
Jun-12	0	4916	3577	0	6237	5966	4462	5447
Jul-12	0	4822	4071	0	6218	6174	4989	5427
Aug-12	0	5474	4838	0	6245	6054	5314	6018
Sep-12	0	5970	5090	0	6157	6161	4964	6203
Oct-12	0	6186	5598	0	6251	6288	5654	6249
Nov-12	0	4811	4785	0	4605	4430	4972	5738
Dec-12	0	5014	5320	0	2873	2569	5465	5870
Jan-13	0	5702	6023	0	2603	1683	6151	6297
Feb-13	0	5935	6046	0	3571	2288	6044	6289
Mar-13	0	6136	6234	0	4966	4711	5412	6255
Apr-13	0	5876	6177	0	5543	5458	3475	6139
May-13	0	2863	6295	0	6283	6158	2706	6281
Jun-13	0	-73	6285	0	6280	6129	4683	5997
Jul-13	0	-88	6229	0	6281	6297	5899	5439
Aug-13	0	-88	2946	0	6276	6279	5999	3599
Sep-13	0	-88	666	0	6252	6272	6084	4607
Oct-13	0	-88	382	0	6069	6111	5966	5265
Nov-13	0	-88	382	0	6277	6291	6272	6135
Dec-13	0	-88	382	0	6275	6291	6283	6283
Jan-14	0	-88	382	0	6275	6290	6277	6291
Feb-14	0	-54	85	0	6275	6292	6283	6295
Mar-14	0	-36	484	0	6001	6027	4985	5615
Apr-14	0	461	3135	0	6264	6283	6273	6180
May-14	0	1802	4732	0	6282	6298	6291	6303
Jun-14	0	2631	5074	0	6250	6103	6296	6306
Jul-14	0	2895	4102	0	6150	1406	5729	6169
Aug-14	0	3759	3922	0	6187	15	5993	6309
Sep-14	0	1071	3955	0	6281	1085	6255	6300
Oct-14	0	2711	4189	0	6269	1663	6261	6301
Nov-14	-56	3790	4288	4	6269	1948	6265	6289
Dec-14	-87	4311	4526	-58	6276	2377	6242	6190
Jan-15	-87	4603	4462	-76	6274	2722	6095	6295
Feb-15	-87	4849	4494	301	6270	2935	6284	6294
Mar-15	-88	4874	4490	1369	6172	3161	6045	6258
Apr-15	61	5195	4537	2408	6269	3820	6182	6216
May-15	823	5595	4853	2529	6290	4119	6279	6335
Jun-15	2009	5804	5754	2696	6121	4335	6126	6293
Jul-15	2980	6037	5473	3926	6274	4519	6297	6300
Aug-15	2888	5749	288	4220	6225	4661	6222	6279
Sep-15	2458	5557	-16	3890	5938	4416	5792	5836
Oct-15	2991	6272	-19	4775	6280	4880	6282	4783
Nov-15	2990	4426	-21	4991	6158	5041	6265	5784
Dec-15	2977	5517	-21	4980	6271	5103	6281	6292
Jan-16	3126	6262	-13	5028	6285	5331	6287	6295
Feb-16	4488	6168	-14	5399	6287	5565	6305	6297
Mar-16	4624	5628	518	5032	5578	5287	5769	5657
Apr-16	4947	6007	-19	5613	5867	5487	5988	5857
May-16	4896	5928	-18	5447	5768	5741	5927	6017
Jun-16	4934	6209	-14	4361	5980	5417	6222	6234
Jul-16	4911	6234	-14	6191	6236	6256	6255	6237
Aug-16	4968	6275	-14	6262	6272	6266	6271	6274
Sep-16	4975	5585	-16	6268	6270	6270	6269	6336
Oct-16	4966	6219	-17	6129	6247	6254	6065	6260
Nov-16	3536	6216	-17	6210	6228	6234	6237	6251
Dec-16	2432	6249	-15	6251	5288	5426	6256	6244

Appendix B

Sinclair Unit #2 - Pressure Summary

Sinclair Horizontal Well Pressures

-450 m SS (datum depth)
8.25 kPa/m (pressure gradient)
93 kPa added to gauge pressure

Location	KB m	Open Hole	mKB		mTVD	MPP mKB	MPP mTVD	MPP mSS	Last Stable P	Pres @ MPP (kPa)	Corrected to Datum	Start Date	End Date	Shut-in (days)	Last Temp °C
102/12-04-007-28W1/00	493.72	1102.50	2066.00	971.15	978.57	1584.25	974.86	-481.14	3937	4090	3833	13-Aug-11	27-Aug-11	14	34.0
102/16-05-007-28W1/00	497.67	1119.50	1966.00	973.18	975.42	1542.75	974.42	-476.75	4488	4641	4420	30-Jul-11	10-Aug-11	11	33.9
102/09-06-007-28W1/00	491.98	1091.00	2079.00	969.85	977.38	1585.00	973.62	-481.64	4661	4800	4539	19-Aug-11	28-Aug-11	9	34.1
102/15-06-007-28W1/00	497.09	1114.50	2167.00	973.41	980.27	1640.75	976.84	-479.75	3647	3800	3555	6-Aug-11	13-Aug-11	7	34.3
102/05-07-007-28W1/02														0	
103/05-07-007-28W1/00	498.37	1167	2376.0	972.1	980.4	1771.5	976.2	-477.83	4470	4627	4397	17-Nov-11	2-Dec-11	15	33.2
102/12-07-007-28W1/00														0	
102/13-07-007-28W1/00														0	
102/08-08-007-28W1/00														0	
103/08-08-007-28W1/00	500.35	1106.5	2505.0	975.3	970.0	1805.8	972.6	-472.25	3206	3252	3068	8-Dec-11	4-Jan-12	27	33.2
102/09-08-007-28W1/00														0	
102/01-17-007-28W1/00	491.54	1073.50	2487.00	953.46	954.93	1780.25	954.19	-462.65	3644	3792	3688	5-Sep-10	15-Sep-10	10	32.8
103/01-17-007-28W1/00	491.47	1074.00	2332.00	957.42	954.14	1703.00	955.78	-464.31	3326	3478	3360	28-Aug-10	15-Sep-10	18	30.5
102/08-17-007-28W1/00	491.64	1064.00	2238.40	956.90	950.50	1651.20	953.70	-462.06	3508	3659	3560	3-Feb-11	19-Jun-11	136	
102/09-17-007-28W1/00	461.62	1060.50	2317.00	947.75	944.77	1688.75	946.26	-484.64	2833	2983	2697	11-Sep-10	26-Sep-10	15	32.9
102/05-18-007-28W1/00	491.66	1086.50	2370.00	955.47	965.38	1728.25	960.42	-468.76	5118	5270	5115	11-Sep-10	29-Sep-10	18	32.8
103/05-18-007-28W1/02	491.49	1086.50	2370.00	955.50	965.40	1728.50	960.45	-468.96	3351	3506	3350	22-Jan-11	6-Jul-11	165	32.5
102/12-18-007-28W1/00	491.39	1074.00	2580.00	948.78	958.13	1827.00	953.46	-462.07	2730	2880	2780	19-Sep-10	26-Sep-10	7	32.8
102/04-19-007-28W1/00	492.47	1070.50	2429.00	950.75	957.10	1749.75	953.93	-461.46	2785	2939	2844	8-Aug-10	17-Aug-10	9	32.8
103/04-19-007-28W1/00														0	
102/12-19-007-28W1/00														0	
103/16-19-007-28W1/00	506.91	1074.50	2503.00	964.15	959.51	1788.75	961.83	-454.92	2792	2948	2907	30-Aug-10	11-Sep-10	12	32.4
102/01-30-007-28W1/00														0	
102/04-30-007-28W1/00	496.60	1065.00	2365.00	945.59	950.04	1715.00	947.82	-451.22	3225	3301	3291	30-Sep-11	9-Oct-11	9	32.5
102/08-30-007-28W1/00														0	
102/09-30-007-28W1/00	499.98	1060.00	2479.00	948.85	951.09	1769.50	949.97	-449.99	3788	3940	3940	22-Aug-10	3-Sep-10	12	31.9
103/14-30-007-28W1/00	503.98	1087.00	2243.20	957.82	950.81	1665.10	954.32	-450.34	4978		4975	31-Oct-12	25-Jan-13	86	31.1
102/16-30-007-28W1/00	496.23	1064.50	2051.00	944.83	944.62	1557.75	944.73	-448.50	4833		4845	7-Oct-11	20-Oct-11	13	31.9
102/15-13-007-29W1/00														0	
102/12-24-007-29W1/00	507.02	1070.50	2341.00	967.24	974.99	1705.75	971.11	-464.09	7291	7441	7325	5-Sep-10	13-Sep-10	8	32.2
102/04-25-007-29W1/00	507.38	1099.50	2345.00	965.95	973.07	1722.25	969.51	-462.13	4151	4300	4200	30-Sep-10	22-Oct-10	22	31.9
104/08-25-007-29W1/00	511.04	1092.50	2356.00	973.28	967.55	1724.25	970.42	-459.38	3558	3710	3633	24-Sep-11	27-Sep-11	3	32.25
102/12-25-007-29W1/00	503.35	1078.00	2345.00	955.46	966.42	1711.50	960.94	-457.59	4940	5109	5046	12-Aug-10	18-Aug-10	6	32.7
103/12-25-007-29W1/00	500.13	1057.50	2328.00	950.28	959.10	1692.75	954.69	-454.56	3828	3977	3939	15-Aug-10	27-Aug-10	12	31.9
														0	

Cemented liner - no pressure available

P @ MPP- last stable

These are using the approximate average from the Unit 1 well testing results

AVERAGE **496.46** **1084.98** **2318.28** **959.77** **962.90** **1701.64** **961.34** **-464.87** **4020** **3971** **17.9** **32.6**

Appendix C

Sinclair Unit No. 2 Injection Pattern Summary as of December 2016

Pattern Name	Injector BH Location (007-28W1)	Injector Surface Location (007-28W1)	Status	Supported Wells (007-28W1)	No. of Supported Wells	Allocation Factor	Pattern Prod Start Month	Inj Start Month	Oil Rate (m³/d)	Water Rate (m³/d)	WOR (m³/m³)	Water Injection (m³/d)	Cum Oil (E³m³)	Cum Water (E³m³)	Cum Inj Water (E³m³)	Monthly VRR	Cum VRR
02/12-04-007-28W1 Injector	02/12-04	14-05	WTR Injection	12-04, 13-04, 09-05, 10-05, 15-05, 16-05	6	0.5	Jan 2007	Mar 2014	3.7	4.5	1.21	28.8	13.2	14.2	18.5	3.418	0.654
02/16-05-007-28W1 Injector	02/16-05	14-05	WTR Injection	14-05, 15-05, 16-05, 01-08, 02-08, 03-08	6	0.5	Sep 2007	Jan 2014	5.4	2.4	0.44	21.0	15.7	9.9	21.6	2.571	0.811
02/09-06-007-28W1 Injector	02/09-06	15-05	WTR Injection	11-05, 12-05, 13-05, 14-05, 09-06, 16-06	6	0.5	Sep 2006	Jan 2014	4.1	3.2	0.79	16.3	12.5	9.9	19.4	2.143	0.834
02/15-06-007-28W1 Injector	02/15-06	14-05	WTR Injection	13-05, 15-06, 16-06, 01-07, 02-07, 04-08	6	0.5	Sep 2006	Dec 2013	4.3	2.2	0.51	18.9	16.1	9.2	24.1	2.814	0.911
02/05-07-007-28W1 Injector	02/05-07	01-07	WTR Injection	01-07, 02-07, 03-07, 04-07, 05-07, 06-07, 07-07, 08-07	8	0.5	Jan 2007	Jan 2014	4.6	2.6	0.56	3.2	19.8	15.3	15.1	0.428	0.415
03/05-07-007-28W1 Injector	03/05-07	09-07	WTR Injection	05-07, 06-07, 07-07, 08-07, 09-07, 10-07, 11-07, 12-07	8	0.5	Jan 2007	Apr 2014	3.8	3.1	0.83	13.5	18.4	17.7	16.4	1.896	0.437
02/12-07-007-28W1 Injector	02/12-07	16-07	WTR Injection	09-07, 10-07, 11-07, 12-07, 13-07, 14-07, 15-07, 16-07	8	0.5	Dec 2007	Dec 2010	2.5	2.3	0.90	10.0	13.0	16.7	27.0	2.025	0.883
02/13-07-007-28W1 Injector	02/13-07	04-17	WTR Injection	13-07, 14-07, 15-07, 16-07, 01-18, 02-18, 03-18, 04-18	8	0.5	Oct 2006	Jun 2011	2.7	2.8	1.04	3.0	14.7	14.5	20.1	0.528	0.667
02/08-08-007-28W1 Injector	02/08-08	09-07	WTR Injection	05-08, 06-08, 07-08, 08-08, 02-09-08	9	0.5	Jan 2007	Apr 2014	7.4	5.4	0.73	20.8	30.5	18.5	20.7	1.559	0.406
				09-08, 10-08, 11-08, 12-08		1.0											
03/08-08-007-28W1 Injector	03/08-08	08-07	WTR Injection	01-08, 02-08, 03-08, 04-08, 05-08, 06-08, 07-08, 08-08	8	0.5	Sep 2007	Jan 2014	6.5	4.1	0.62	10.6	20.3	11.3	20.3	0.953	0.617
02/01-17-007-28W1 Injector	02/01-17	01-18	WTR Injection	01-17, 02-17, 03-17, 04-17, 02/08-17	9	0.5	Sep 2006	Dec 2010	7.0	8.0	1.15	22.1	38.4	20.7	47.7	1.429	0.771
				05-17, 06-17, 07-17, 08-17		1.0											
03/01-17-007-28W1 Injector	03/01-17	13-08	WTR Injection	13-08, 14-08, 15-08, 16-08	9	1.0	Sep 2006	Dec 2010	8.3	6.1	0.74	24.5	40.1	19.7	45.9	1.630	0.734
				01-17, 02-17, 03-17, 04-17, 02/09-08		0.5											
02/09-17-007-28W1 Injector	02/09-17	13-17	WTR Injection	02/08-17, 02/04-20	10	0.5	Sep 2006	Dec 2010	16.0	10.3	0.64	29.5	64.4	22.7	46.9	1.073	0.512
				09-17, 10-17, 11-17, 12-17, 13-17, 14-17, 15-17, 16-17		1.0											
02/05-18-007-28W1 Injector	02/05-18	08-18	WTR Injection	01-18, 02-18, 03-18, 04-18, 03/05-18/2	9	0.5	Oct 2006	Dec 2010	6.5	5.3	0.82	11.2	30.9	16.1	29.6	0.920	0.603
				05-18, 06-18, 07-18, 08-18		1.0											
02/12-18-007-28W1 Injector	02/12-18	13-17	WTR Injection	09-18, 10-18, 11-18, 12-18,	9	1.0	Dec 2004	Dec 2010	9.4	4.5	0.48	14.9	43.2	15.4	35.0	1.020	0.568
				13-18, 14-18, 15-18, 16-18, 03/05-18/2		0.5											
02/04-19-007-28W1 Injector	02/04-19	16-18	WTR Injection	13-18, 14-18, 15-18, 16-18, 03/04-19	9	0.5	Dec 2004	Dec 2010	8.5	3.7	0.43	21.6	48.7	14.8	42.1	1.698	0.630
				01-19, 02-19, 03-19, 04-19		1.0											
02/12-19-007-28W1 Injector	02/12-19	09-19	WTR Injection	05-19, 06-19, 07-19, 08-19	9	1.0	Mar 2006	Mar 2011	7.1	2.6	0.37	13.1	46.0	13.0	41.2	1.288	0.663
				09-19, 10-19, 11-19, 12-19, 03/04-19		0.5											
03/16-19-007-28W1 Injector	03/16-19	16-24 (007-29W1)	WTR Injection	09-19, 10-19, 11-19, 12-19, 13-19, 14-19, 15-19, 16-19	8	0.5	Nov 2006	Nov 2010	4.7	2.0	0.42	24.0	30.7	7.7	54.5	3.447	1.347
02/01-30-007-28W1 Injector	02/01-30	01-25 (007-29W1)	WTR Injection	13-19, 14-19, 15-19, 16-19, 02/04-30	9	0.5	Mar 2006	Nov 2014	5.3	2.4	0.45	9.7	41.9	14.4	11.6	1.205	0.196
				01-30, 02-30, 03-30, 04-30		1.0											
02/08-30-007-28W1 Injector	02/08-30	08-25 (007-29W1)	WTR Injection	09-30, 10-30, 11-30, 12-30, 02/04-30	9	0.5	Mar 2006	Jun 2011	5.5	2.5	0.44	12.2	33.5	11.4	32.3	1.467	0.683
				05-30, 06-30, 07-30, 08-30		1.0											

Appendix C

Sinclair Unit No. 2 Injection Pattern Summary as of December 2016

Pattern Name	Injector BH Location (007-29W1)	Injector Surface Location (007-29W1)	Status	Supported Wells (007-29W1)	No. of Supported Wells	Allocation Factor	Pattern Prod Start Month	Inj Start Month	Oil Rate (m³/d)	Water Rate (m³/d)	WOR (m³/m³)	Water Injection (m³/d)	Cum Oil (E³m³)	Cum Water (E³m³)	Cum Inj Water (E³m³)	Monthly VRR	Cum VRR
02/09-30-007-28W1 Injector	02/09-30	09-25 (007-29W1)	WTR Injection	09-30, 10-30, 11-30, 12-30, 13-30, 14-30, 15-30, 16-30	8	0.5	Oct 2006	Nov 2010	2.9	15.0	5.25	19.5	23.3	22.5	46.2	1.082	0.974
02/16-30-007-28W1 Injector	02/16-30	13-30	WTR Injection	14-30, 15-30, 16-30	6	0.5	Oct 2006	Nov 2014	2.7	2.6	0.97	12.0	23.8	11.3	11.9	2.184	0.324
				01-31, 02-31, 03-31		1.0											
02/16-13-007-29W1 Injector	02/16-13	10-24 (007-29W1)	Capable of OIL Prod	9-13, 15-13, 16-13, 01-24, 02-24, 07-24, 08-24, 09-24, 10-24	9	0.5	Mar 2006	-	7.4	1.5	0.21	-	26.3	8.7	0.0	0.000	0.000
02/12-24-007-29W1 Injector	02/12-24	16-24 (007-29W1)	WTR Injection	09-24, 10-24, 11-24, 12-24, 13-24, 14-24, 15-24, 16-24	8	0.5	Feb 2006	Nov 2010	1.9	2.0	1.10	2.0	12.9	8.5	25.1	0.491	1.124
02/04-25-007-29W1 Injector	02/04-25	01-25 (007-29W1)	WTR Injection	13-24, 14-24, 15-24, 16-24, 04/08-25	9	0.5	Oct 2006	Nov 2010	5.7	5.8	1.01	6.1	35.7	16.2	40.3	0.510	0.741
				01-25, 02-25, 03-25, 04-25		1.0											
02/12-25-007-29W1 Injector	02/12-25	09-25 (007-29W1)	WTR Injection	05-25, 06-25, 07-25, 08-25	9	1.0	Aug 2004	Nov 2010	4.5	1.8	0.39	9.6	32.6	25.3	51.1	1.466	0.849
				09-25, 10-25, 11-25, 12-25, 04/08-25		0.5											
03/12-25-007-29W1 Injector	03/12-25	16-25 (007-29W1)	WTR Injection	09-25, 10-25, 11-25, 12-25, 03/14-30	9	0.5	Mar 2006	Nov 2010	4.0	2.4	0.59	8.9	31.1	11.8	30.8	1.329	0.686
				13-25, 14-25, 15-25, 16-25		1.0											

Appendix D

Rates and VRR Plots

Pattern: 02/12-04-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 2.14 m3/m3

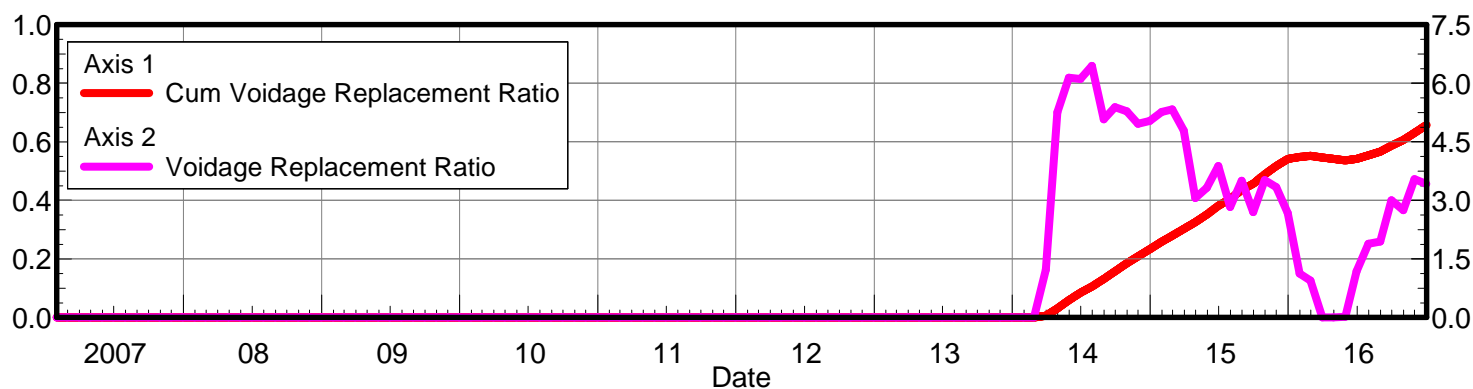
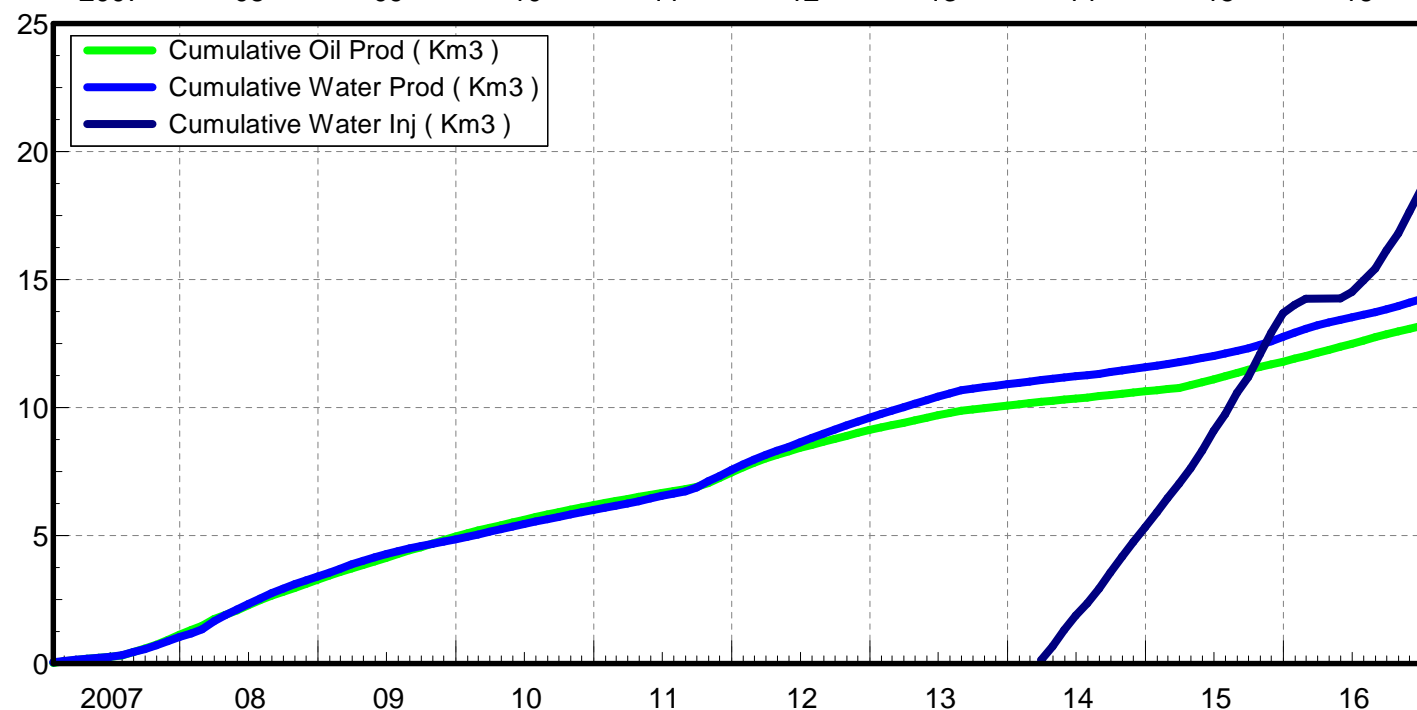
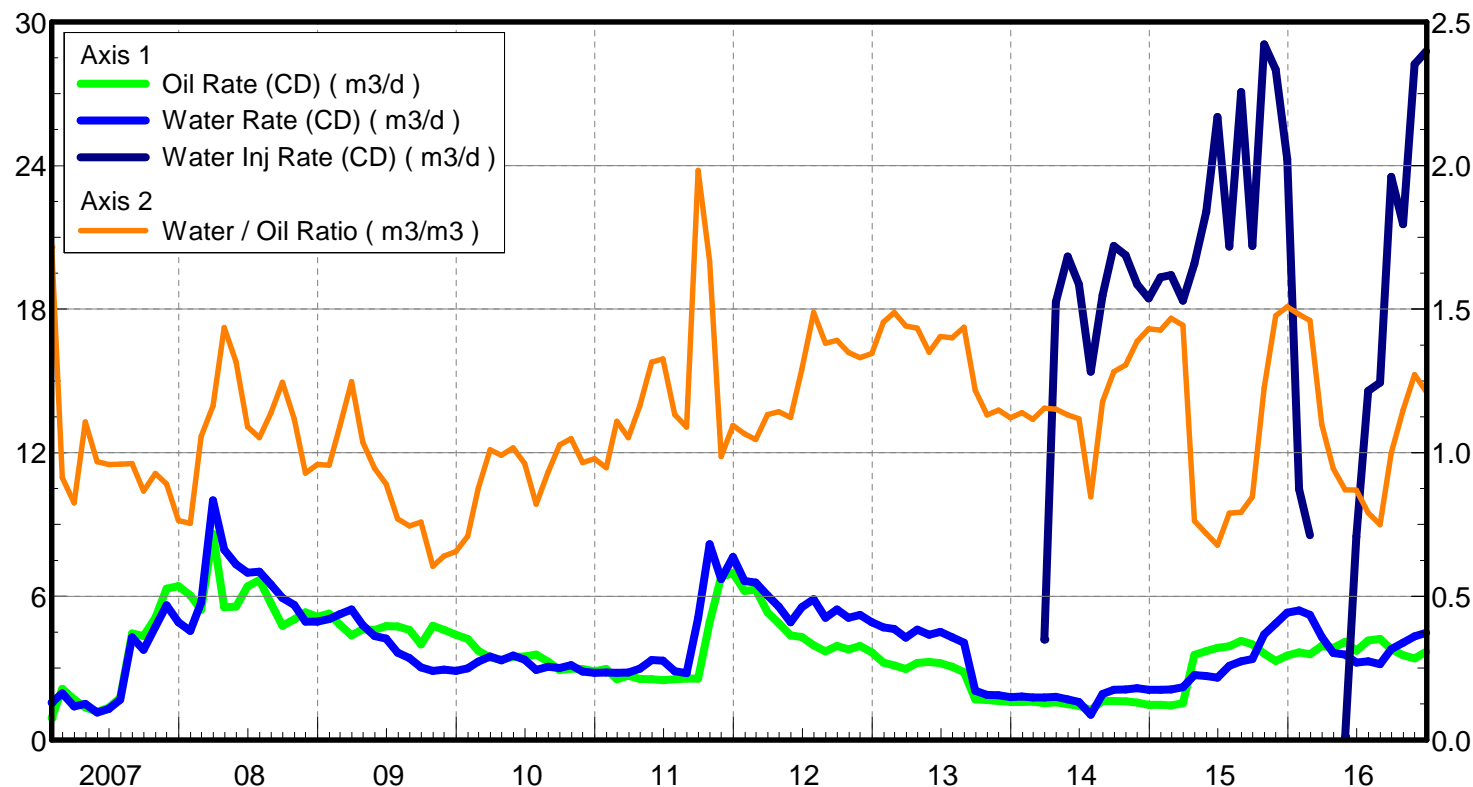
July 27, 2017

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 2.94 m3/d

Water Rate (CD) : 3.63 m3/d

Water Inj Rate (CD) : 29.30 m3/d



Pattern: 02/16-05-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.49 m3/m3

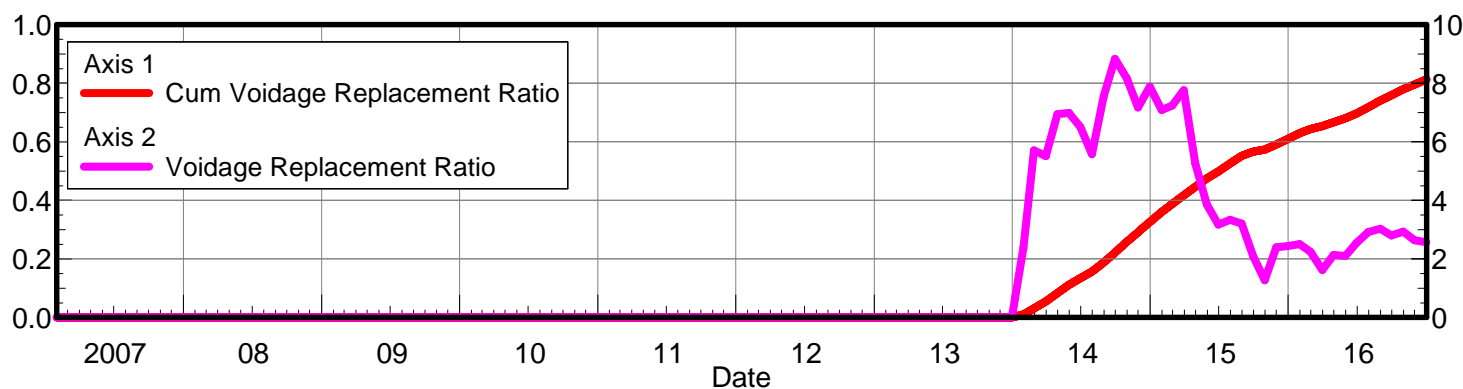
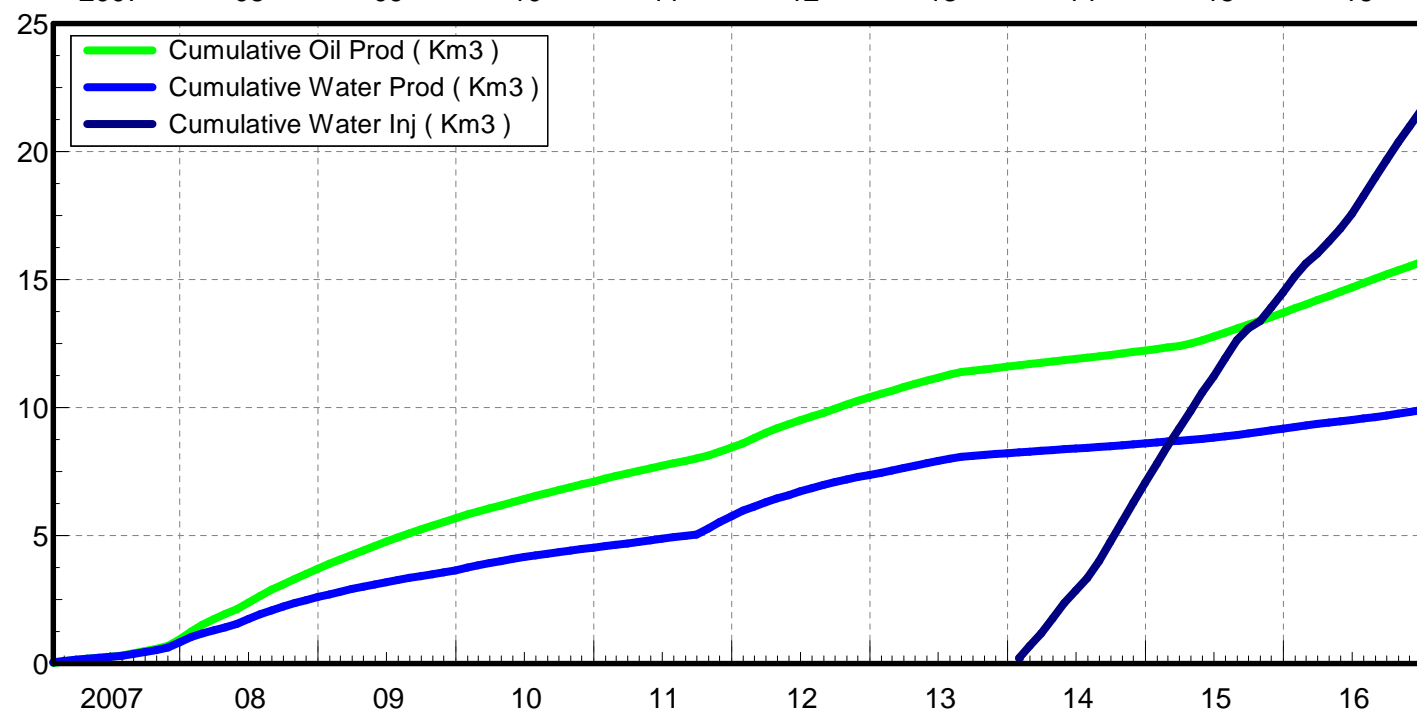
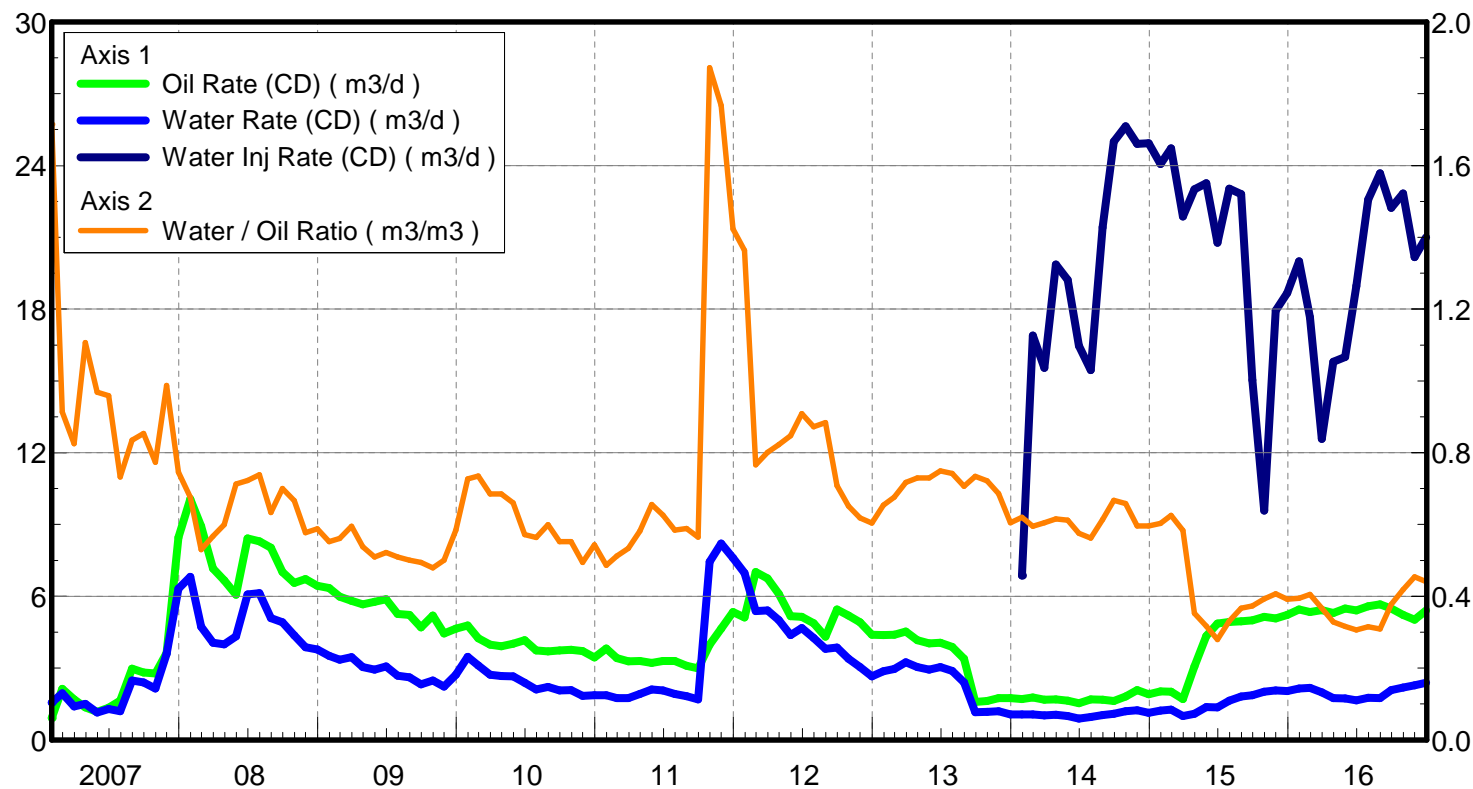
July 27, 2017

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 5.18 m3/d

Water Rate (CD) : 2.25 m3/d

Water Inj Rate (CD) : 18.17 m3/d



Pattern: 02/09-06-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.74 m3/m3

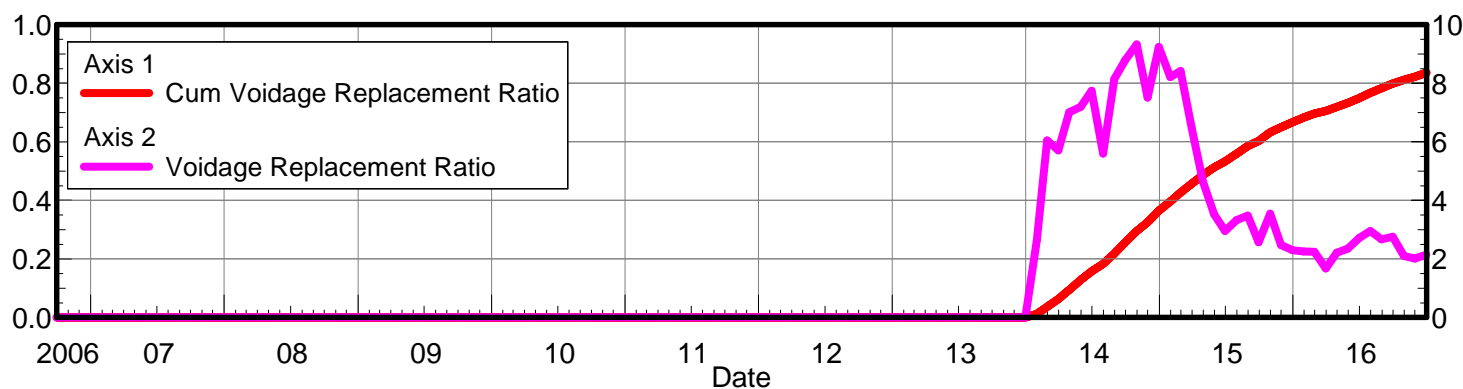
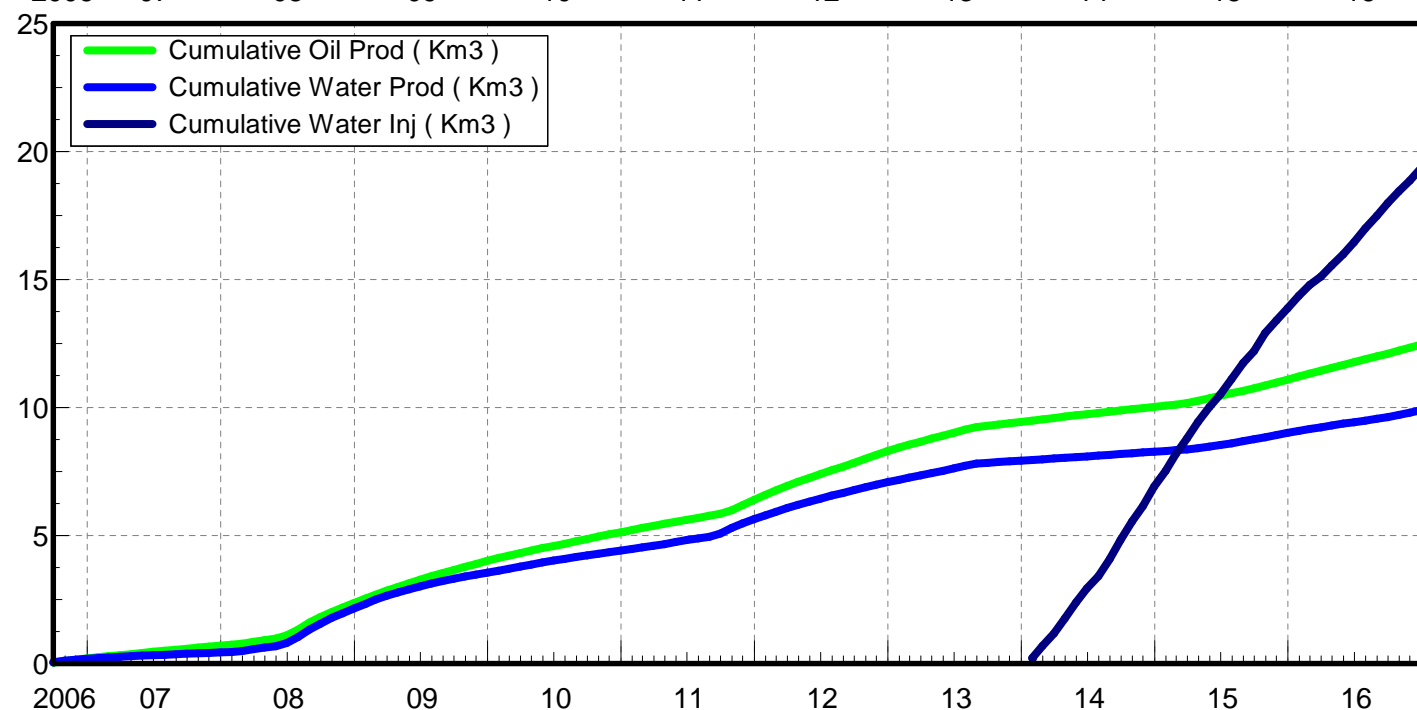
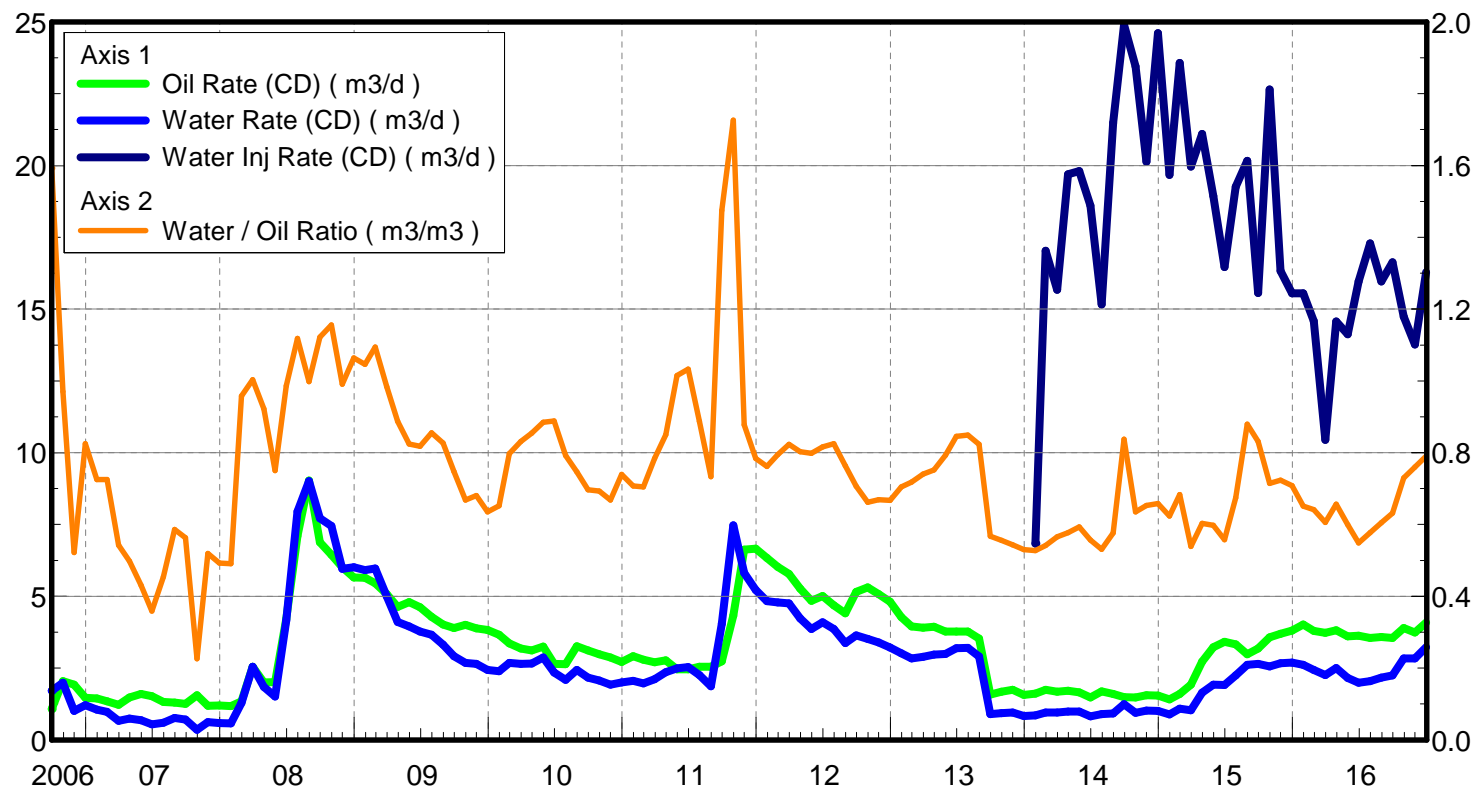
Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 3.72 m3/d

Water Rate (CD) : 2.56 m3/d

Water Inj Rate (CD) : 14.73 m3/d

July 27, 2017



Pattern: 02/15-06-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.52 m3/m3

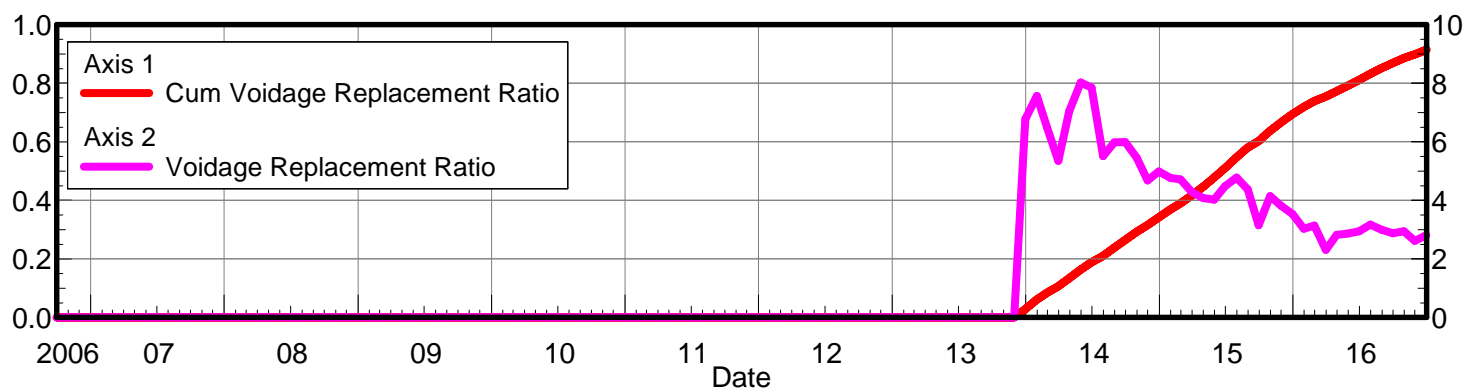
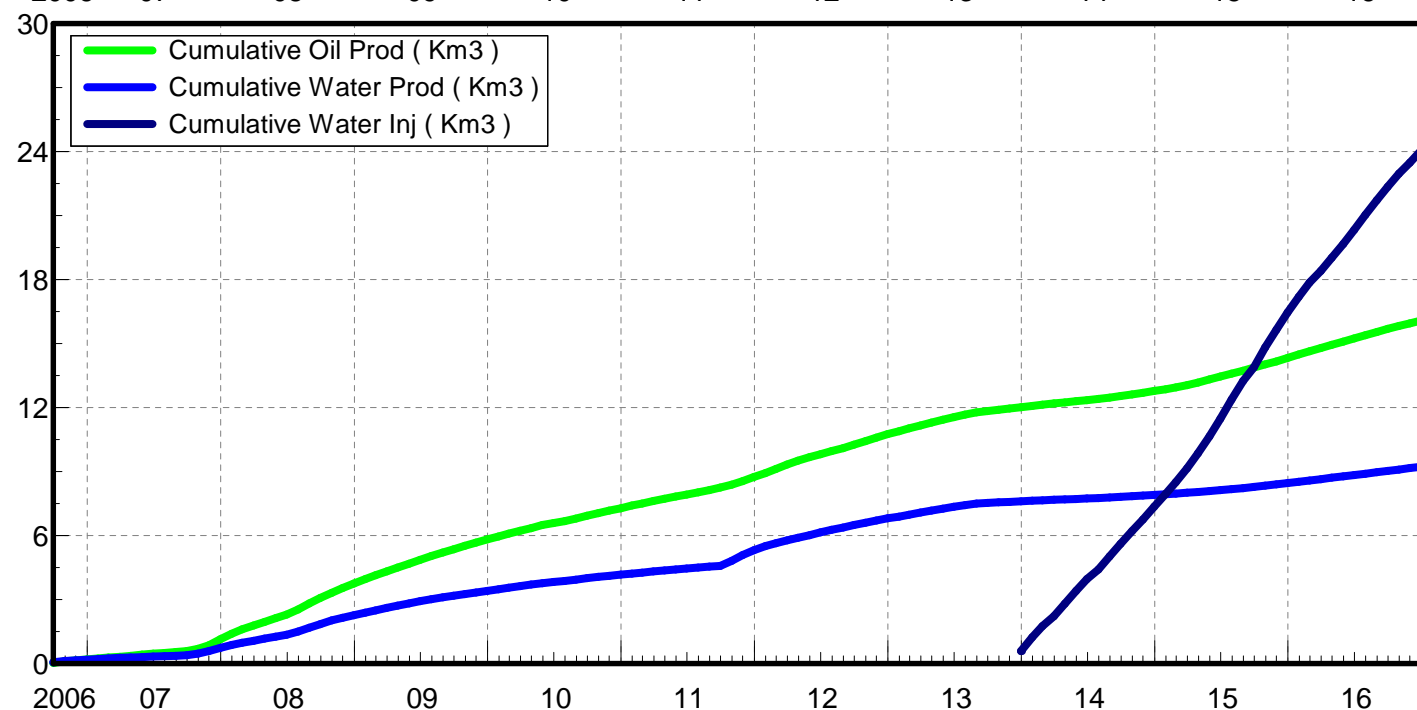
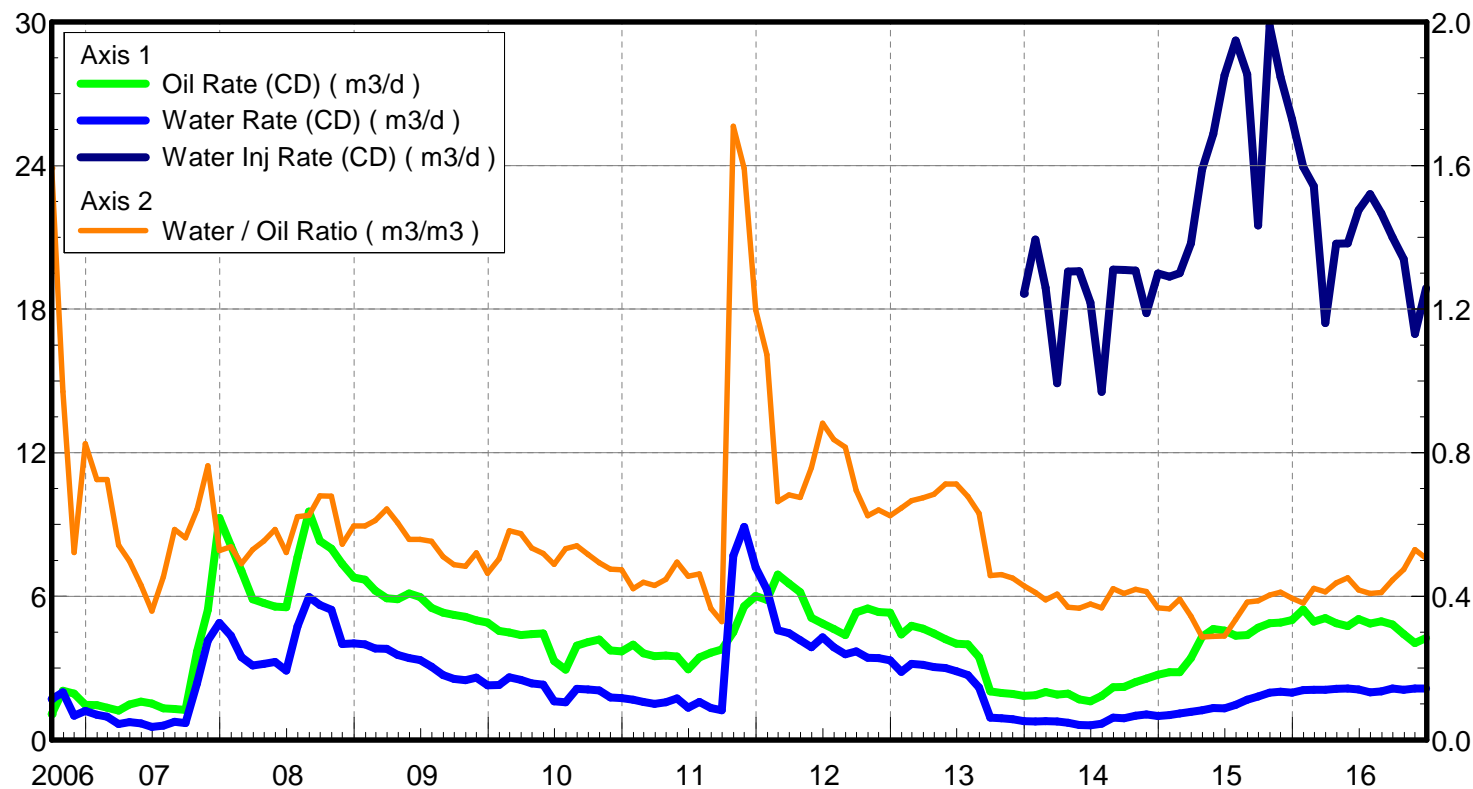
Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 4.72 m3/d

Water Rate (CD) : 2.69 m3/d

Water Inj Rate (CD) : 16.93 m3/d

July 27, 2017



Pattern: 02/05-07-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.54 m3/m3

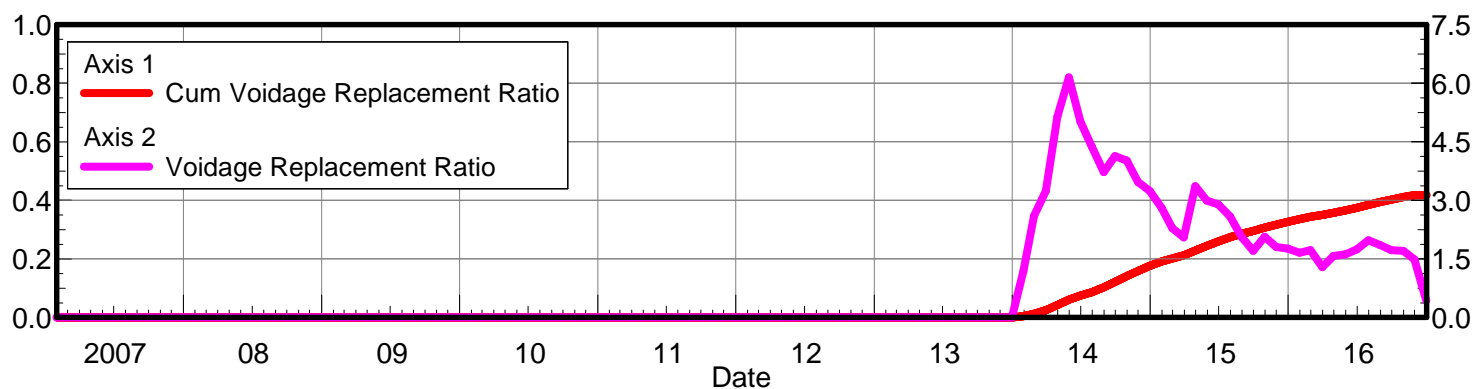
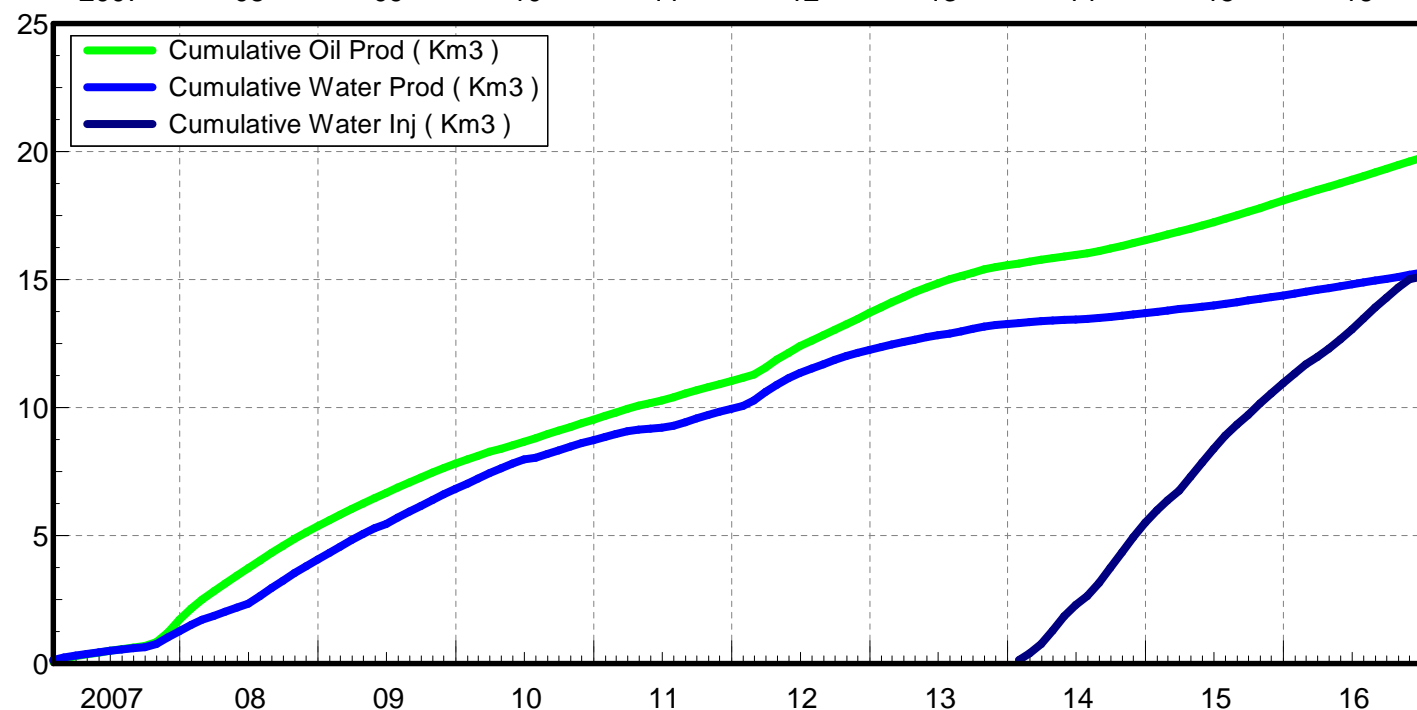
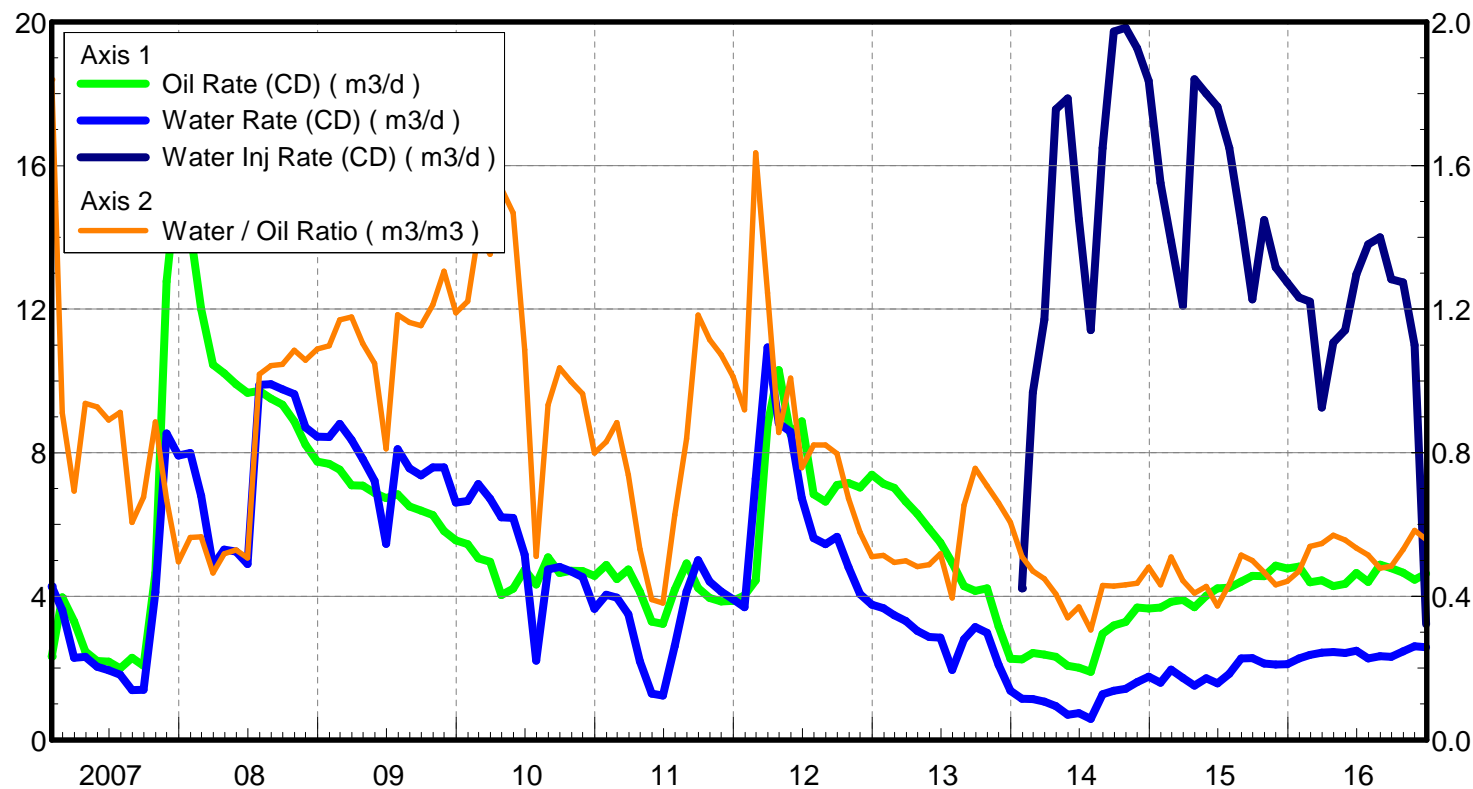
July 27, 2017

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 4.27 m3/d

Water Rate (CD) : 2.37 m3/d

Water Inj Rate (CD) : 13.80 m3/d



Pattern: 03/05-07-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.72 m3/m3

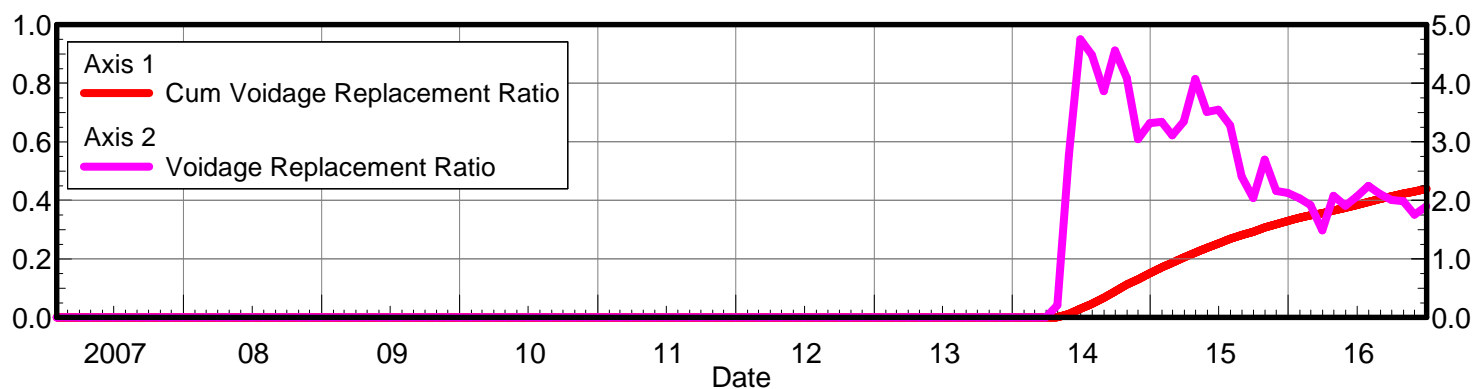
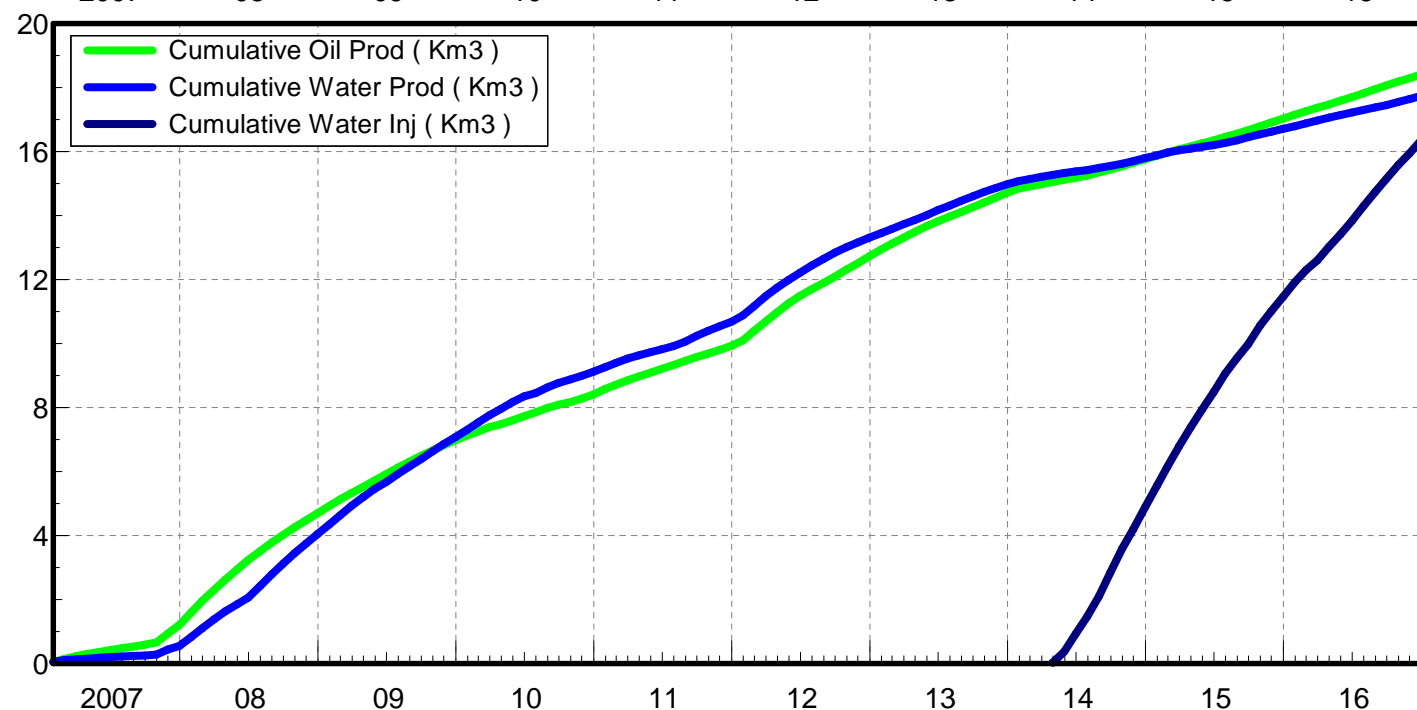
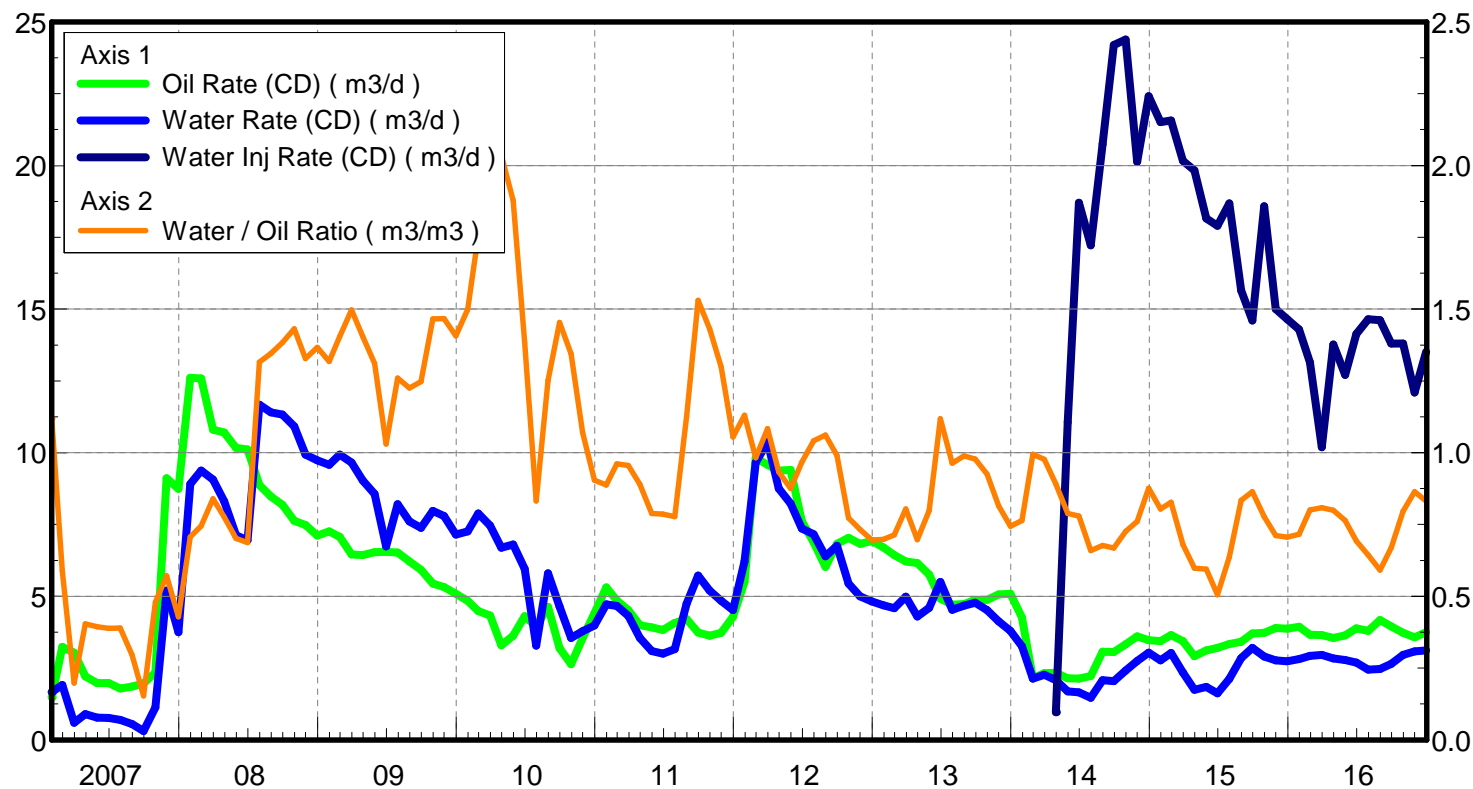
Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 3.53 m3/d

Water Rate (CD) : 2.86 m3/d

Water Inj Rate (CD) : 12.03 m3/d

July 27, 2017



Pattern: 02/12-07-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.93 m3/m3

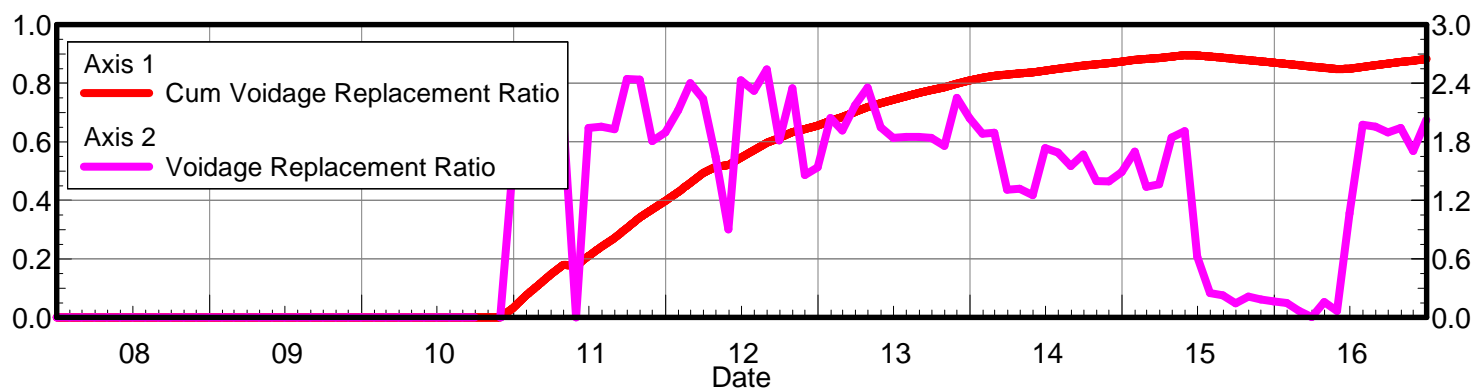
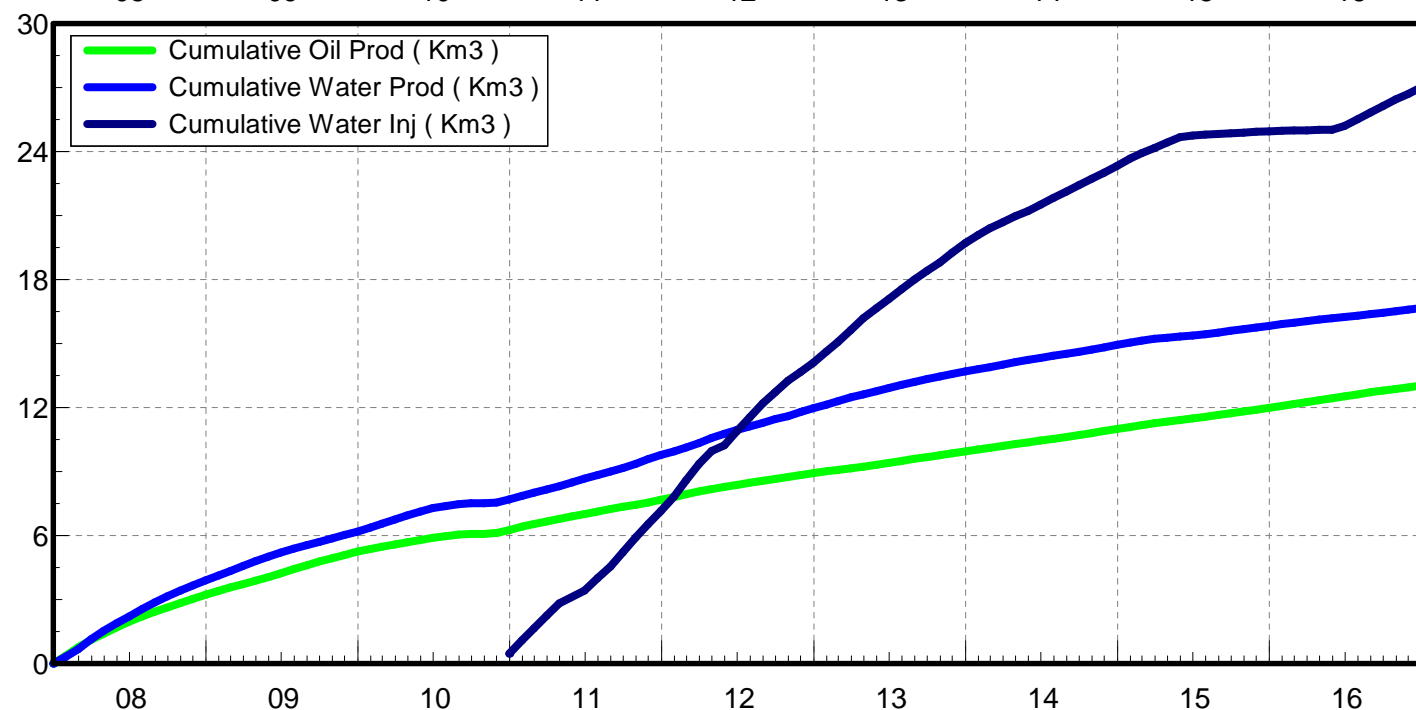
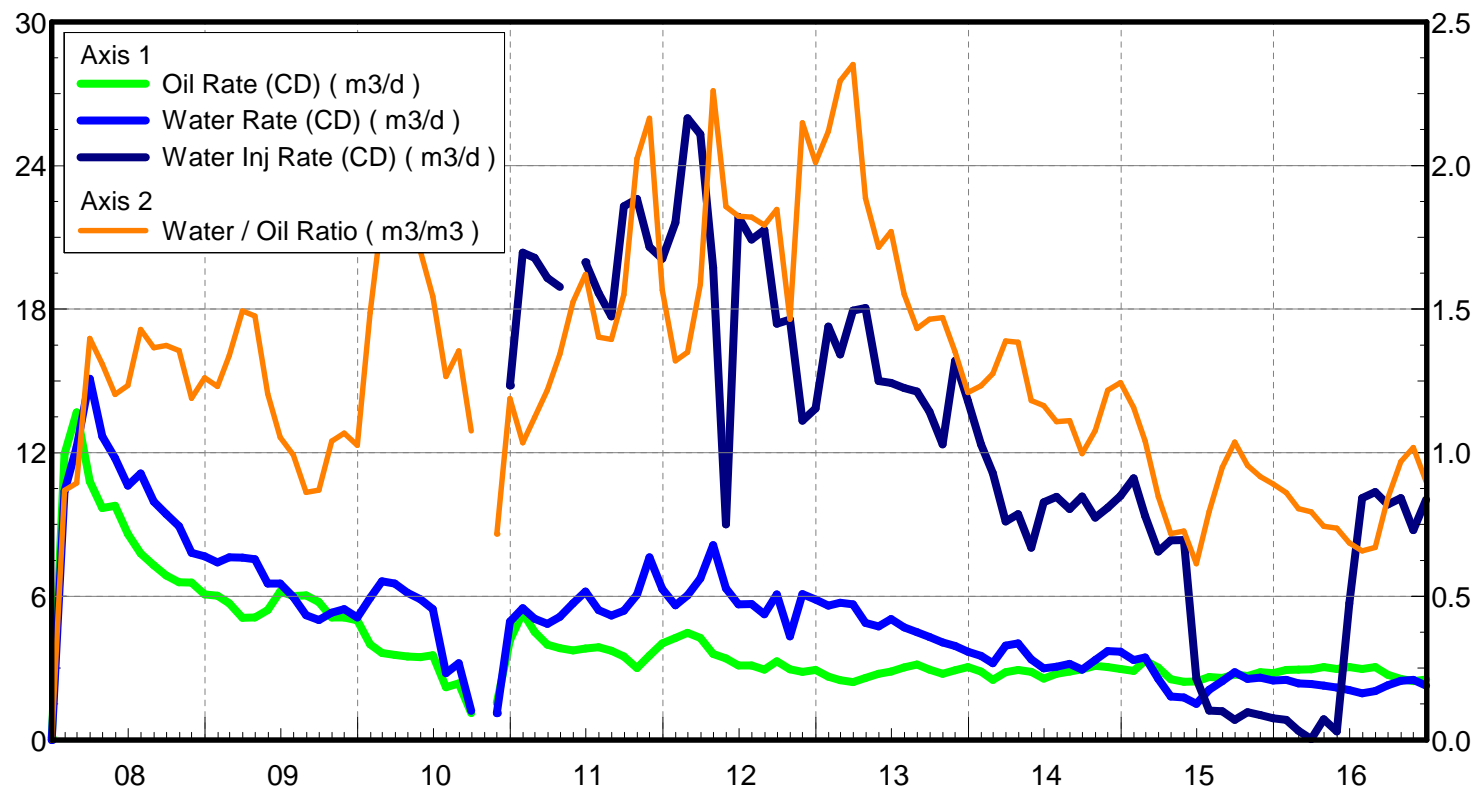
July 27, 2017

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 2.44 m3/d

Water Rate (CD) : 2.33 m3/d

Water Inj Rate (CD) : 9.07 m3/d



Pattern: 02/13-07-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.94 m3/m3

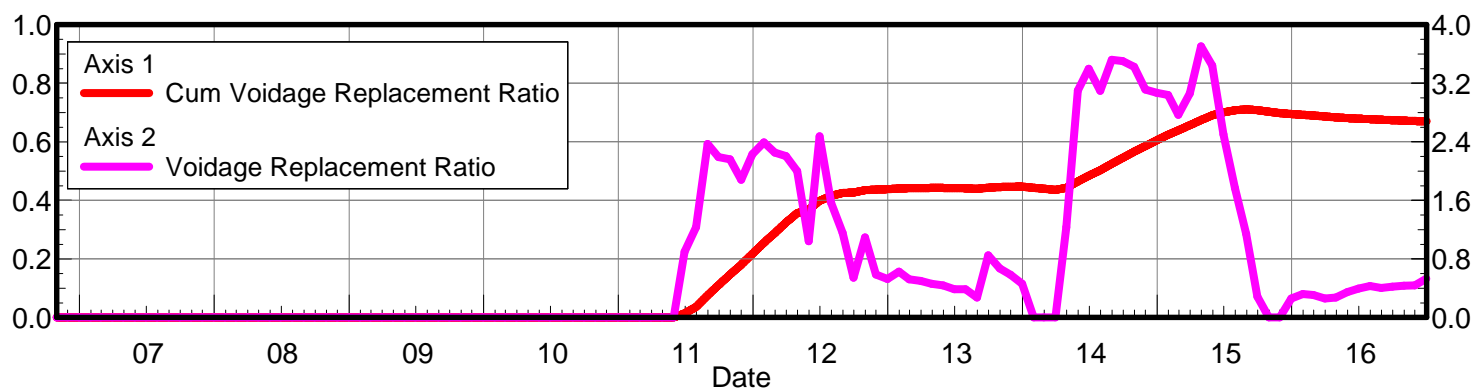
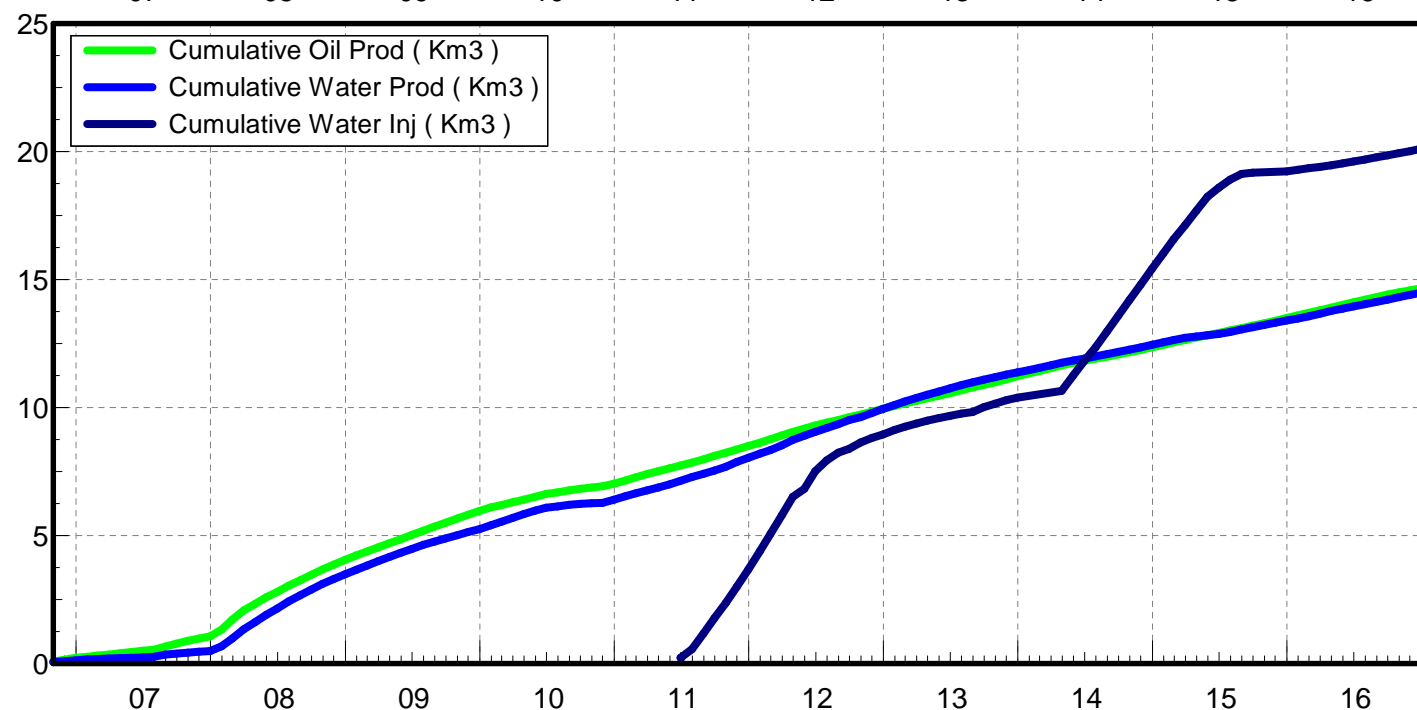
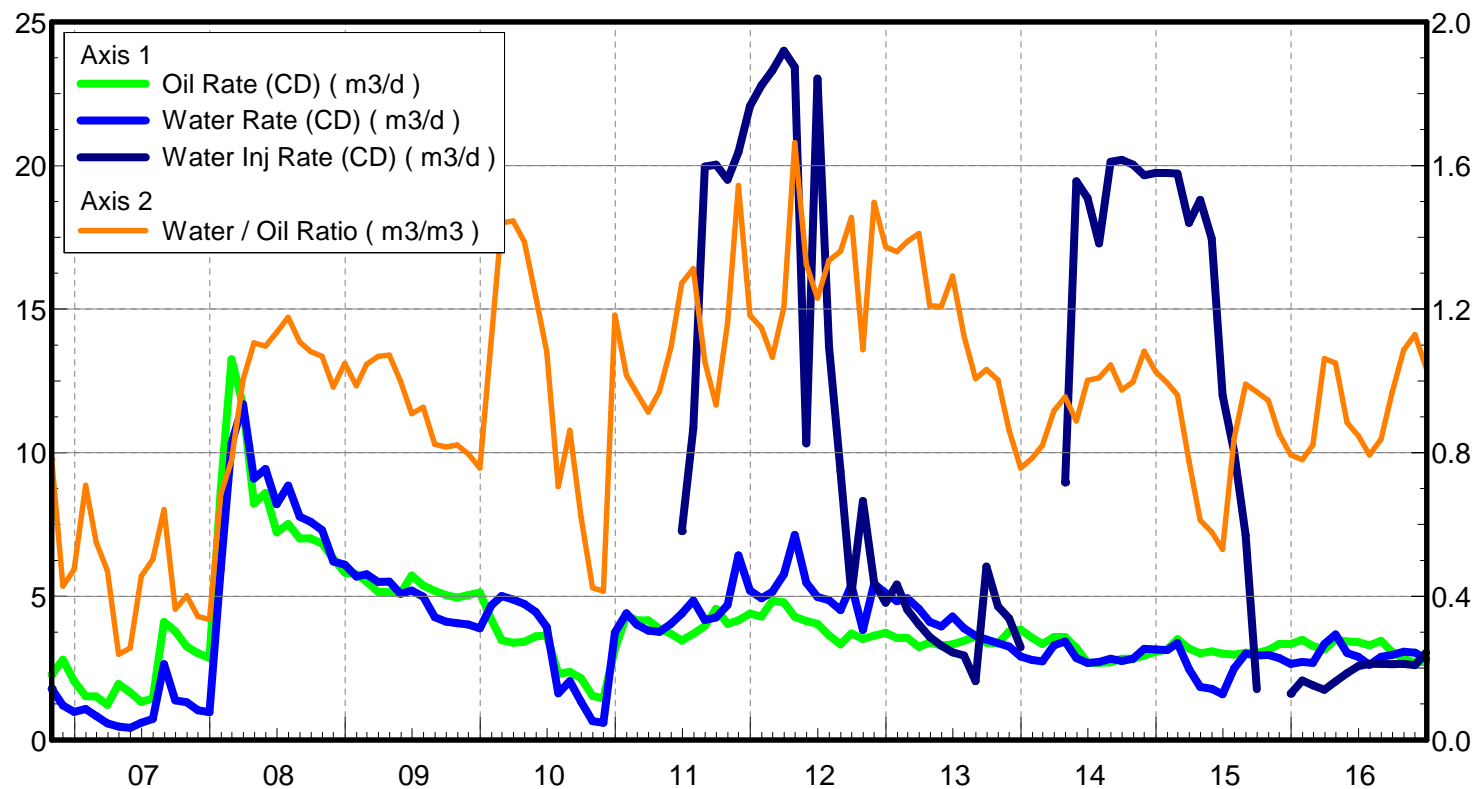
Operator: TUNDRA_OIL_&_GAS_LIMITED

July 27, 2017

Oil Rate (CD) : 2.45 m3/d

Water Rate (CD) : 2.52 m3/d

Water Inj Rate (CD) : 3.30 m3/d



Pattern: 02/08-08-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.82 m3/m3

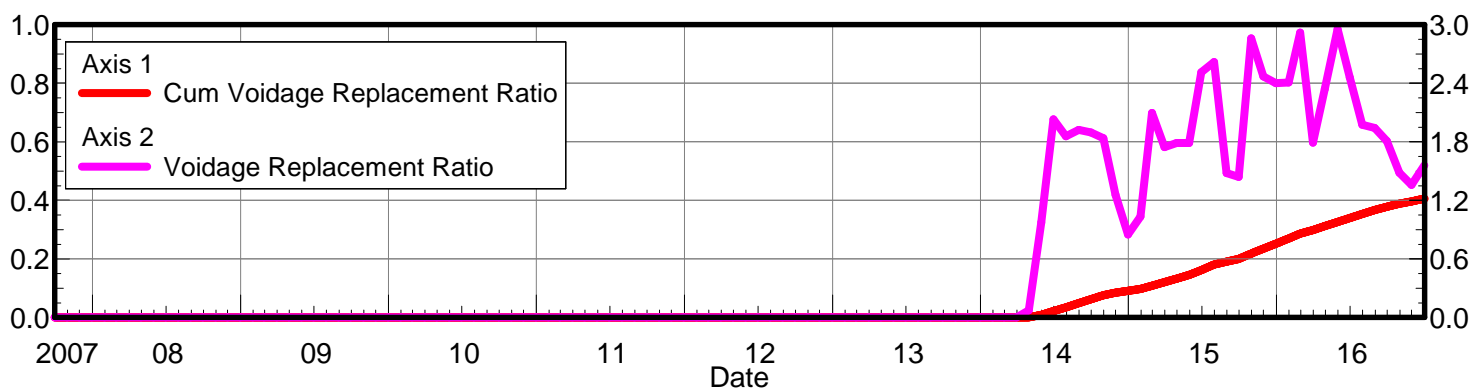
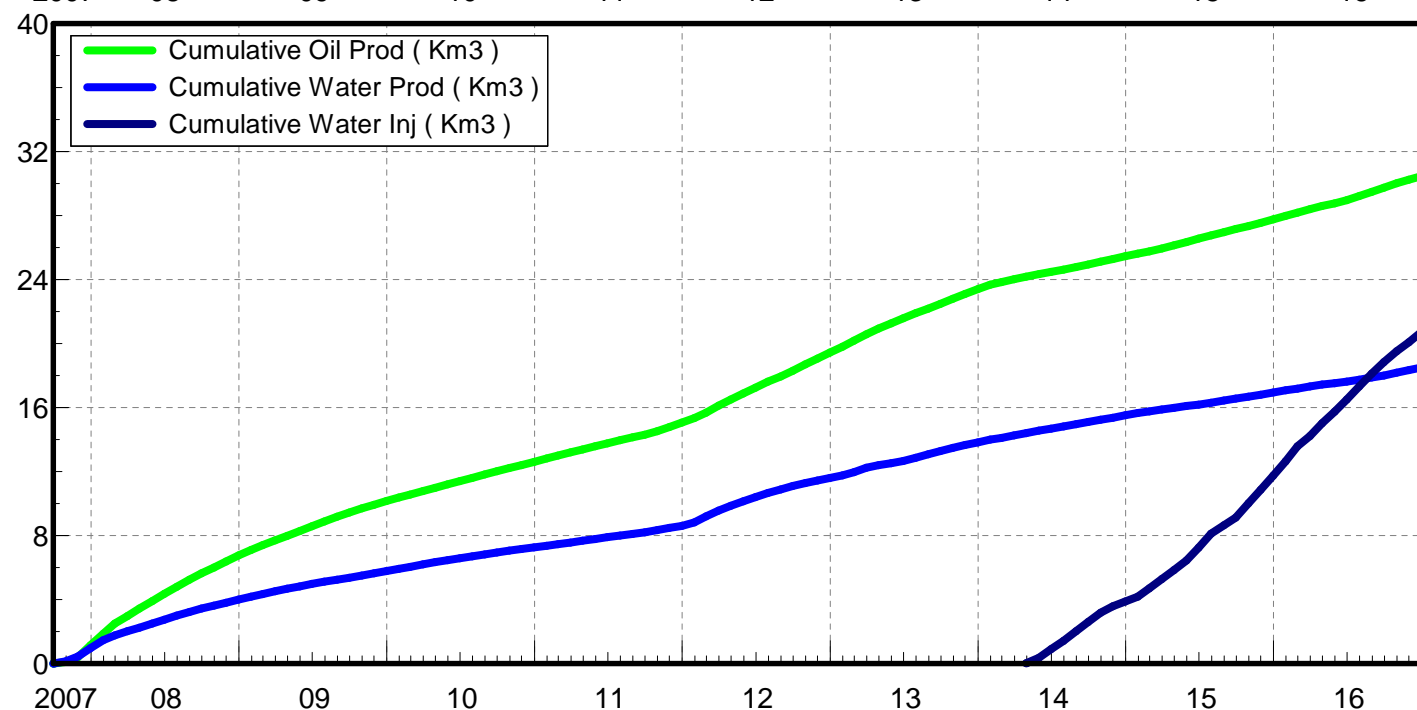
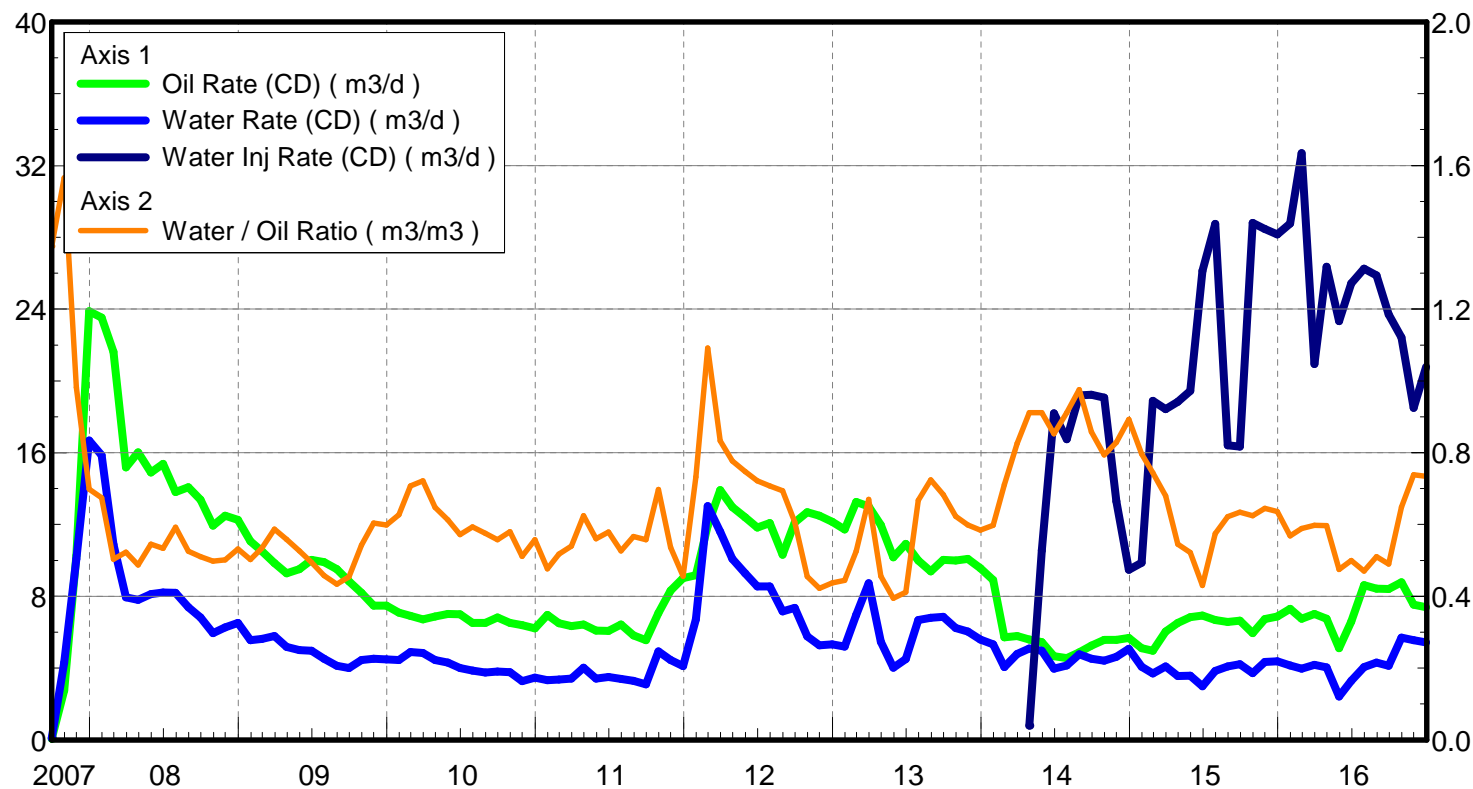
Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 7.27 m3/d

Water Rate (CD) : 3.98 m3/d

Water Inj Rate (CD) : 17.27 m3/d

July 27, 2017



Pattern: 03/08-08-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.55 m3/m3

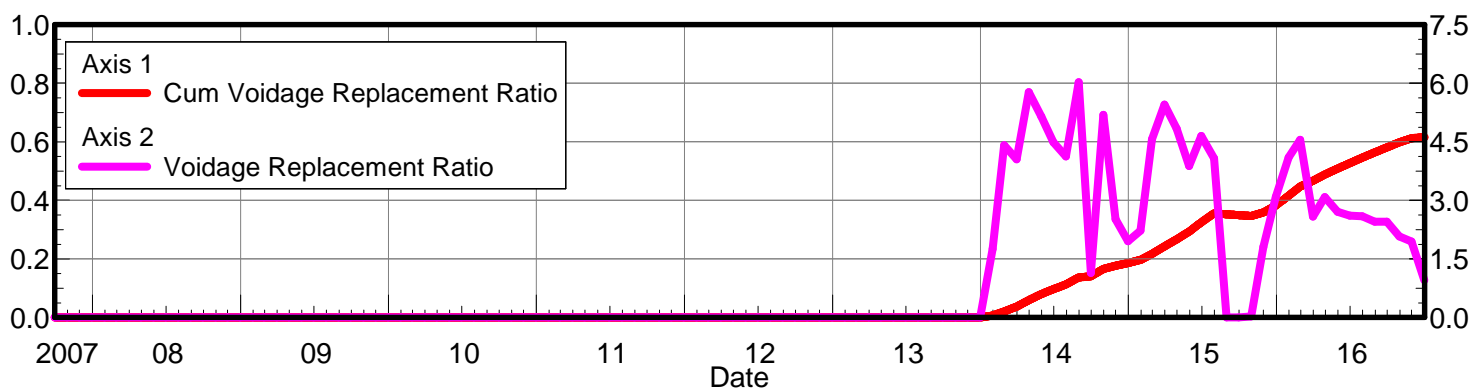
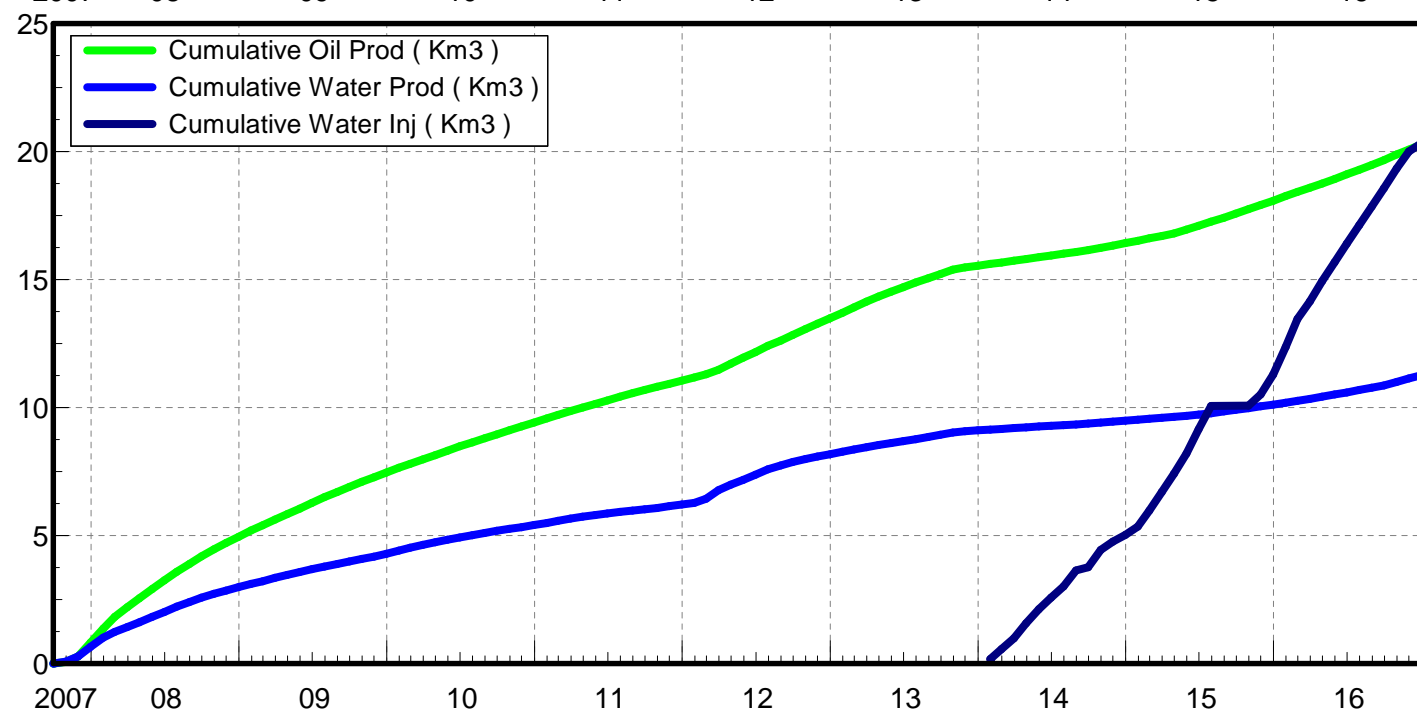
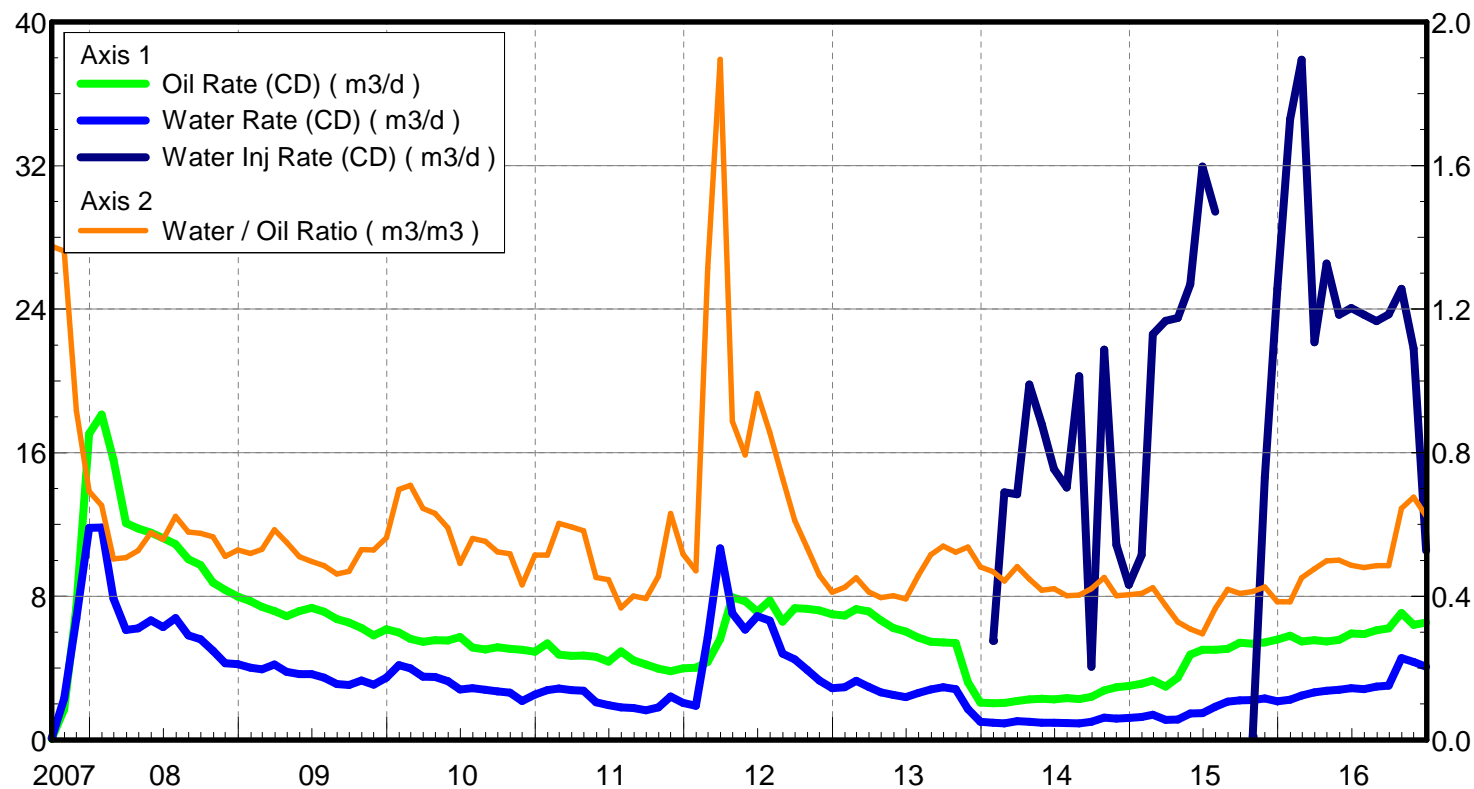
Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 6.10 m3/d

Water Rate (CD) : 3.81 m3/d

Water Inj Rate (CD) : 19.00 m3/d

July 27, 2017



Pattern: 02/01-17-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.88 m3/m3

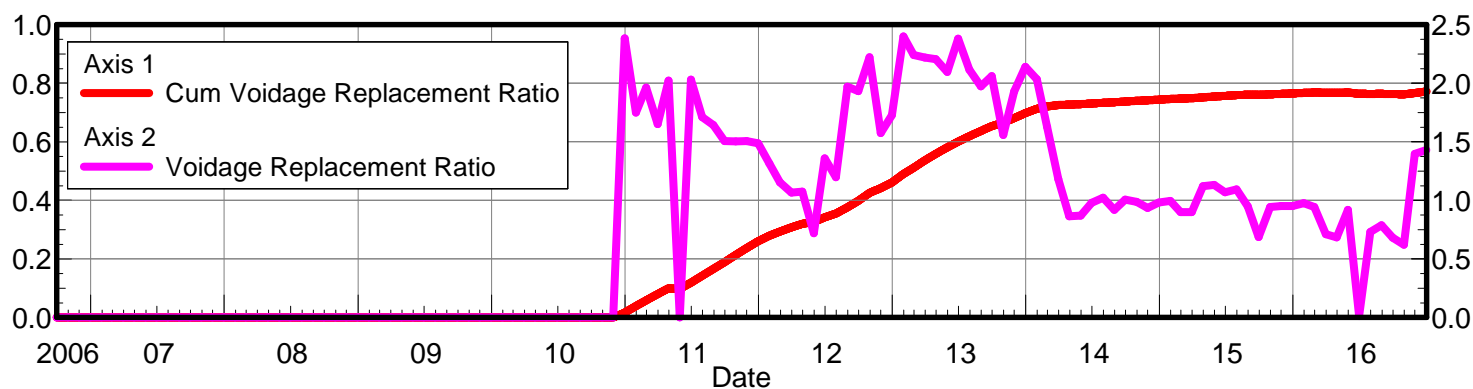
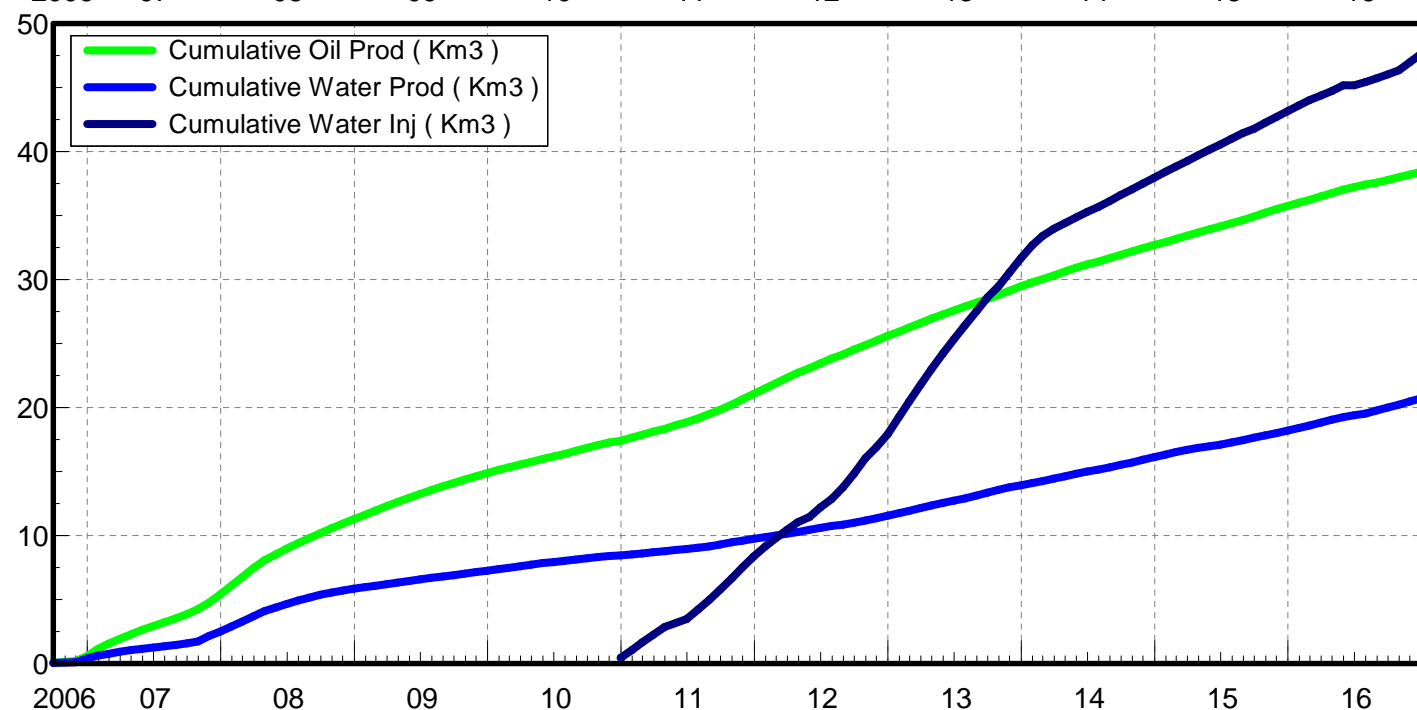
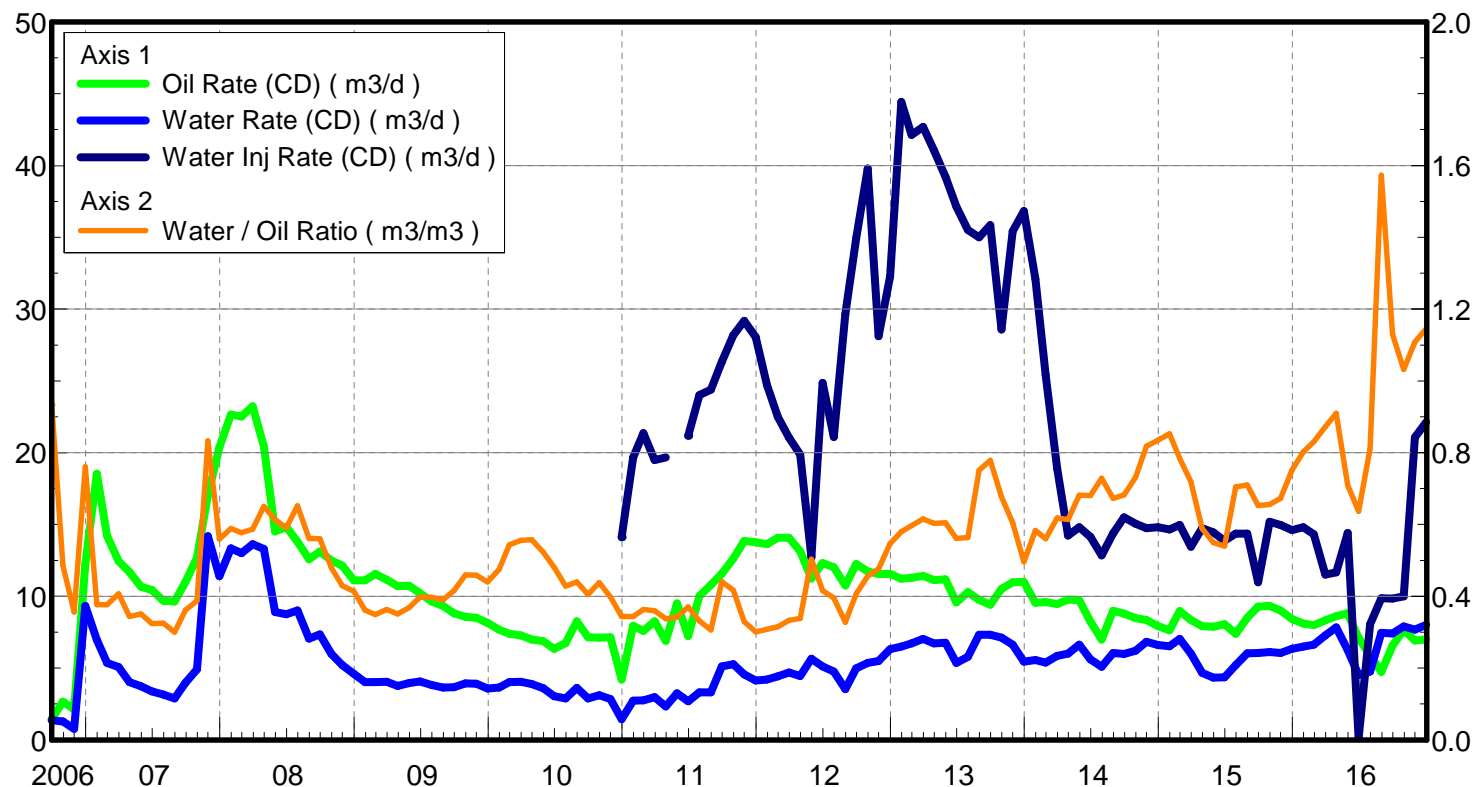
Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 6.08 m3/d

Water Rate (CD) : 6.86 m3/d

Water Inj Rate (CD) : 18.60 m3/d

July 27, 2017



Pattern: 03/01-17-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.88 m3/m3

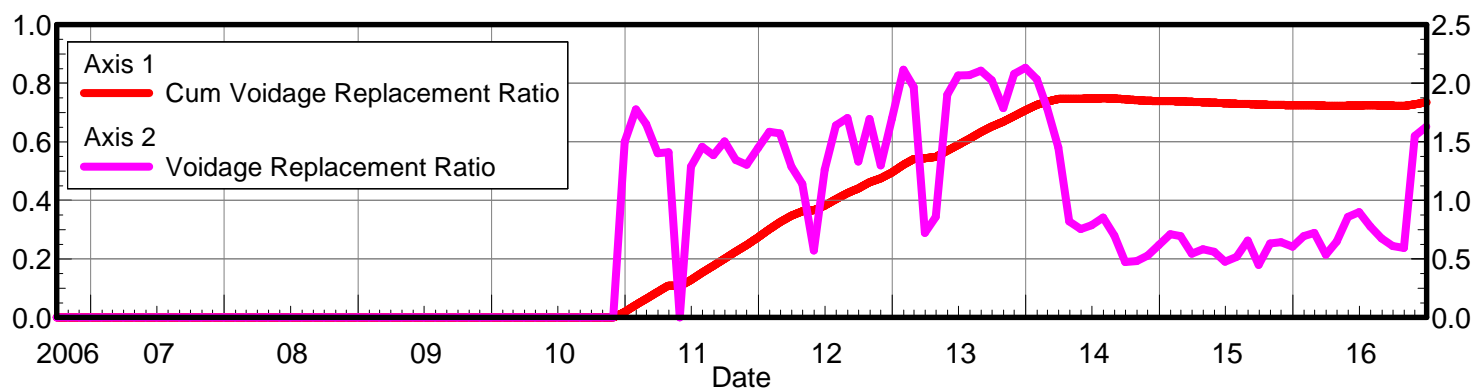
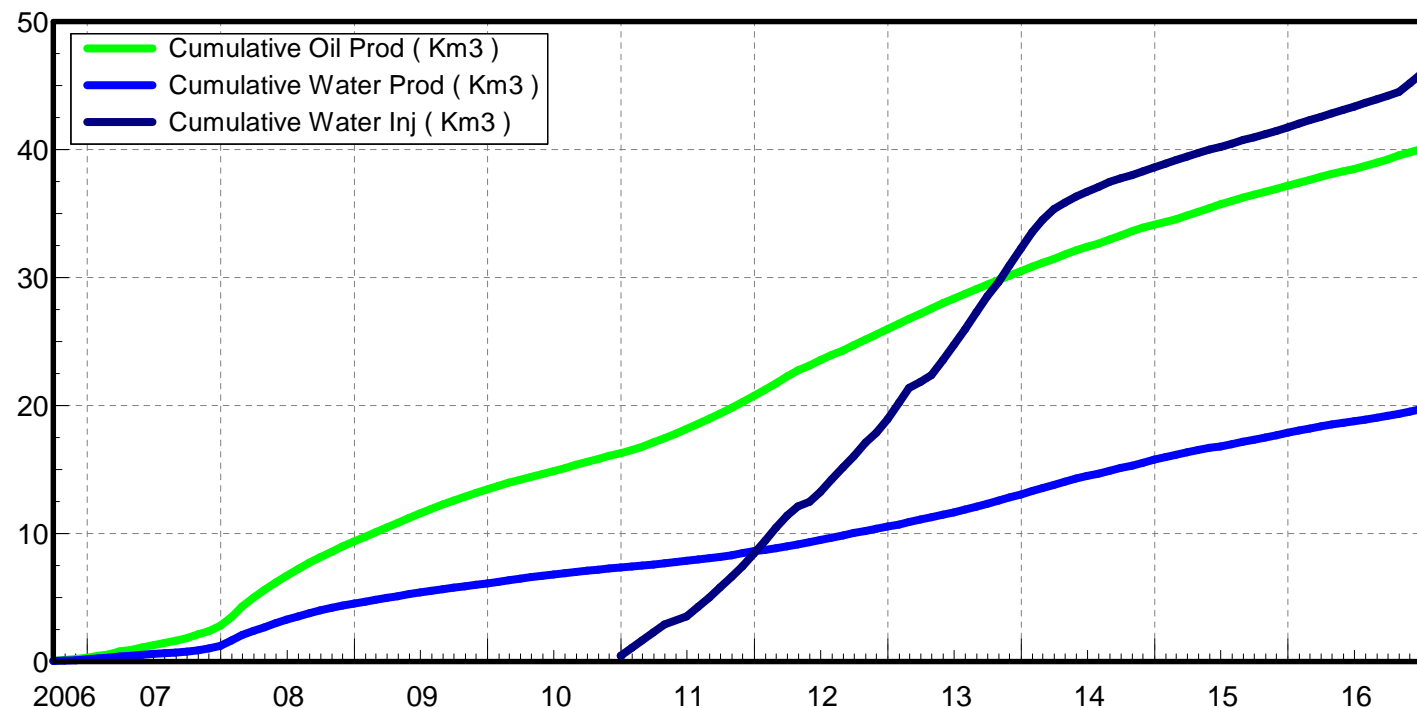
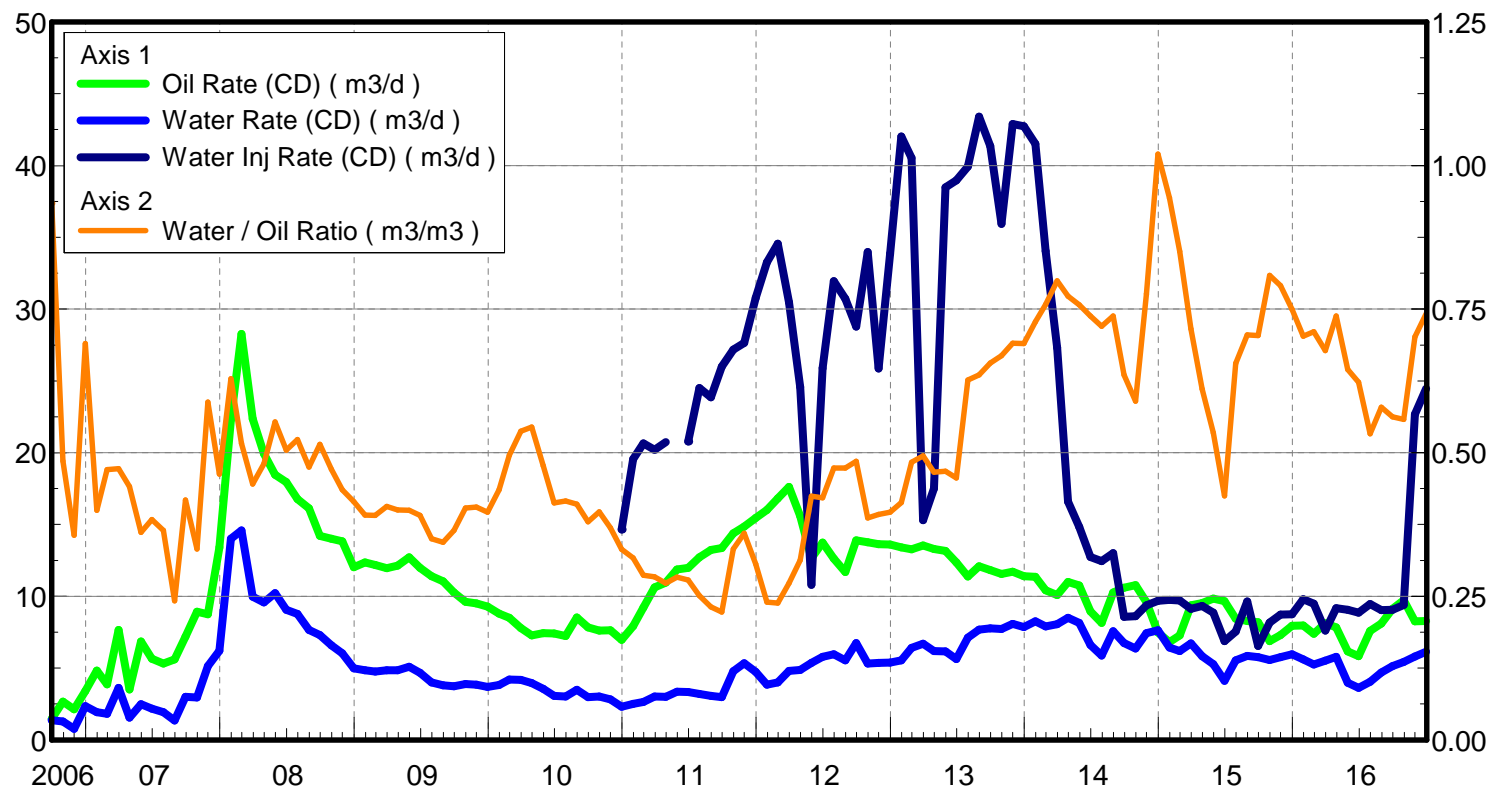
July 27, 2017

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 6.05 m3/d

Water Rate (CD) : 4.25 m3/d

Water Inj Rate (CD) : 24.13 m3/d



Pattern: 02/09-17-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.61 m3/m3

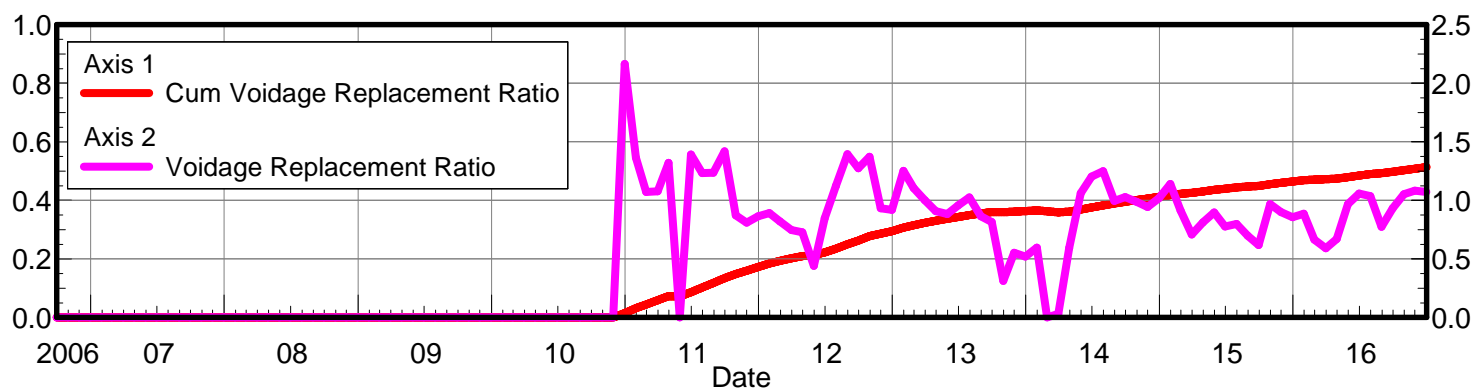
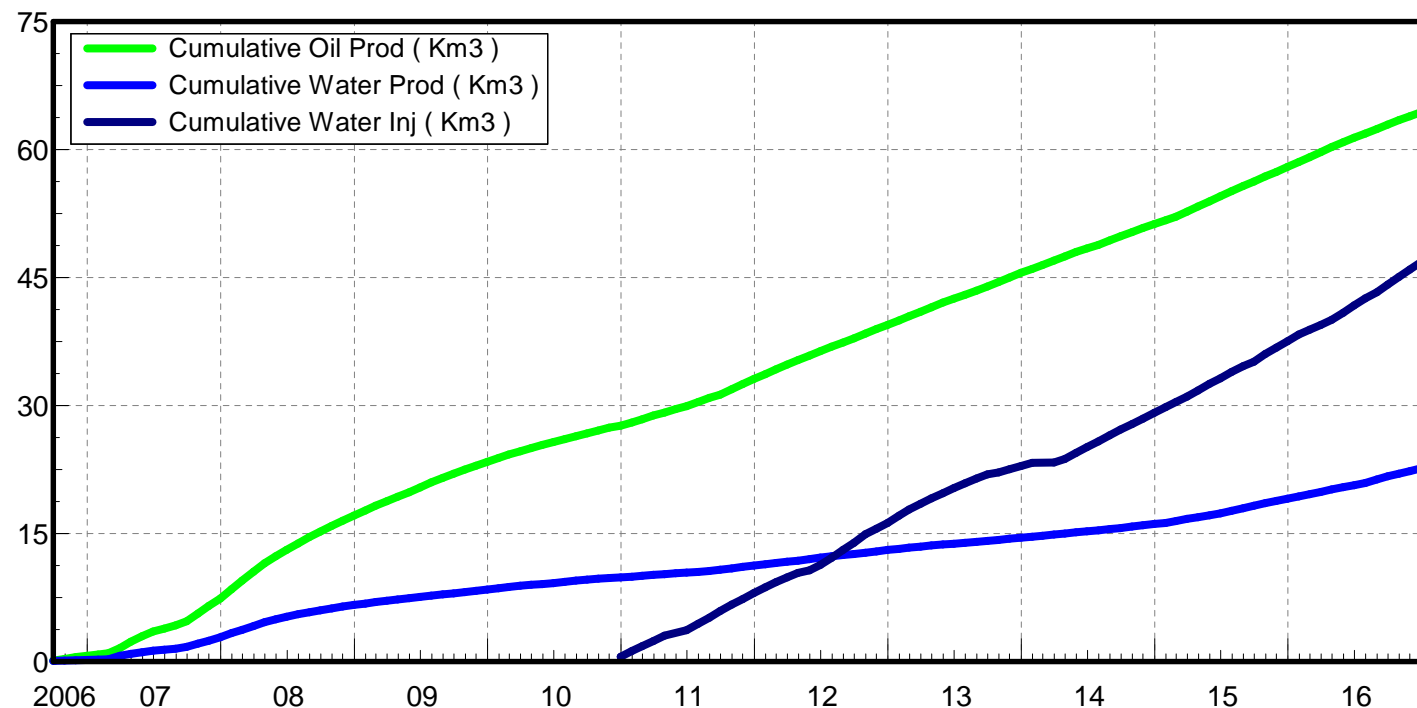
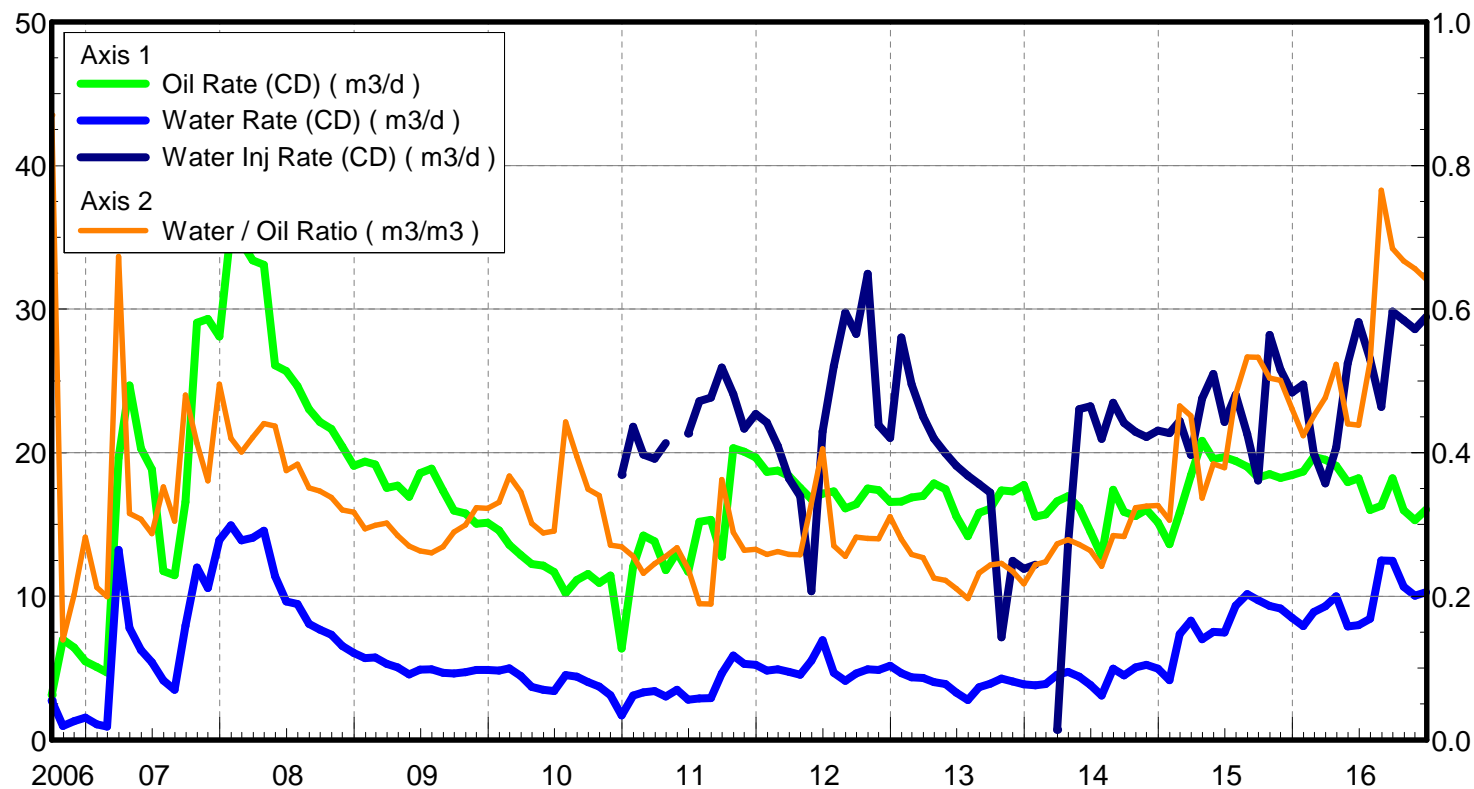
July 27, 2017

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 14.80 m3/d

Water Rate (CD) : 7.58 m3/d

Water Inj Rate (CD) : 44.17 m3/d



Pattern: 02/05-18-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.69 m3/m3

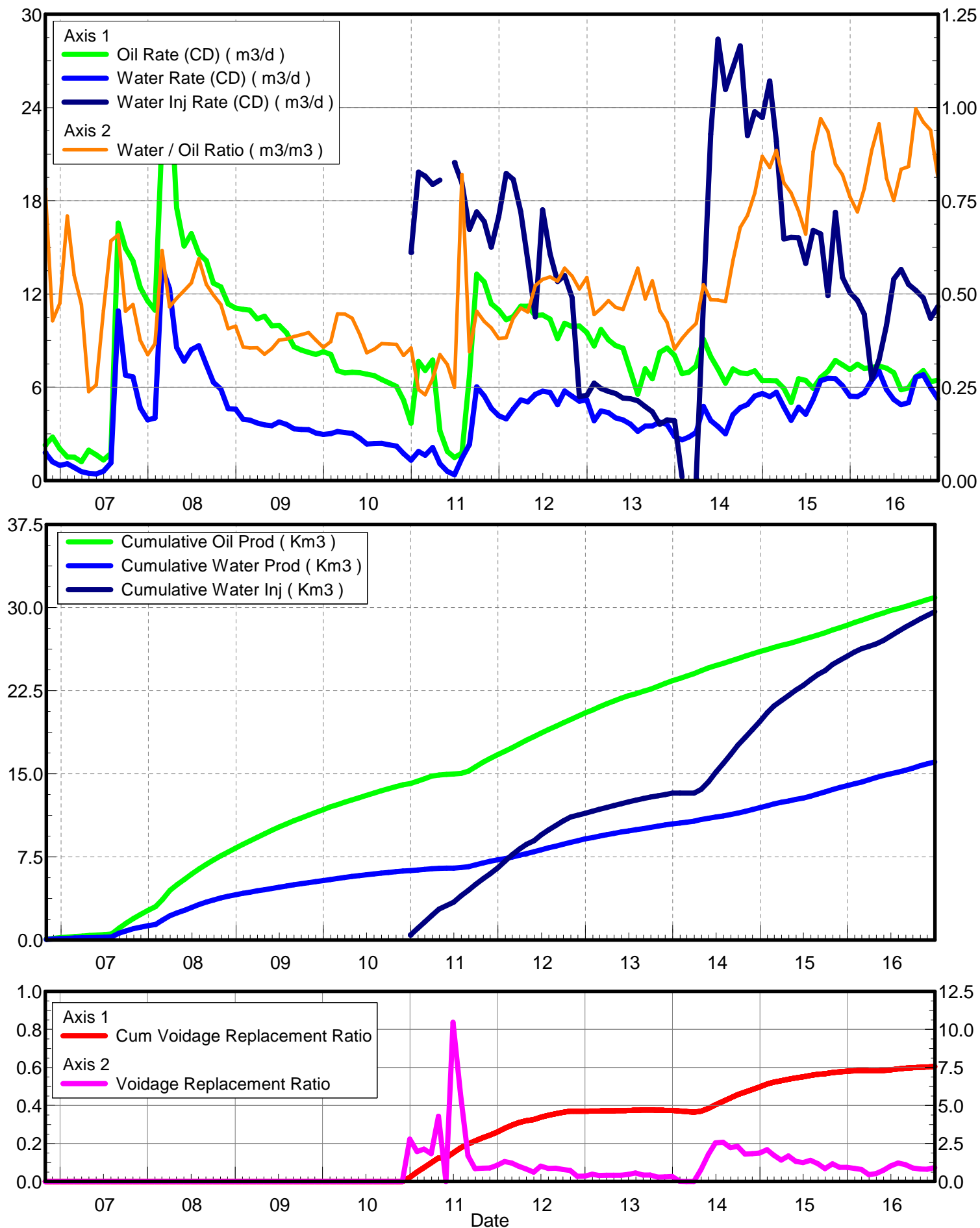
July 27, 2017

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 6.43 m3/d

Water Rate (CD) : 5.90 m3/d

Water Inj Rate (CD) : 10.93 m3/d



Pattern: 02/12-18-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.64 m3/m3

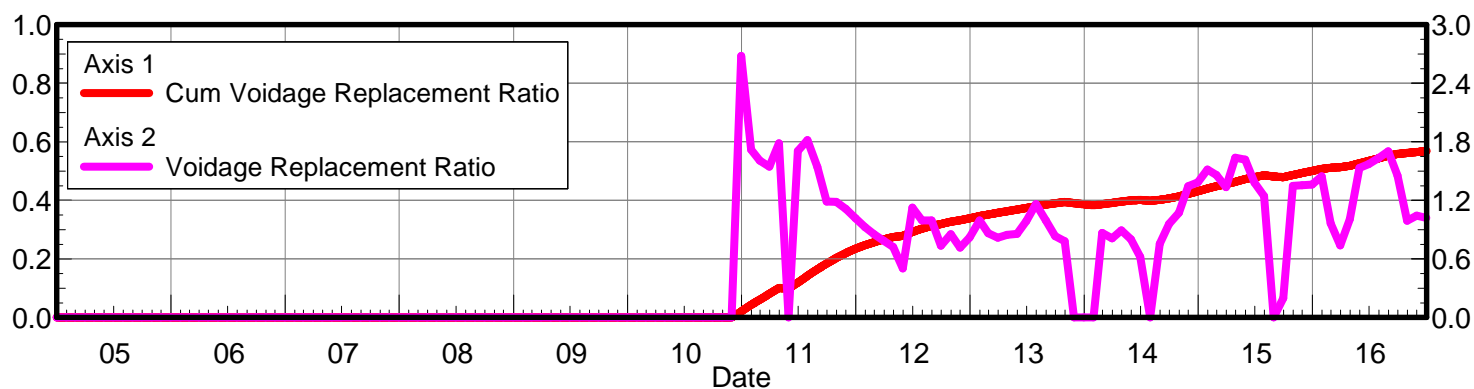
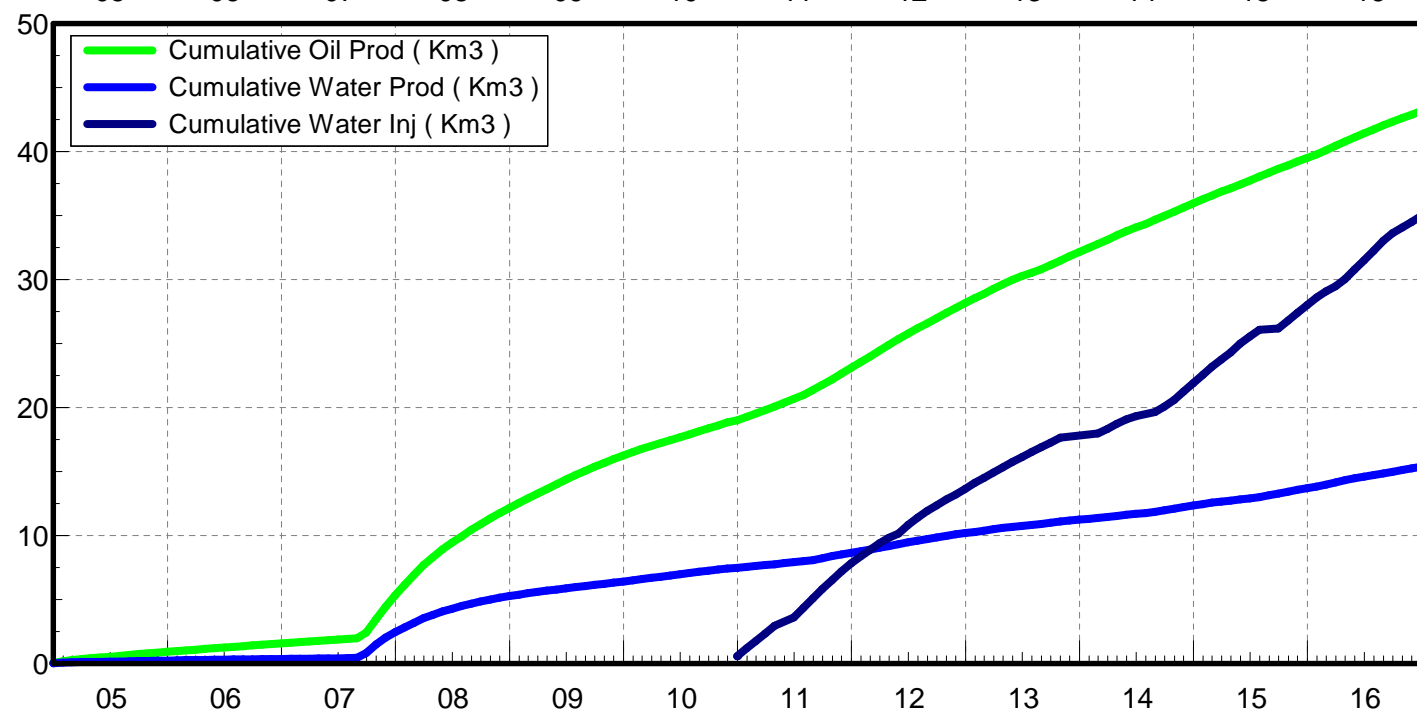
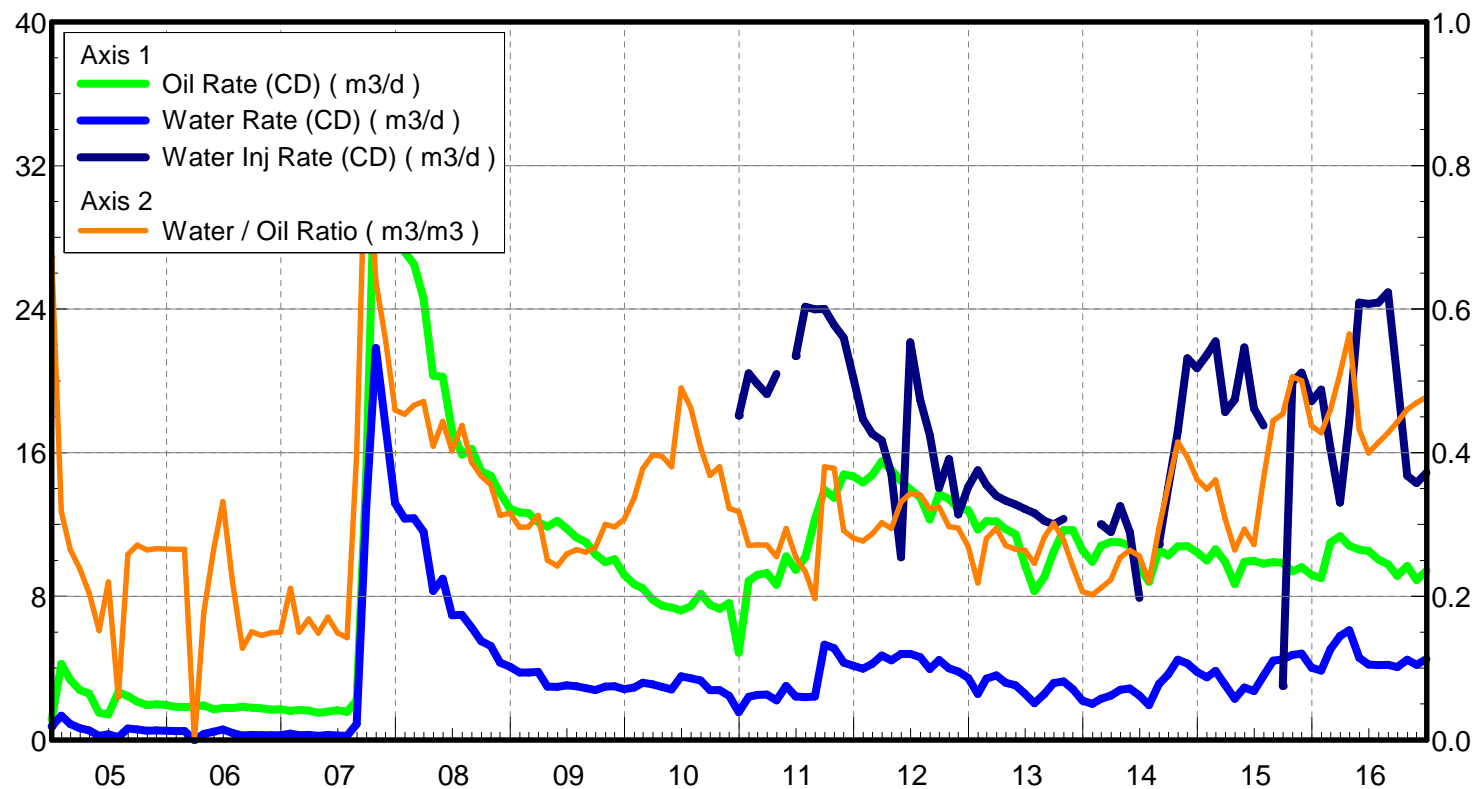
Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 8.75 m3/d

Water Rate (CD) : 5.56 m3/d

Water Inj Rate (CD) : 24.60 m3/d

July 27, 2017



Pattern: 02/04-19-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.50 m3/m3

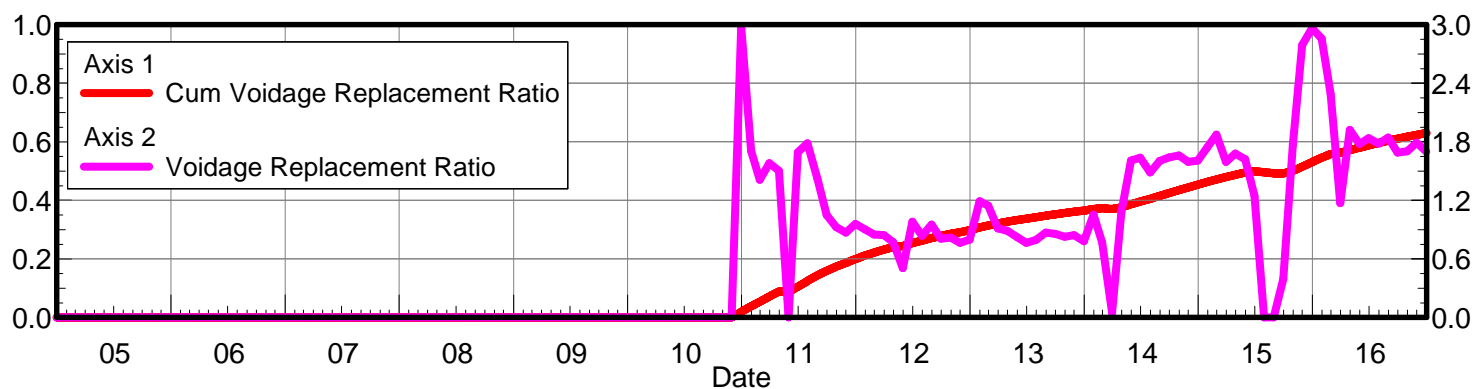
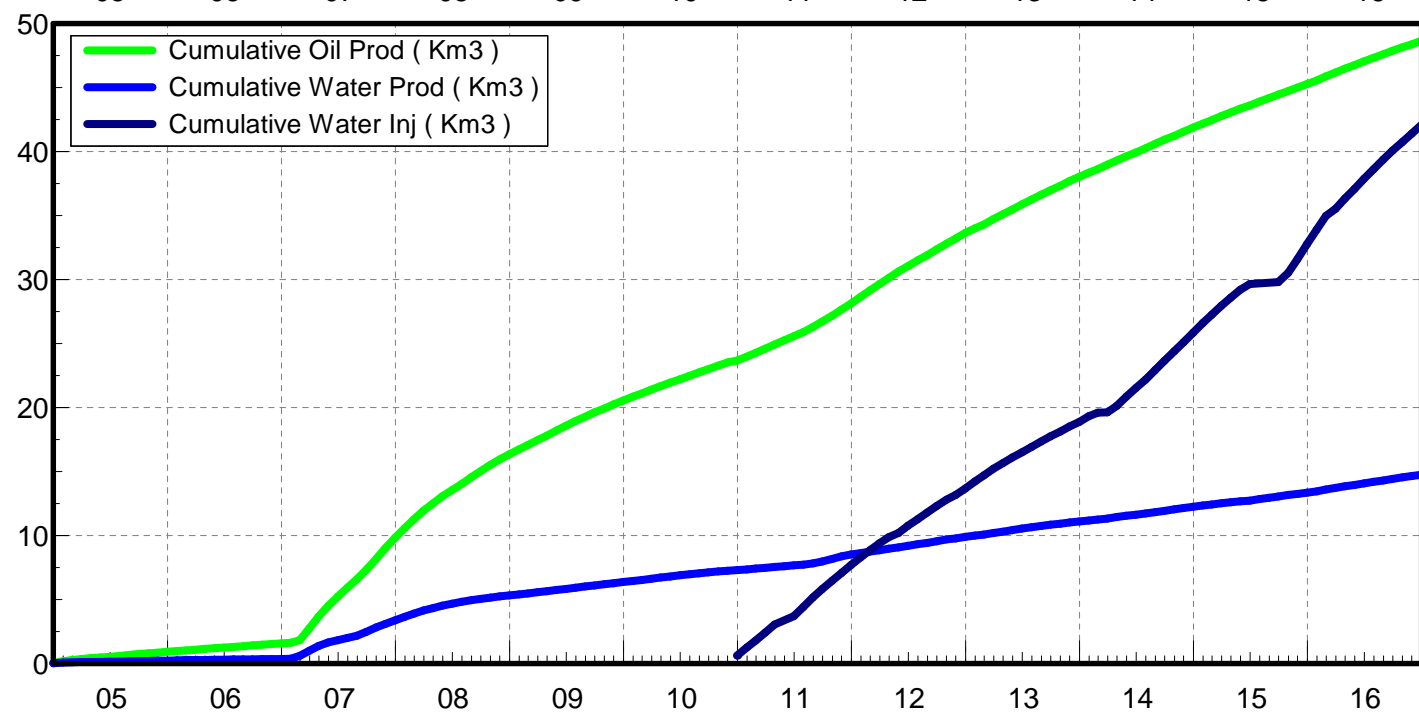
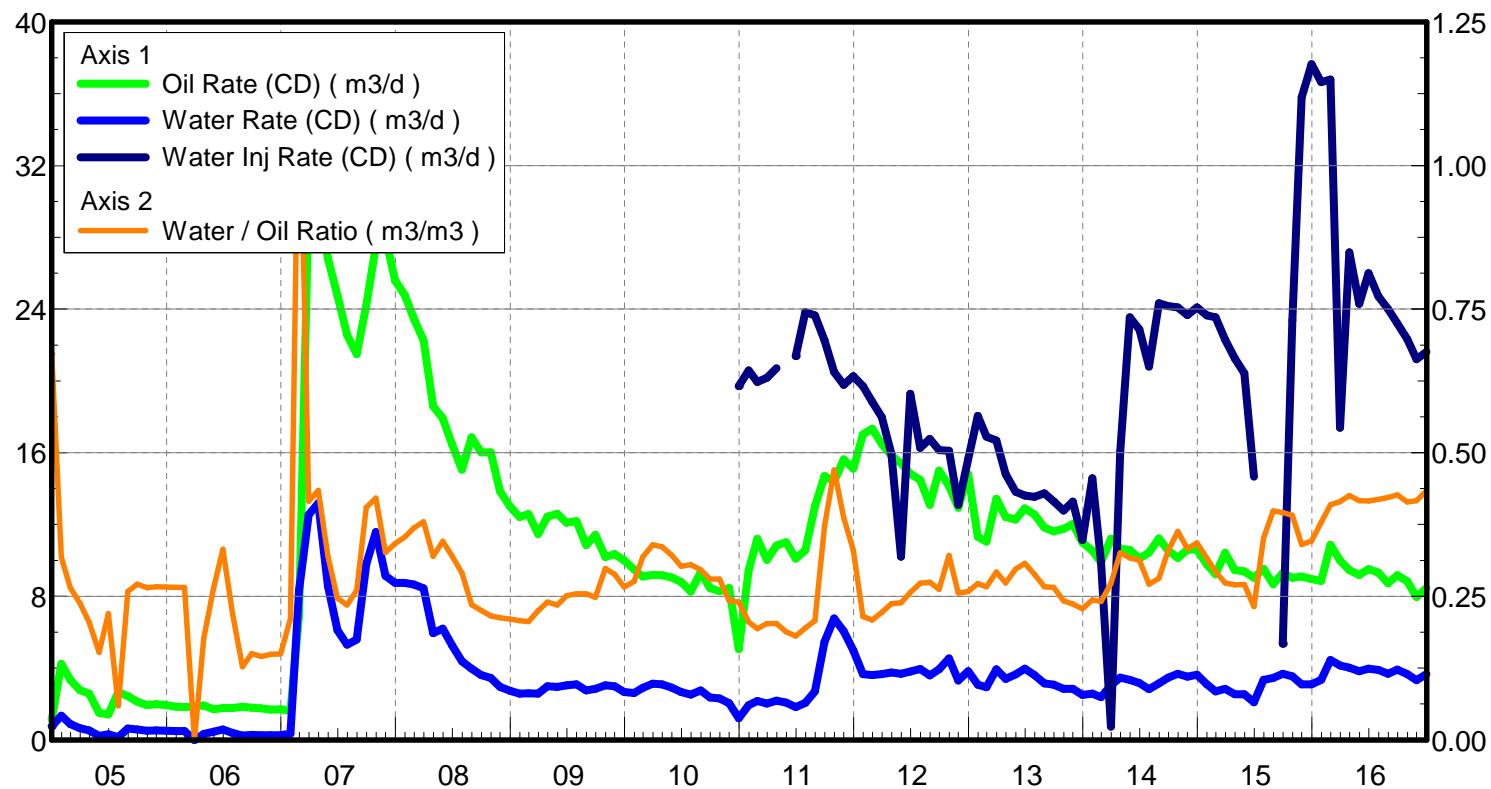
July 27, 2017

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 8.48 m3/d

Water Rate (CD) : 4.27 m3/d

Water Inj Rate (CD) : 19.30 m3/d



Pattern: 02/12-19-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.40 m3/m3

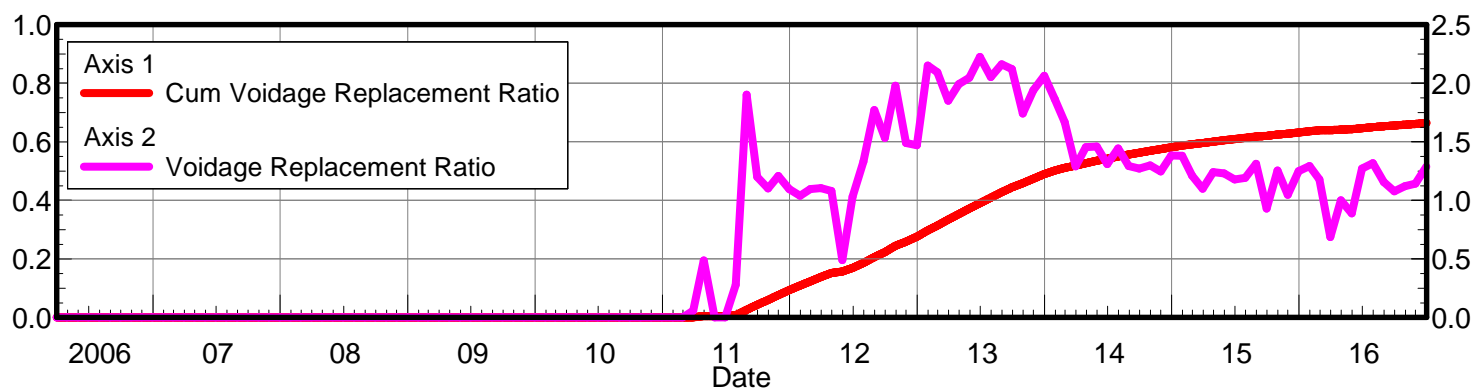
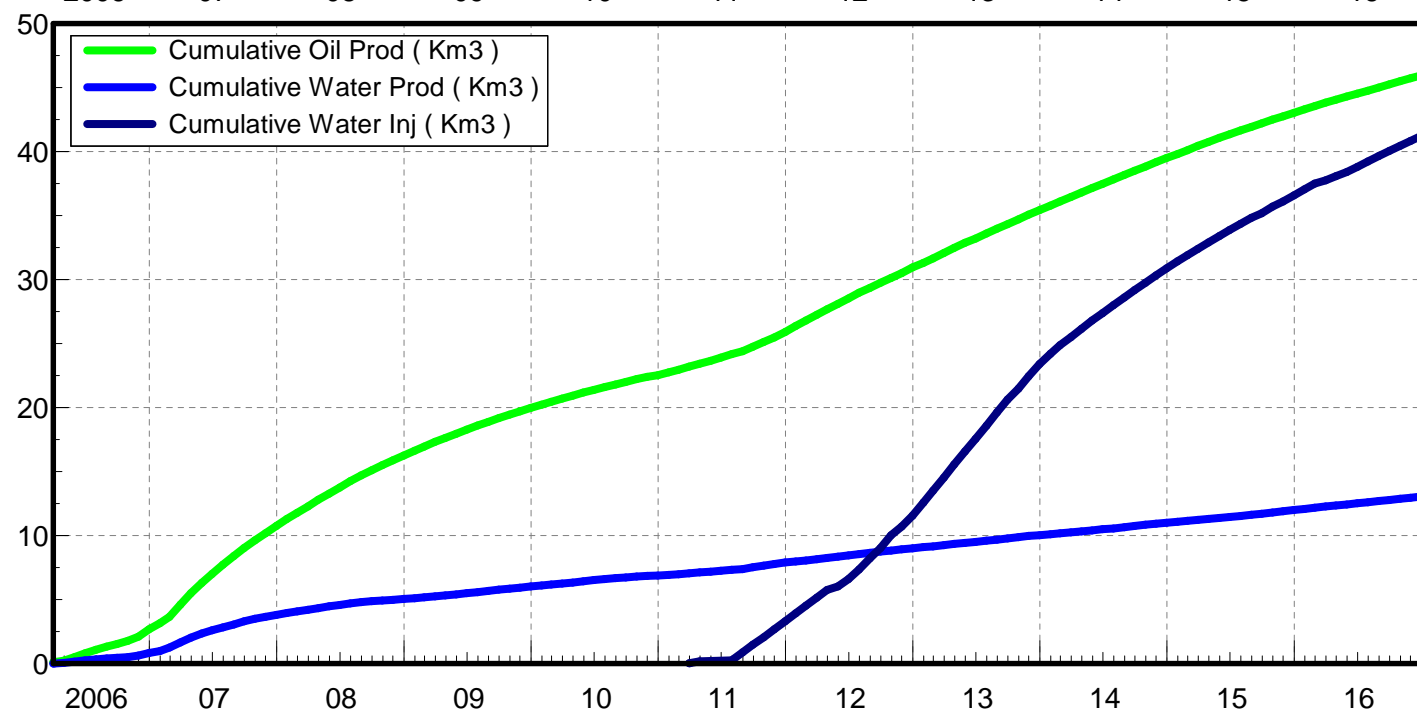
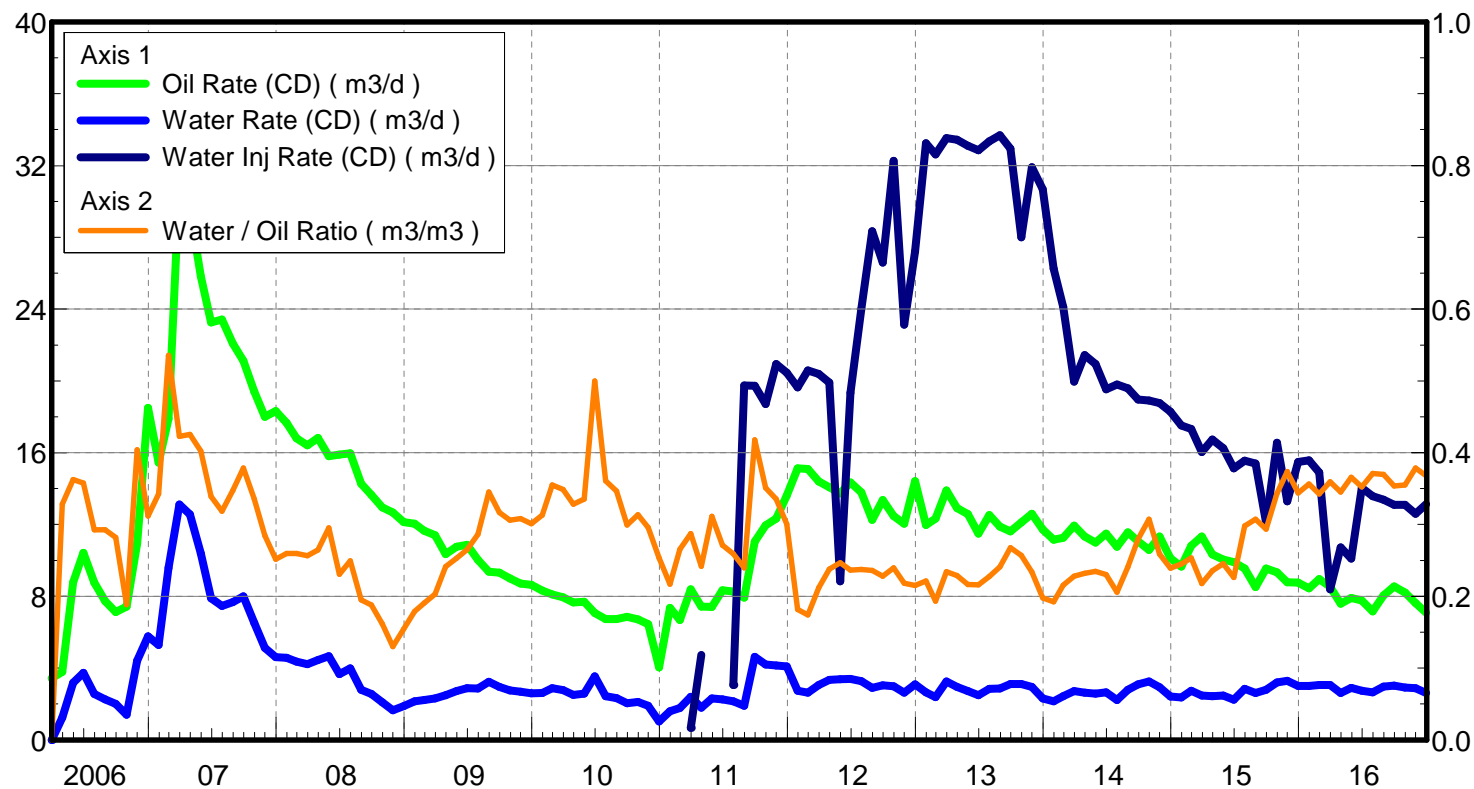
July 27, 2017

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 6.51 m3/d

Water Rate (CD) : 3.00 m3/d

Water Inj Rate (CD) : 12.93 m3/d



Pattern: 03/16-19-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.52 m3/m3

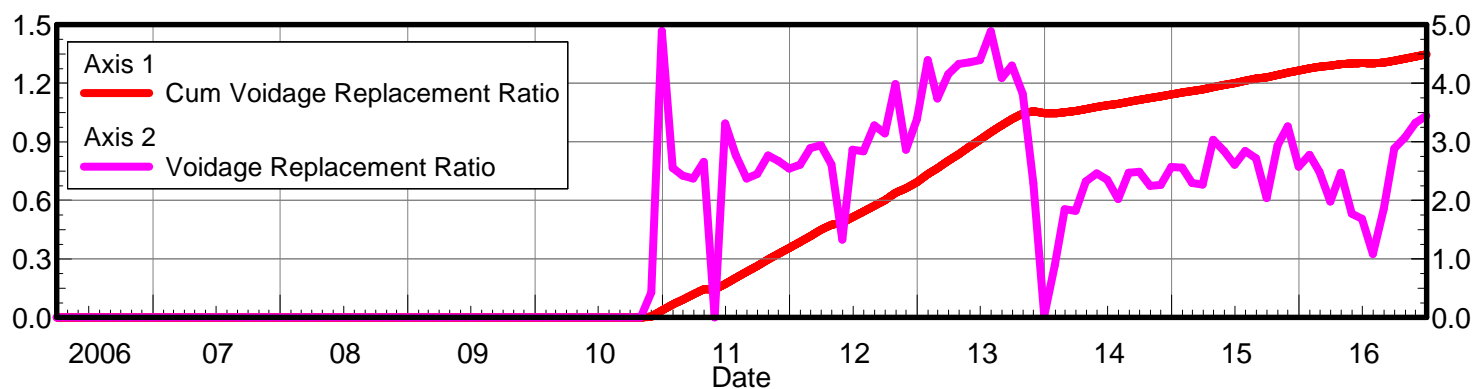
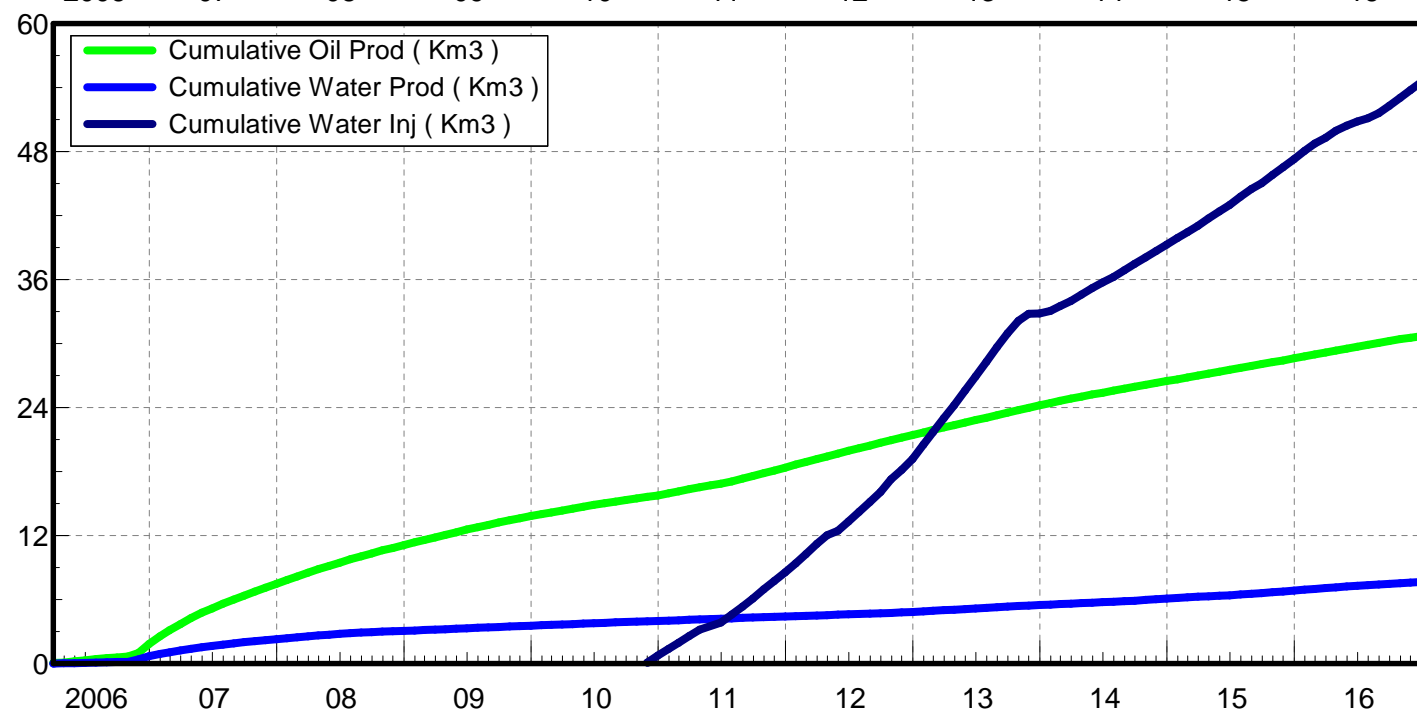
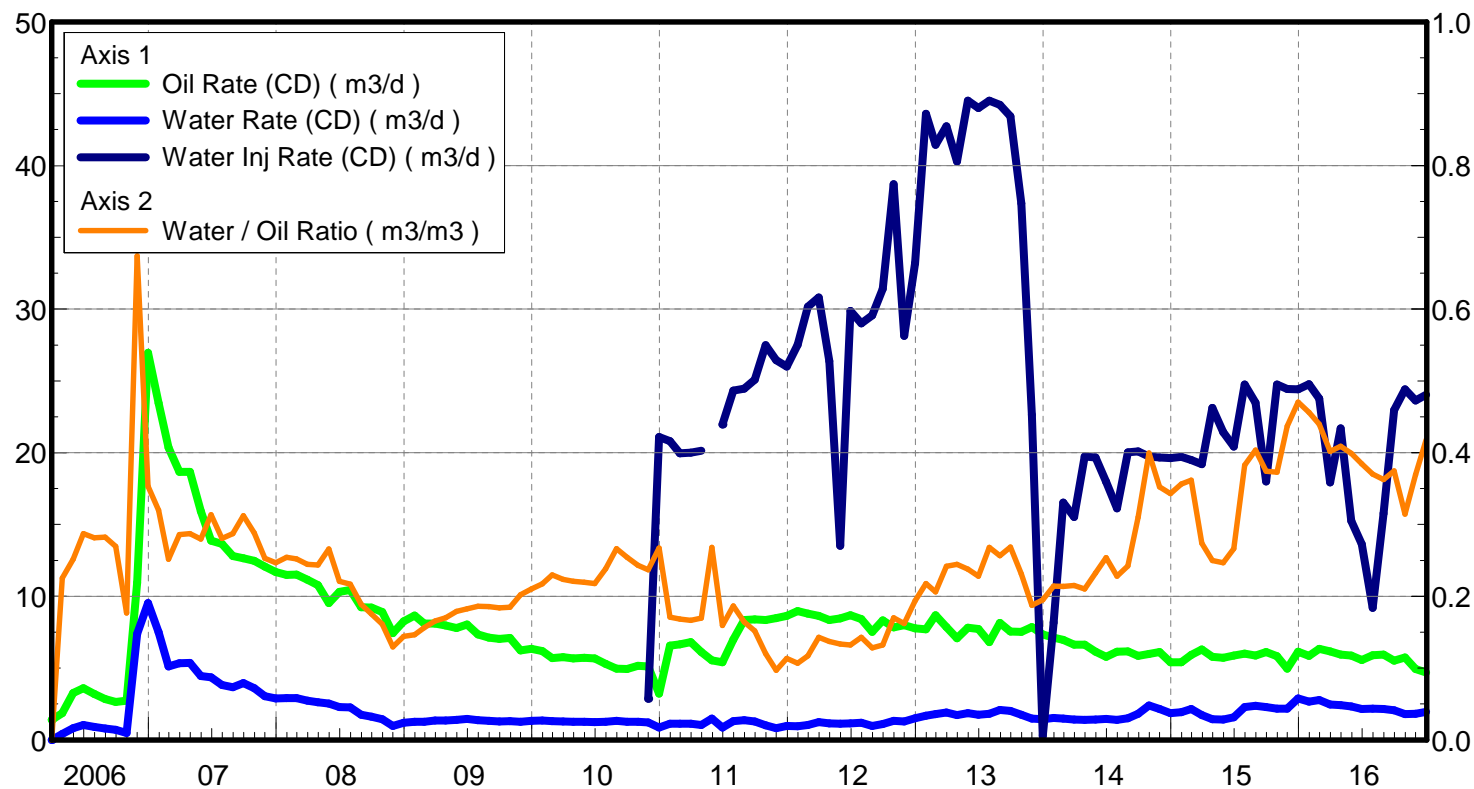
July 27, 2017

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 4.27 m3/d

Water Rate (CD) : 2.76 m3/d

Water Inj Rate (CD) : 4.23 m3/d



Pattern: 02/01-30-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.52 m3/m3

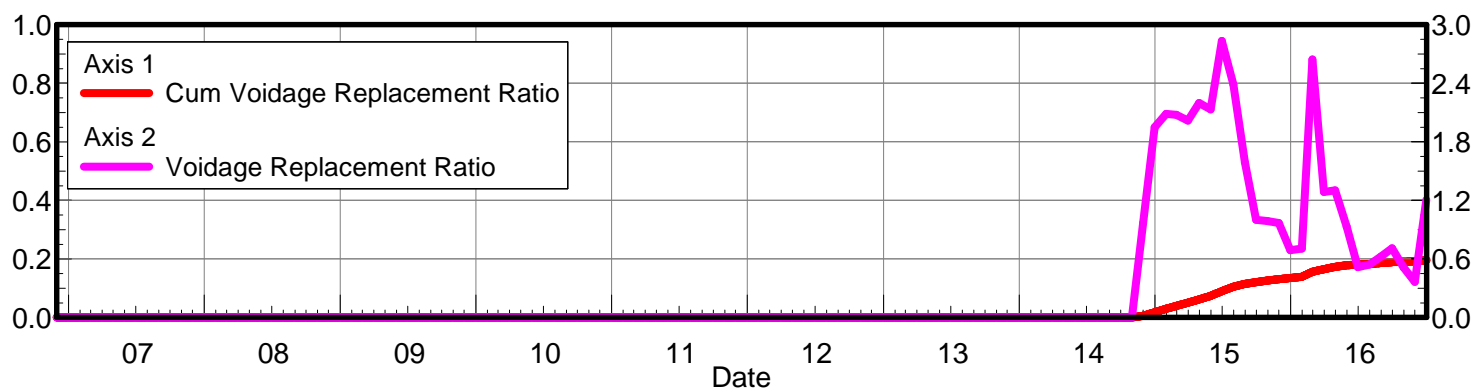
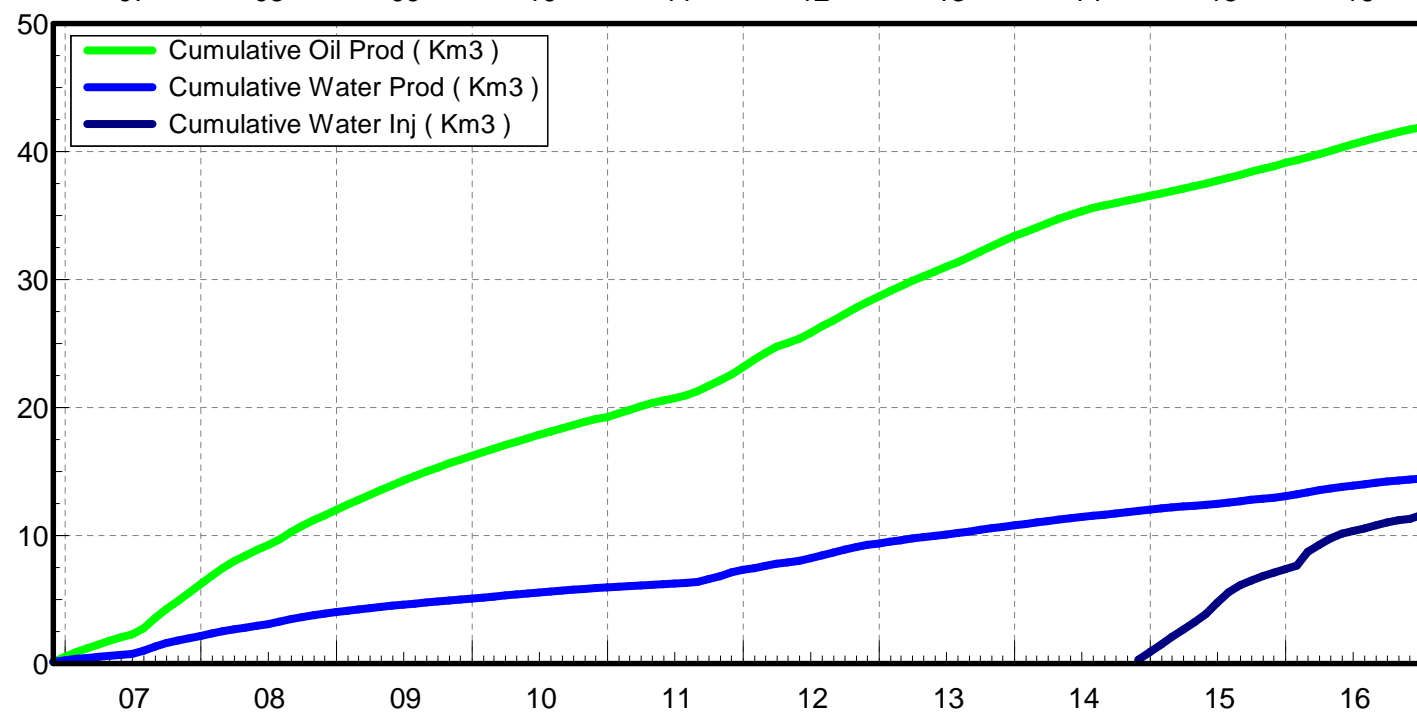
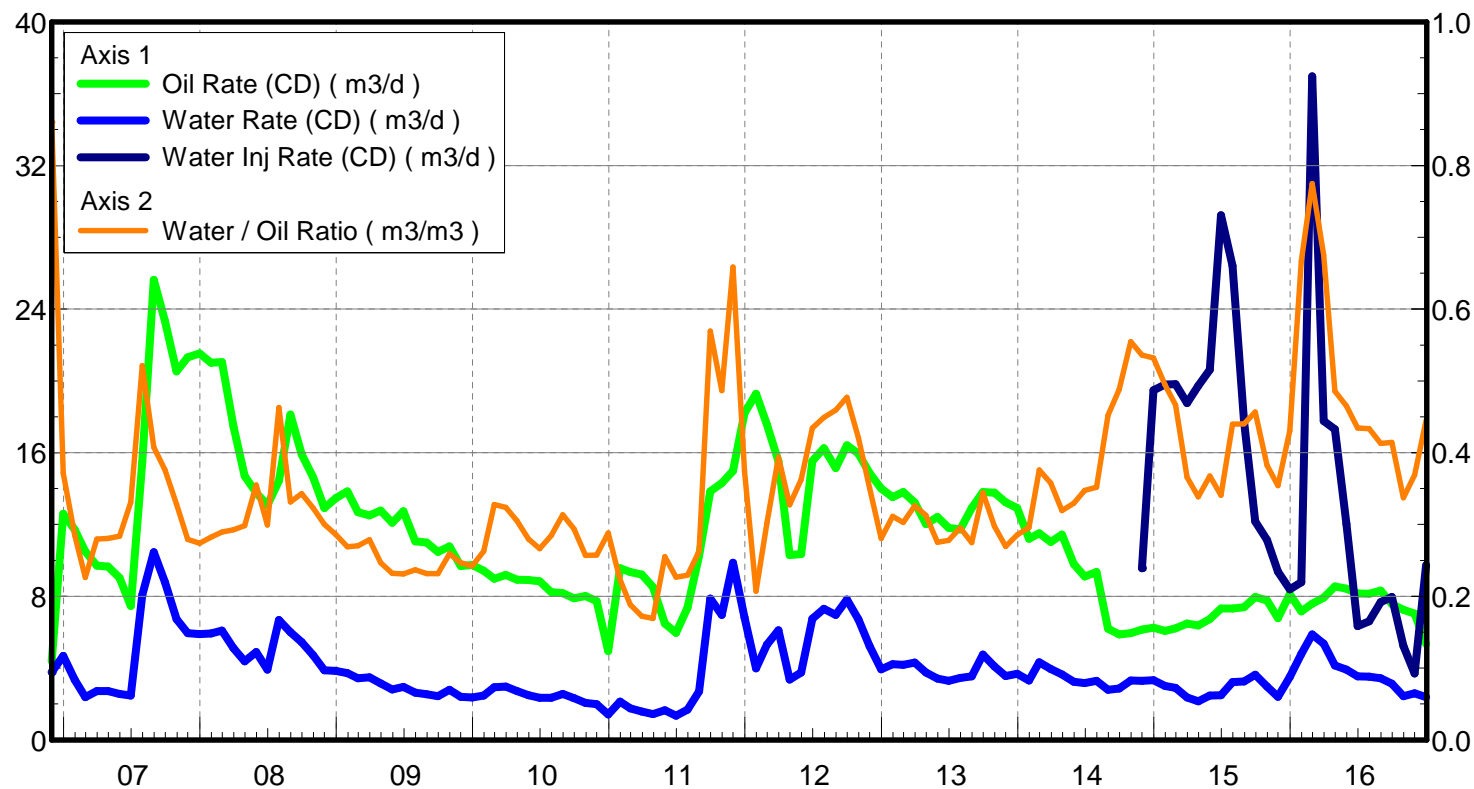
Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 6.96 m3/d

Water Rate (CD) : 4.40 m3/d

Water Inj Rate (CD) : 33.00 m3/d

July 27, 2017



Pattern: 02/08-30-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.49 m3/m3

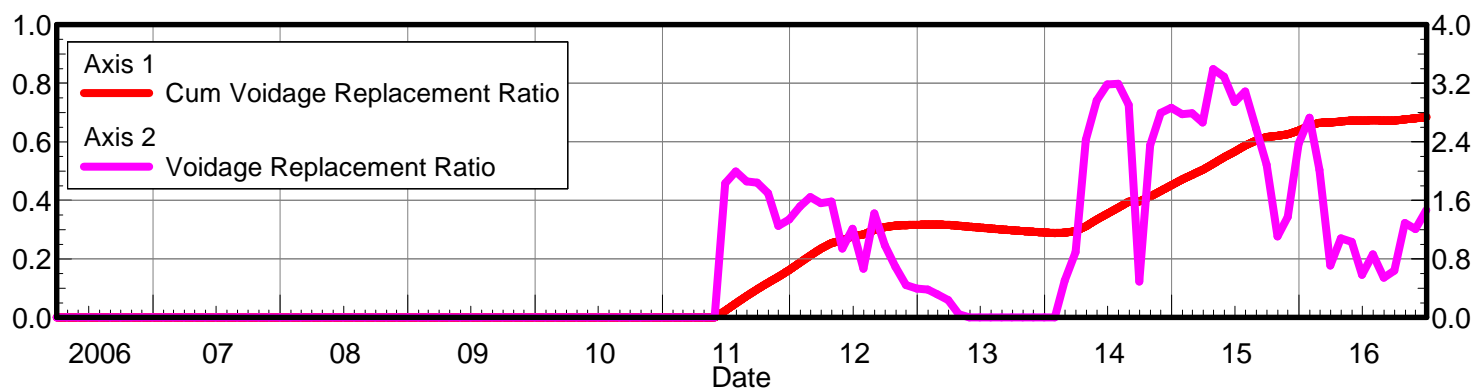
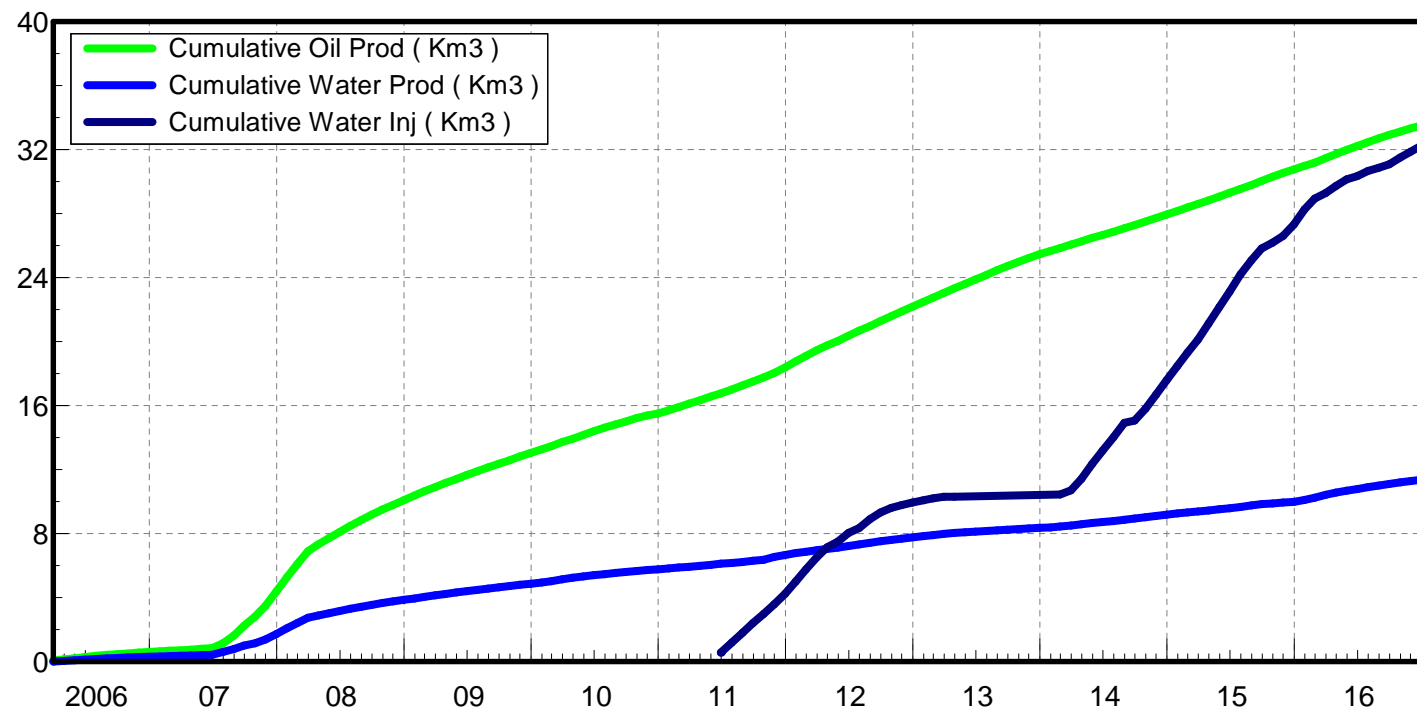
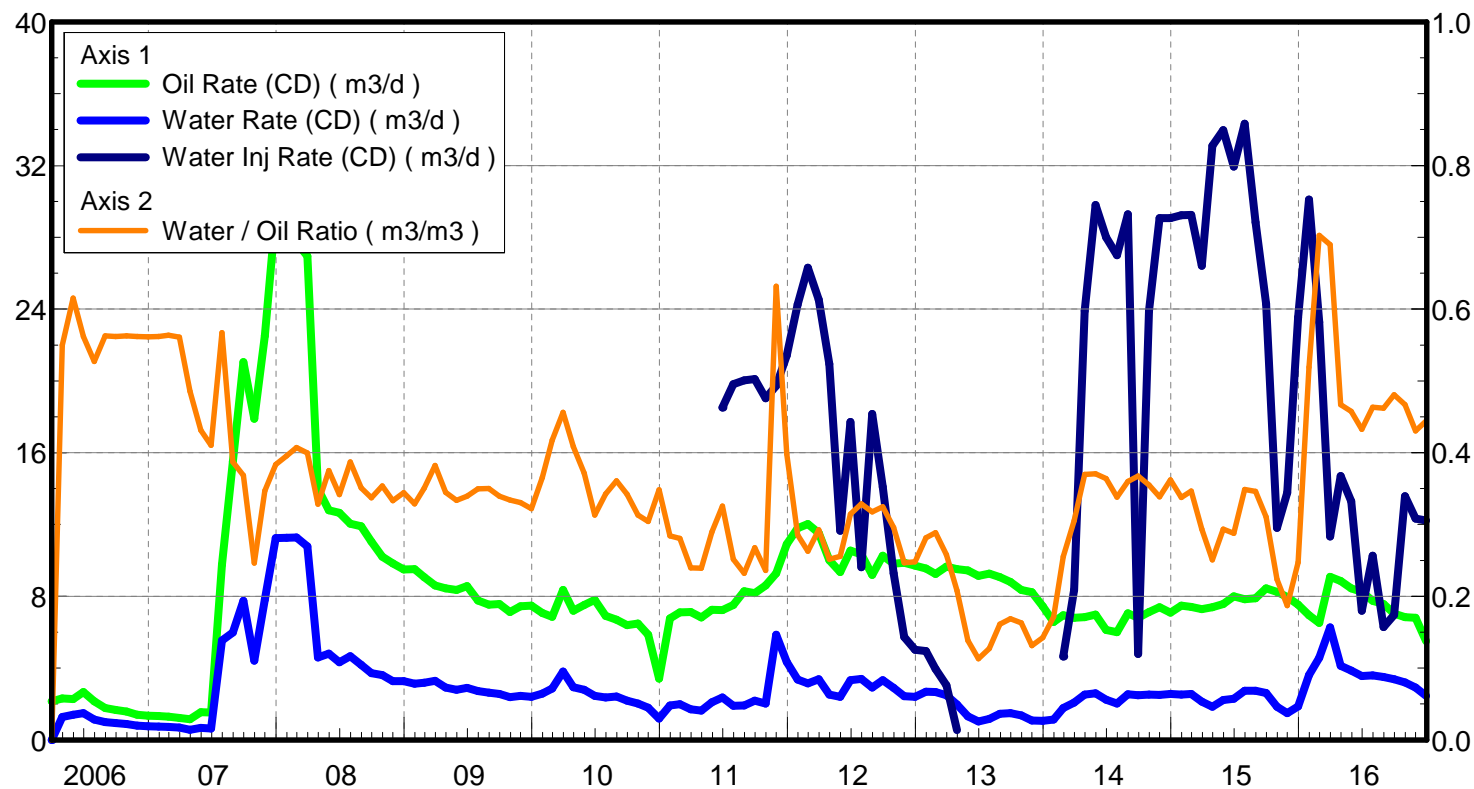
July 27, 2017

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 6.34 m3/d

Water Rate (CD) : 4.44 m3/d

Water Inj Rate (CD) : 26.63 m3/d



Pattern: 02/09-30-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 4.74 m3/m3

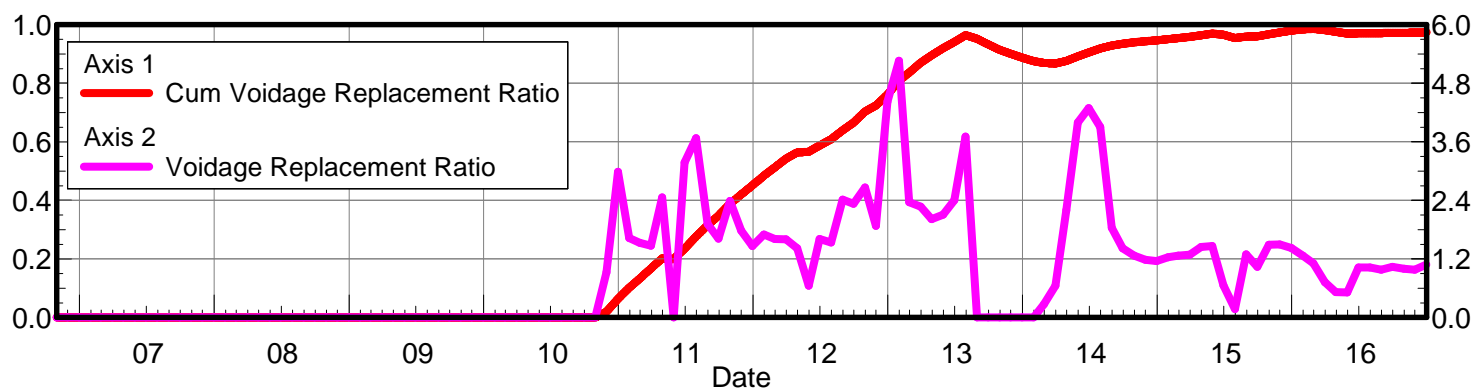
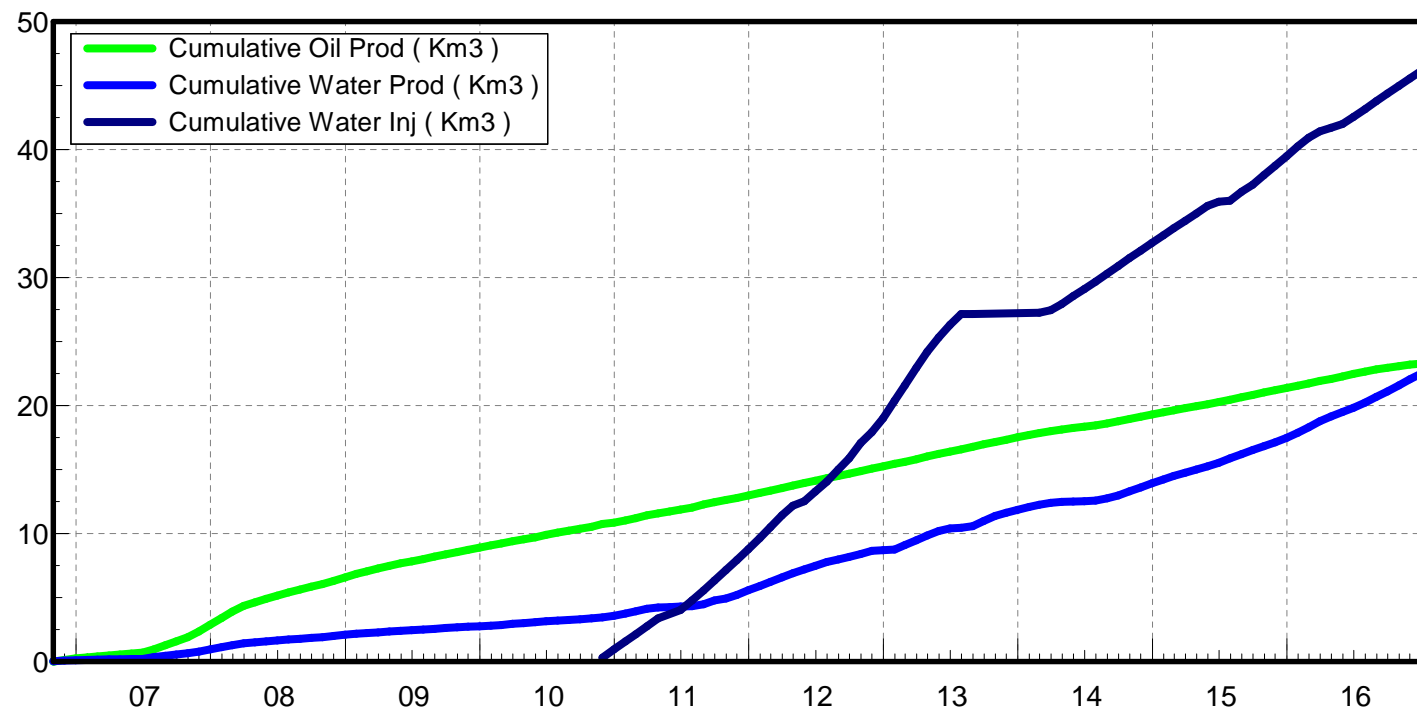
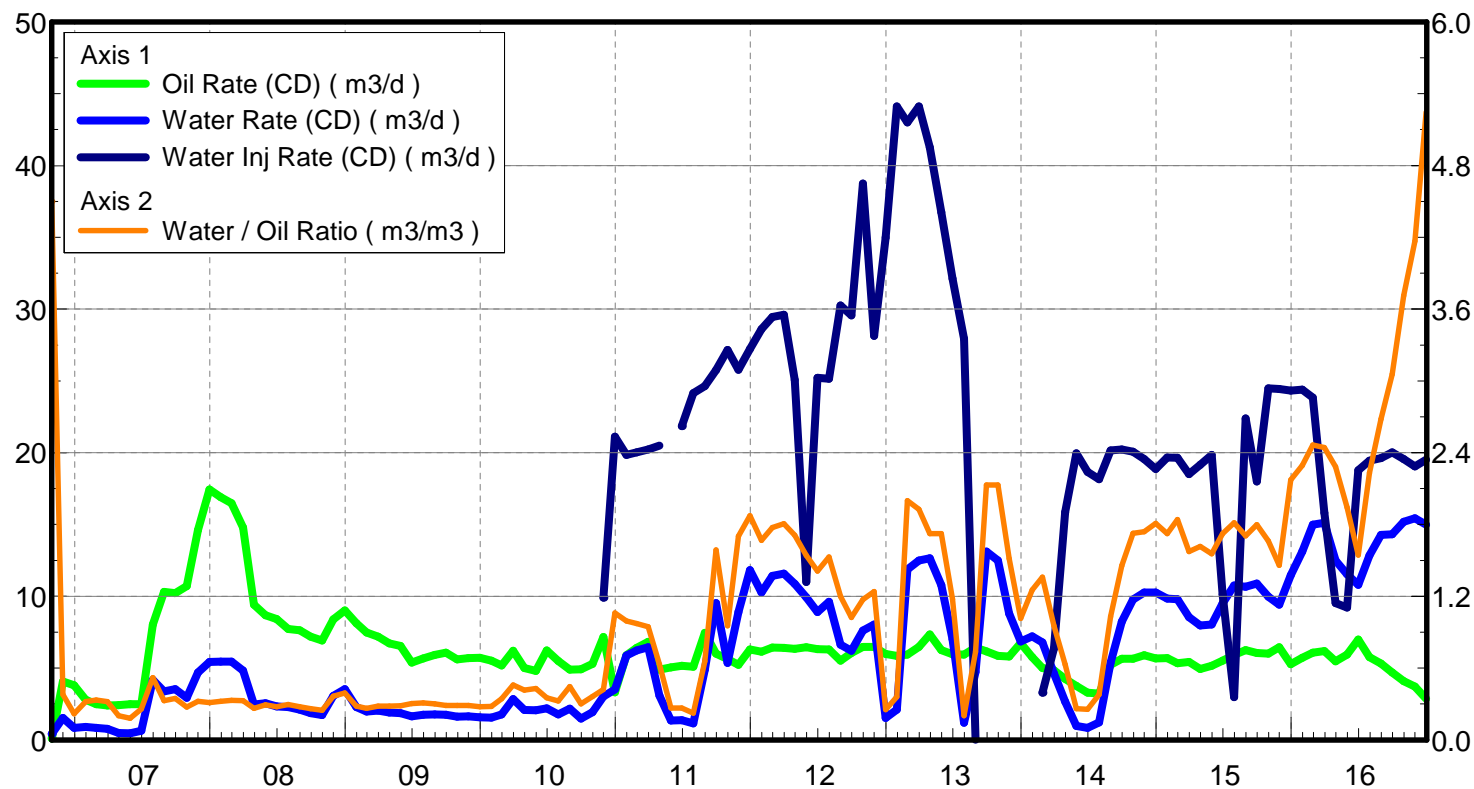
Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 3.64 m3/d

Water Rate (CD) : 6.09 m3/d

Water Inj Rate (CD) : 6.20 m3/d

July 27, 2017



Pattern: 02/16-30-007-28Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.98 m3/m3

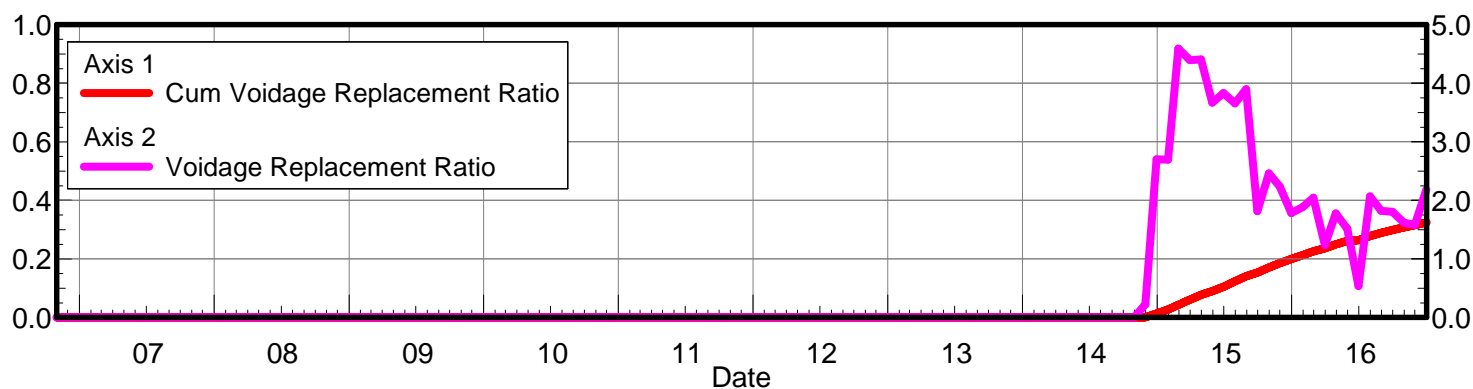
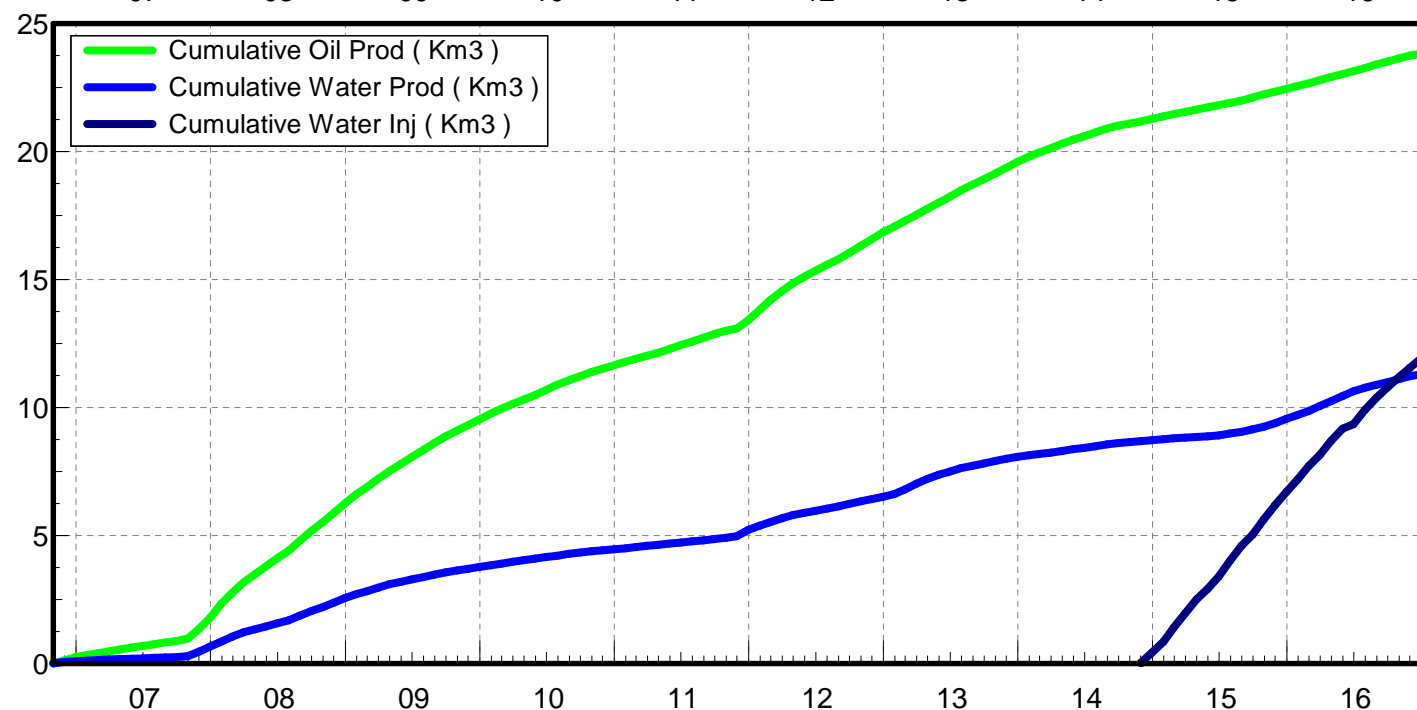
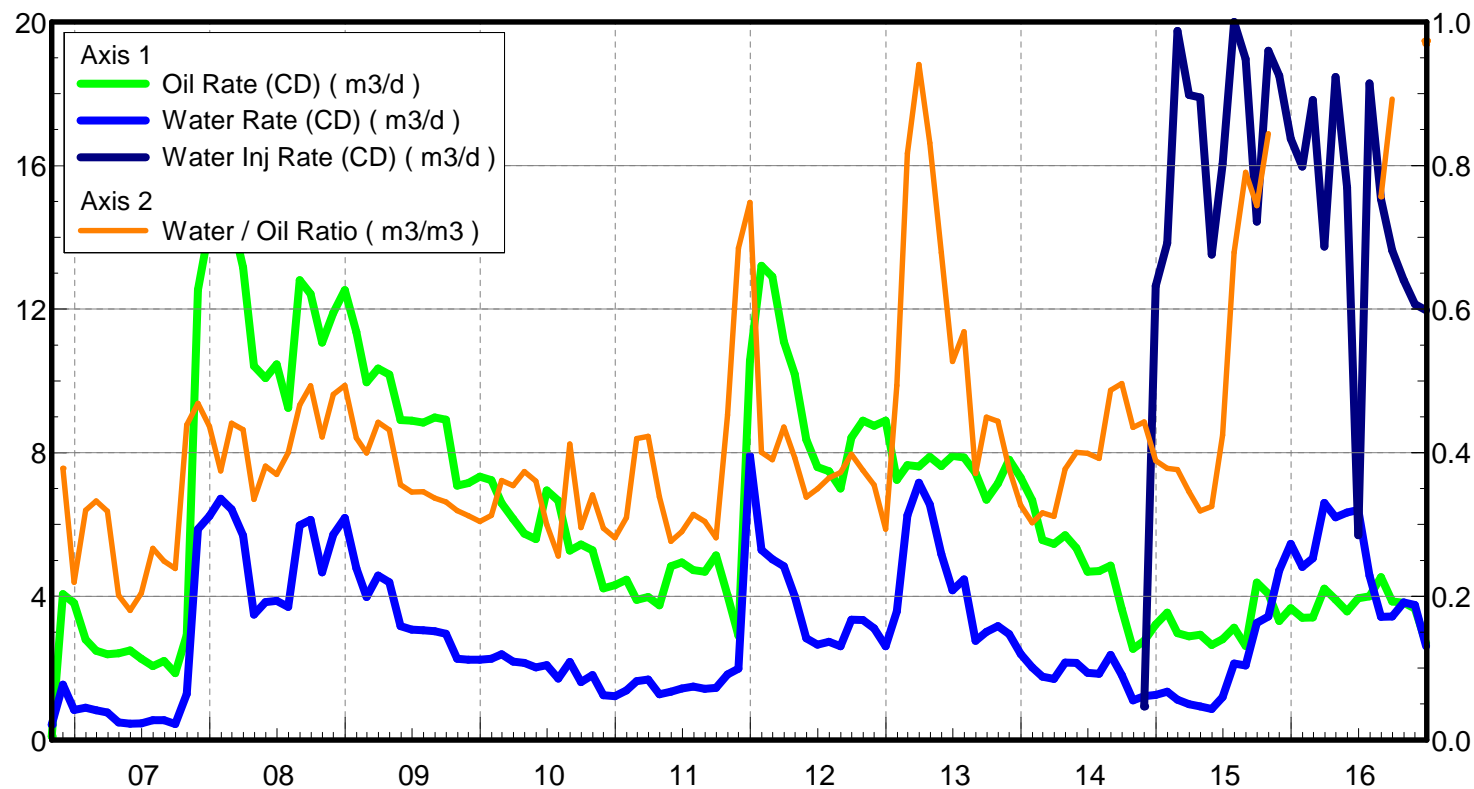
July 27, 2017

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 2.78 m3/d

Water Rate (CD) : 3.07 m3/d

Water Inj Rate (CD) : 10.77 m3/d



Pattern: 02/16-13-007-29Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.46 m3/m3

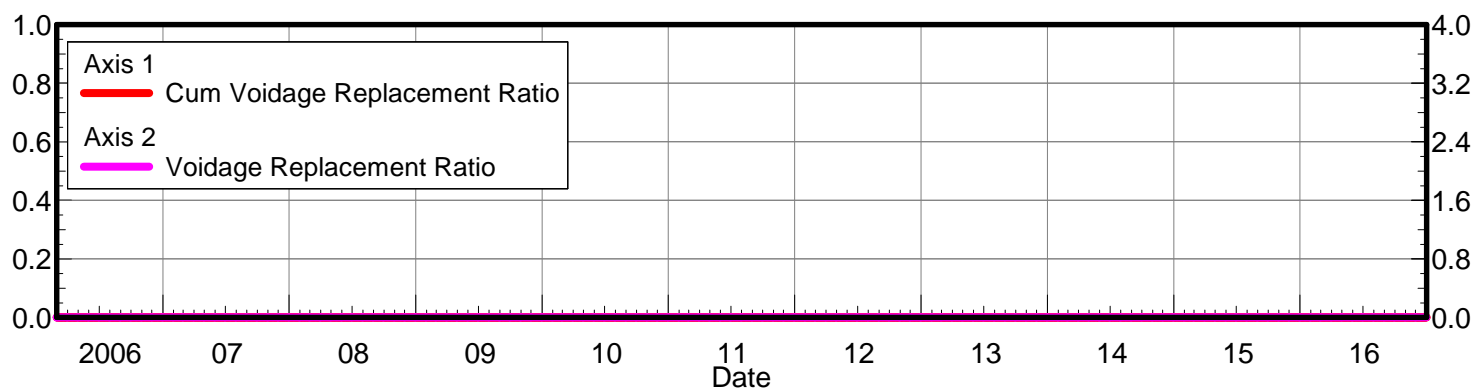
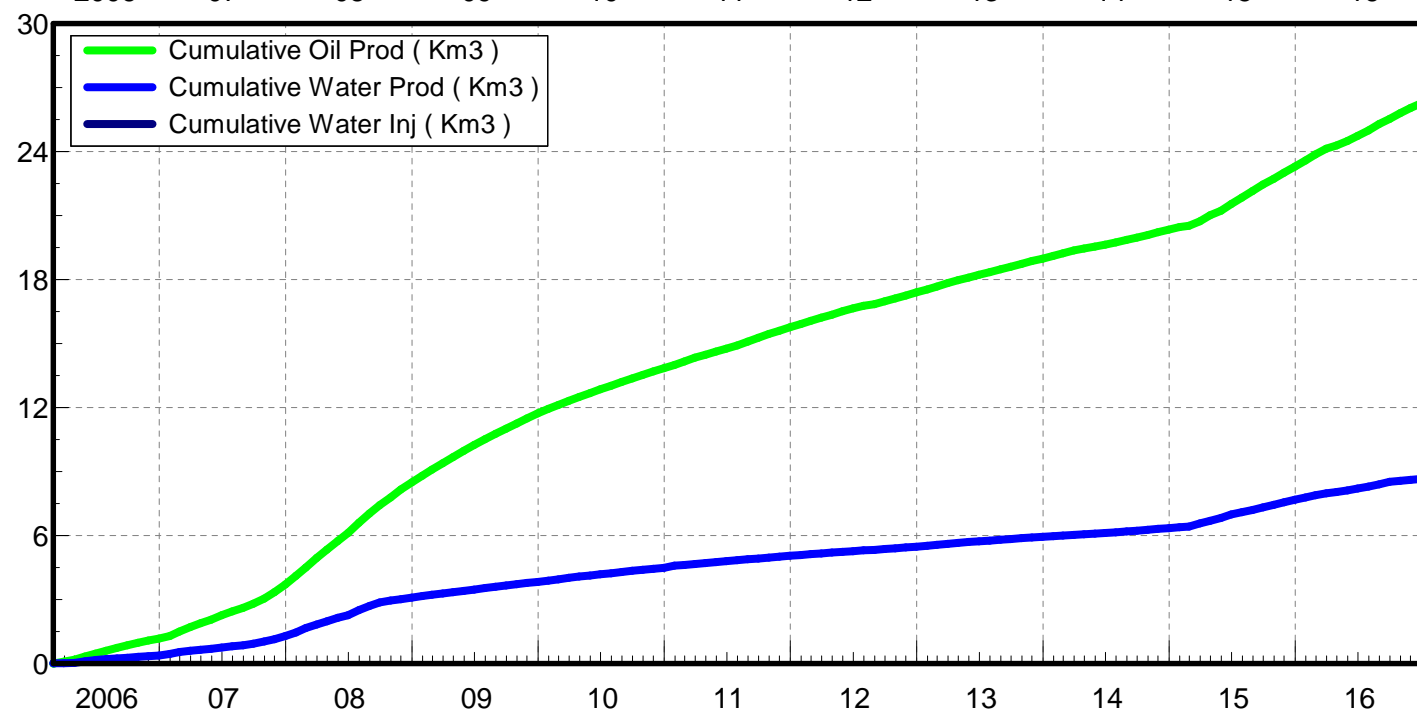
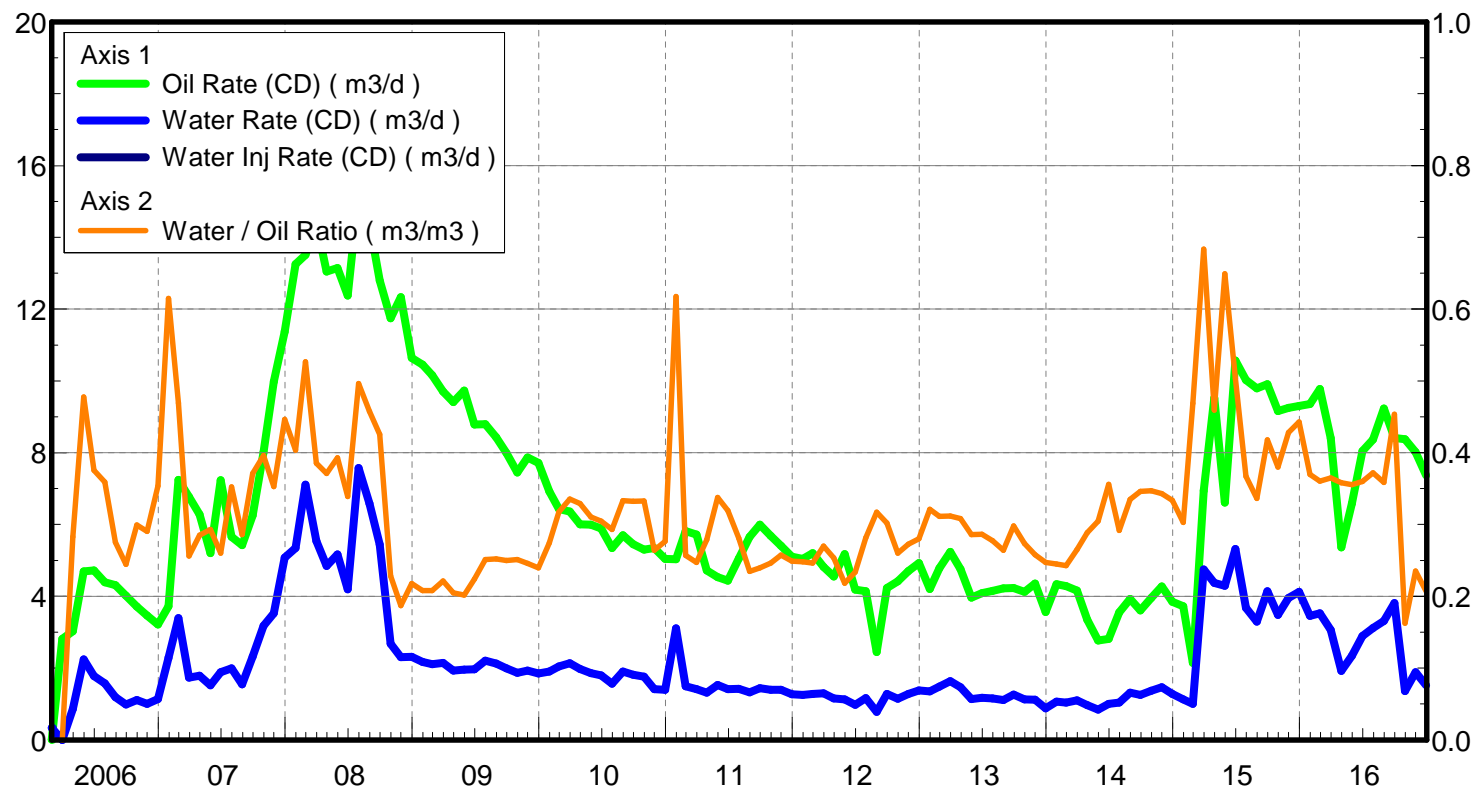
Operator: TUNDRA_OIL_&_GAS_LIMITED

July 27, 2017

Oil Rate (CD) : 6.62 m3/d

Water Rate (CD) : 2.41 m3/d

Water Inj Rate (CD) : * m3/d



Pattern: 02/12-24-007-29Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.86 m3/m3

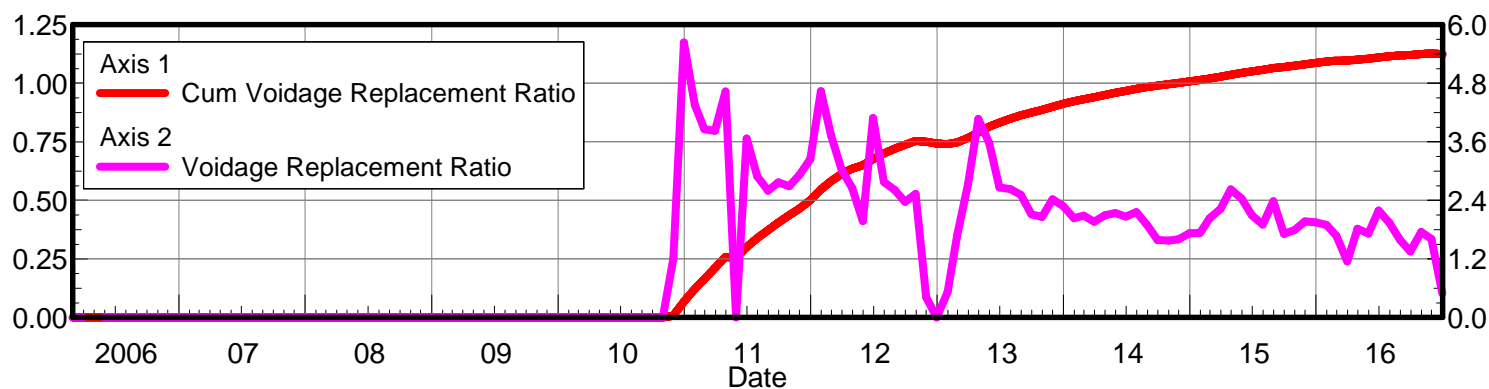
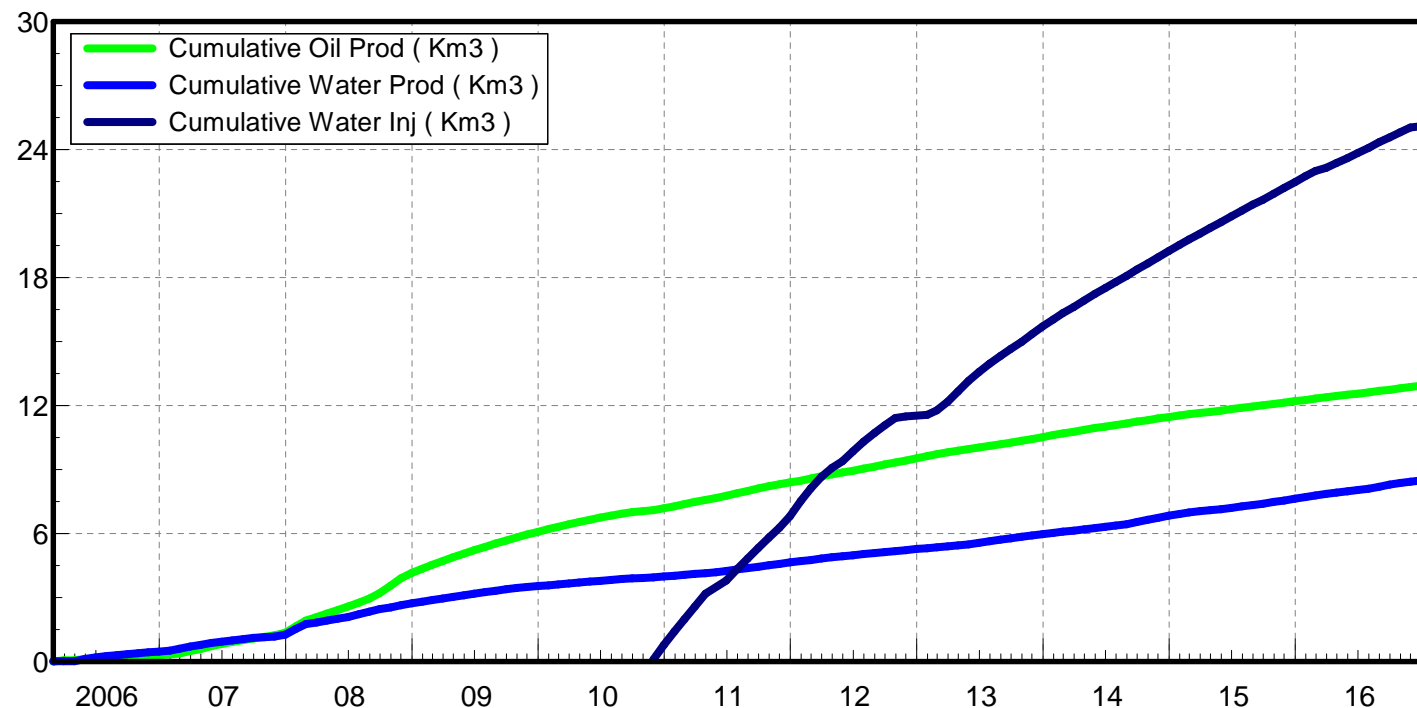
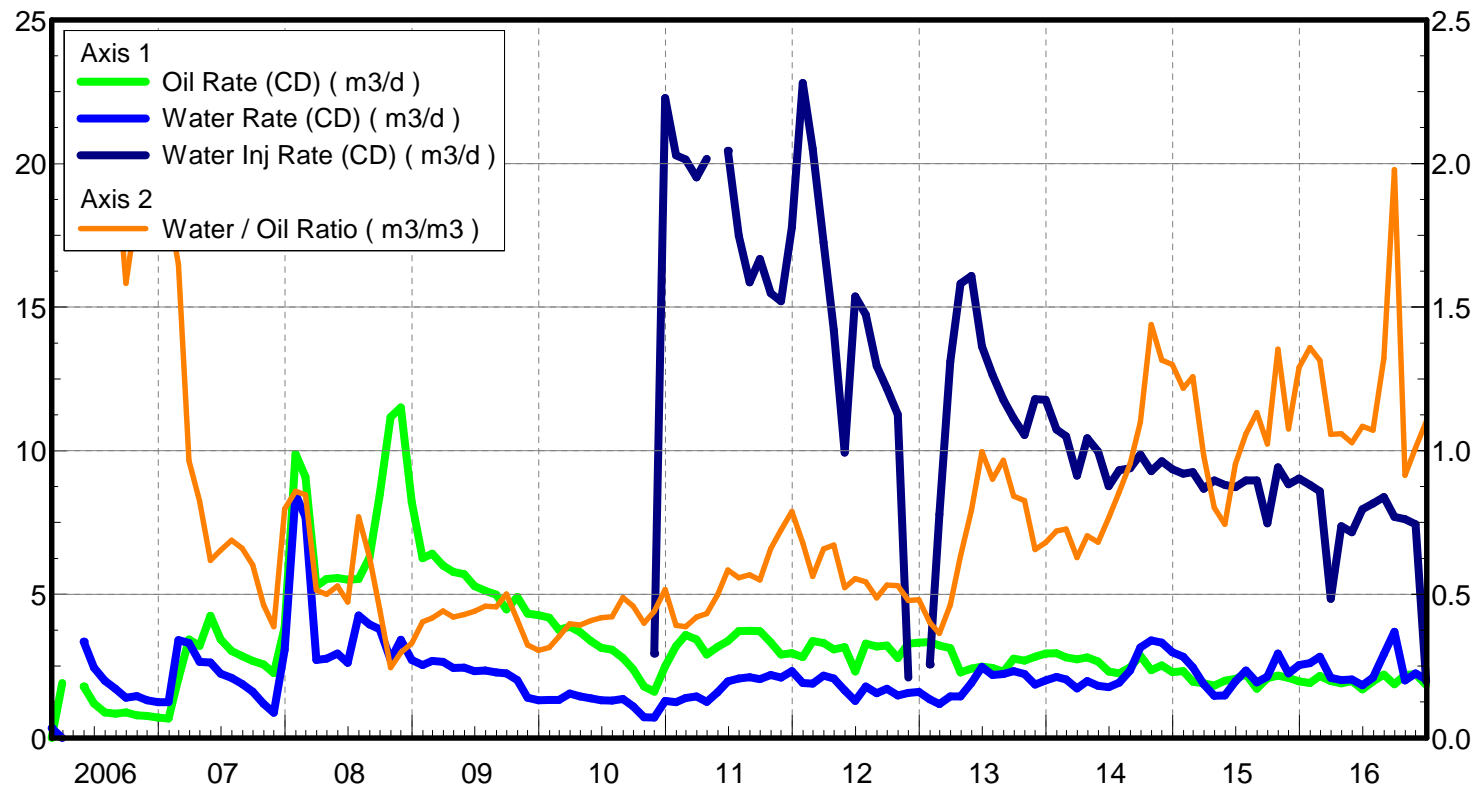
Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 1.82 m3/d

Water Rate (CD) : 1.66 m3/d

Water Inj Rate (CD) : 9.70 m3/d

July 27, 2017



Pattern: 02/04-25-007-29Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 1.10 m3/m3

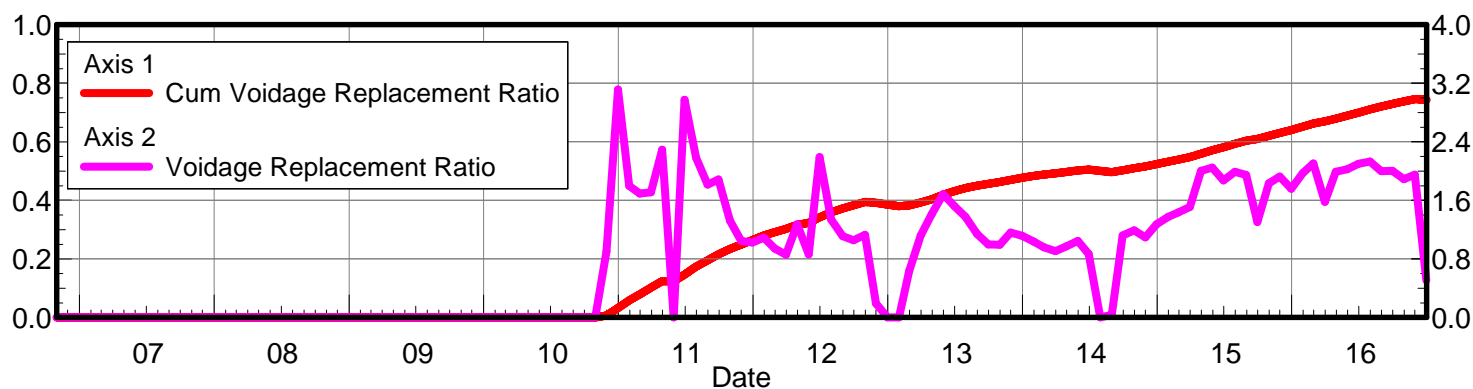
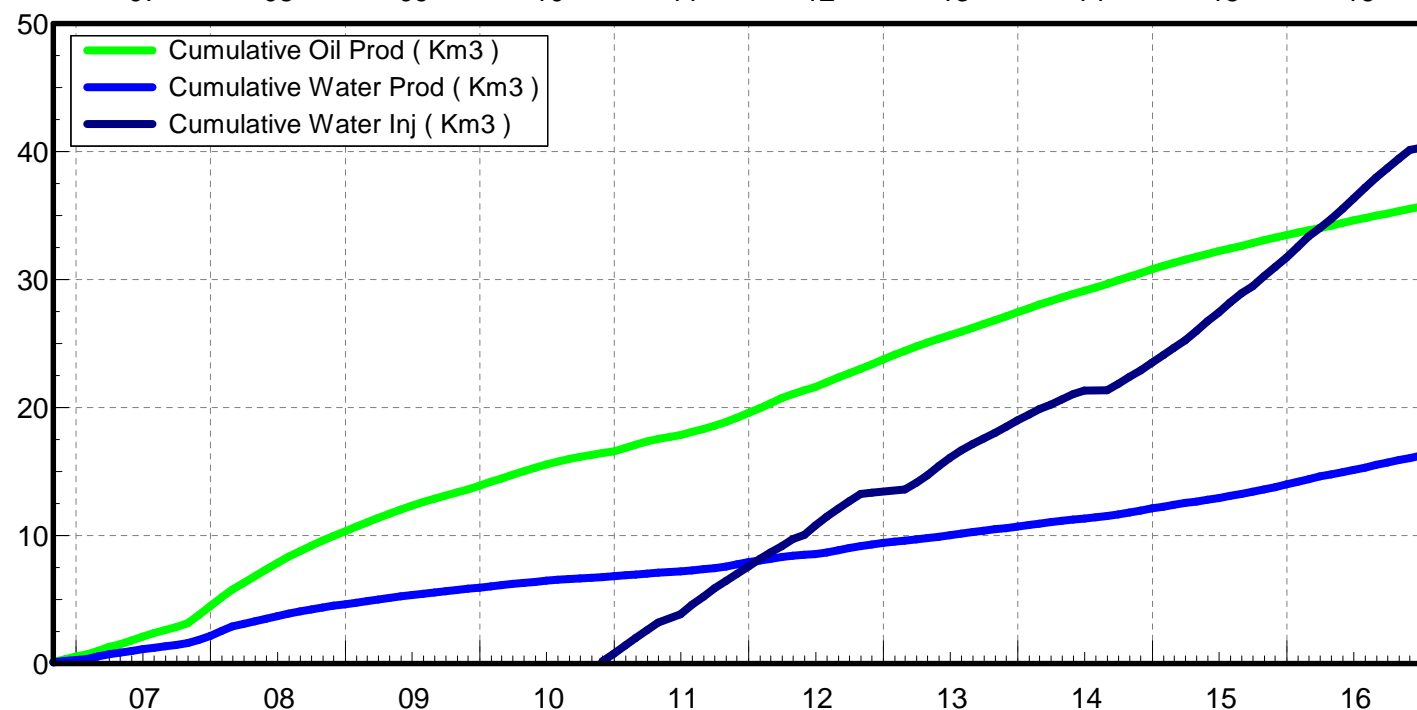
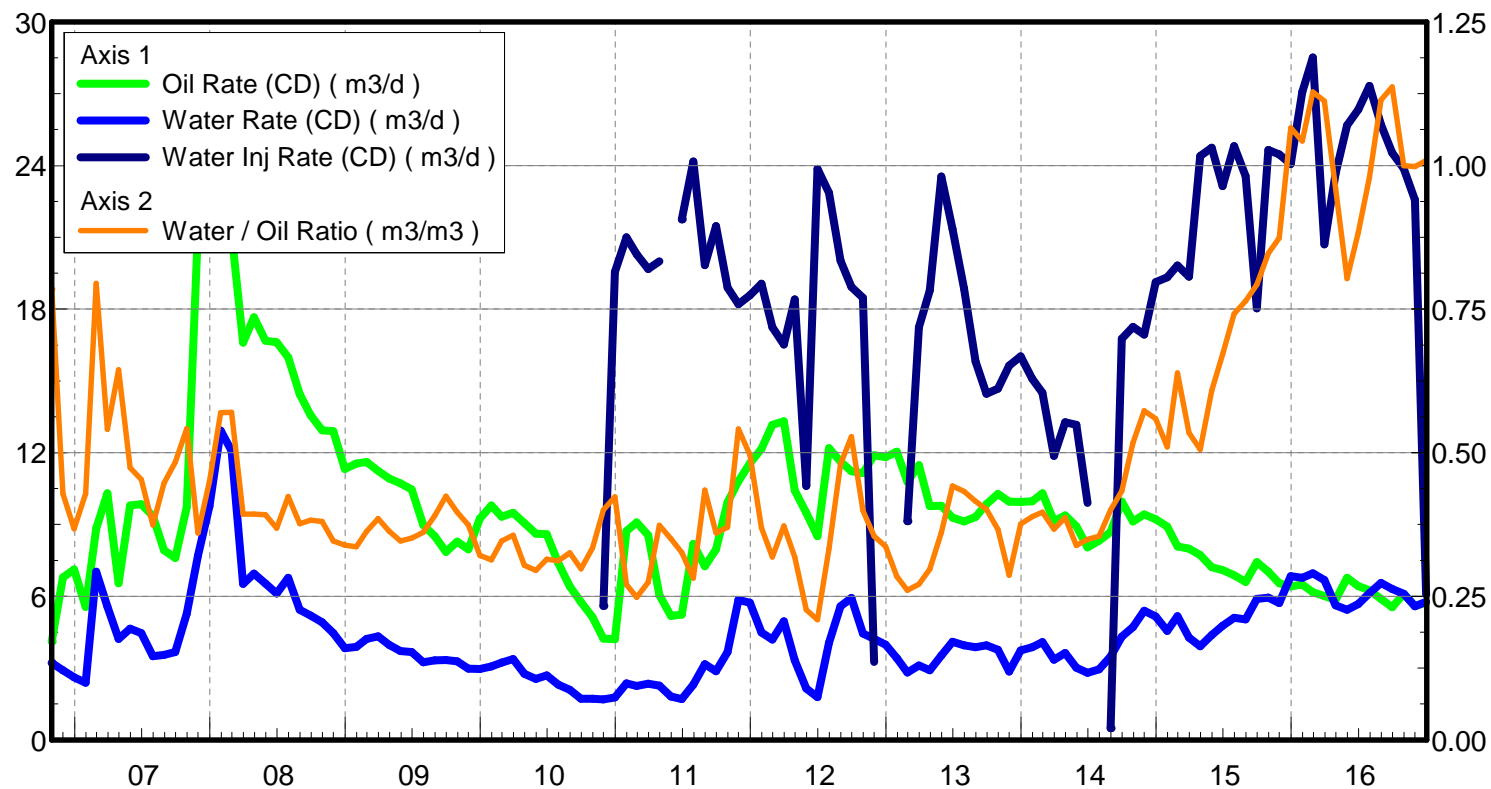
July 27, 2017

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 5.83 m3/d

Water Rate (CD) : 5.57 m3/d

Water Inj Rate (CD) : 20.93 m3/d



Pattern: 02/12-25-007-29Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.52 m3/m3

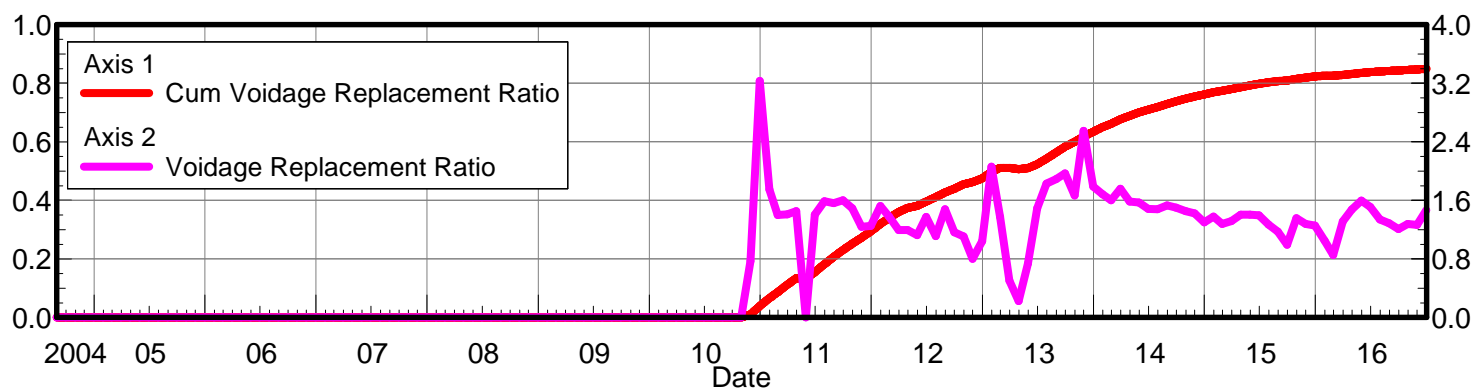
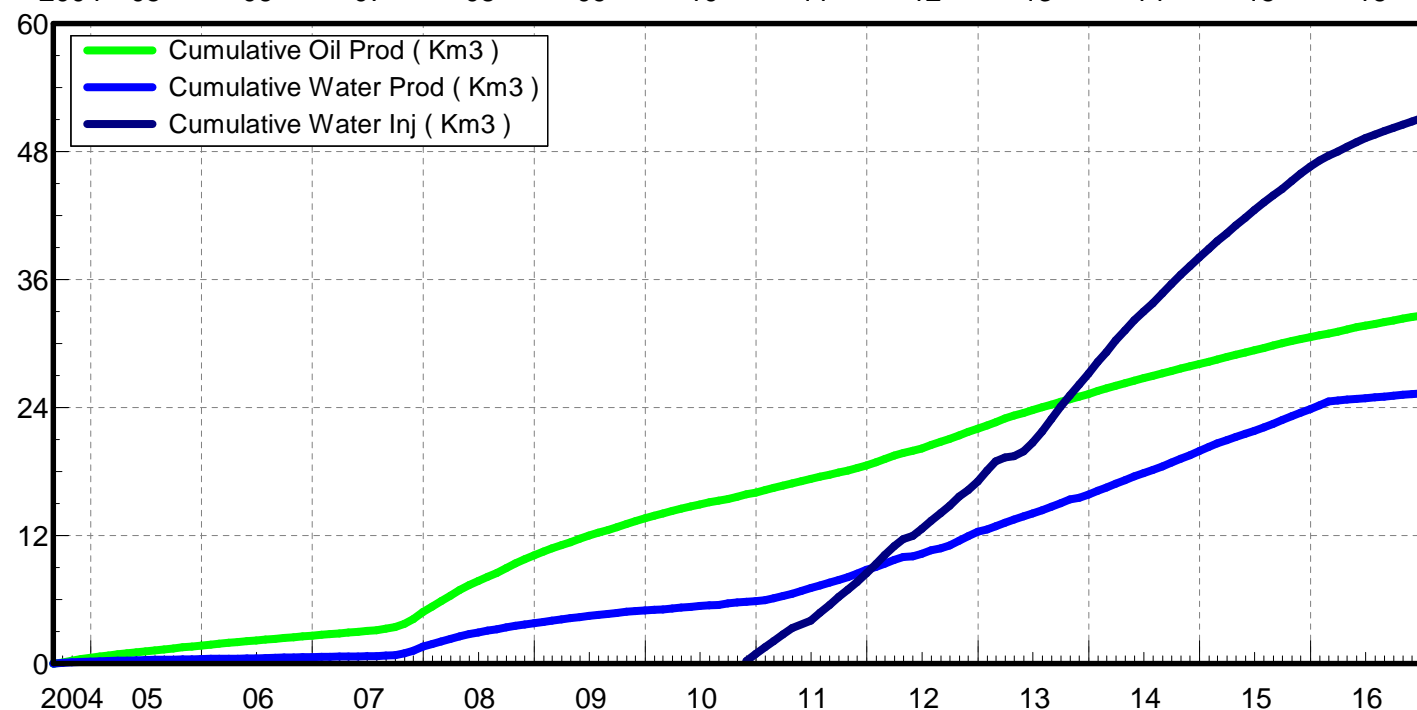
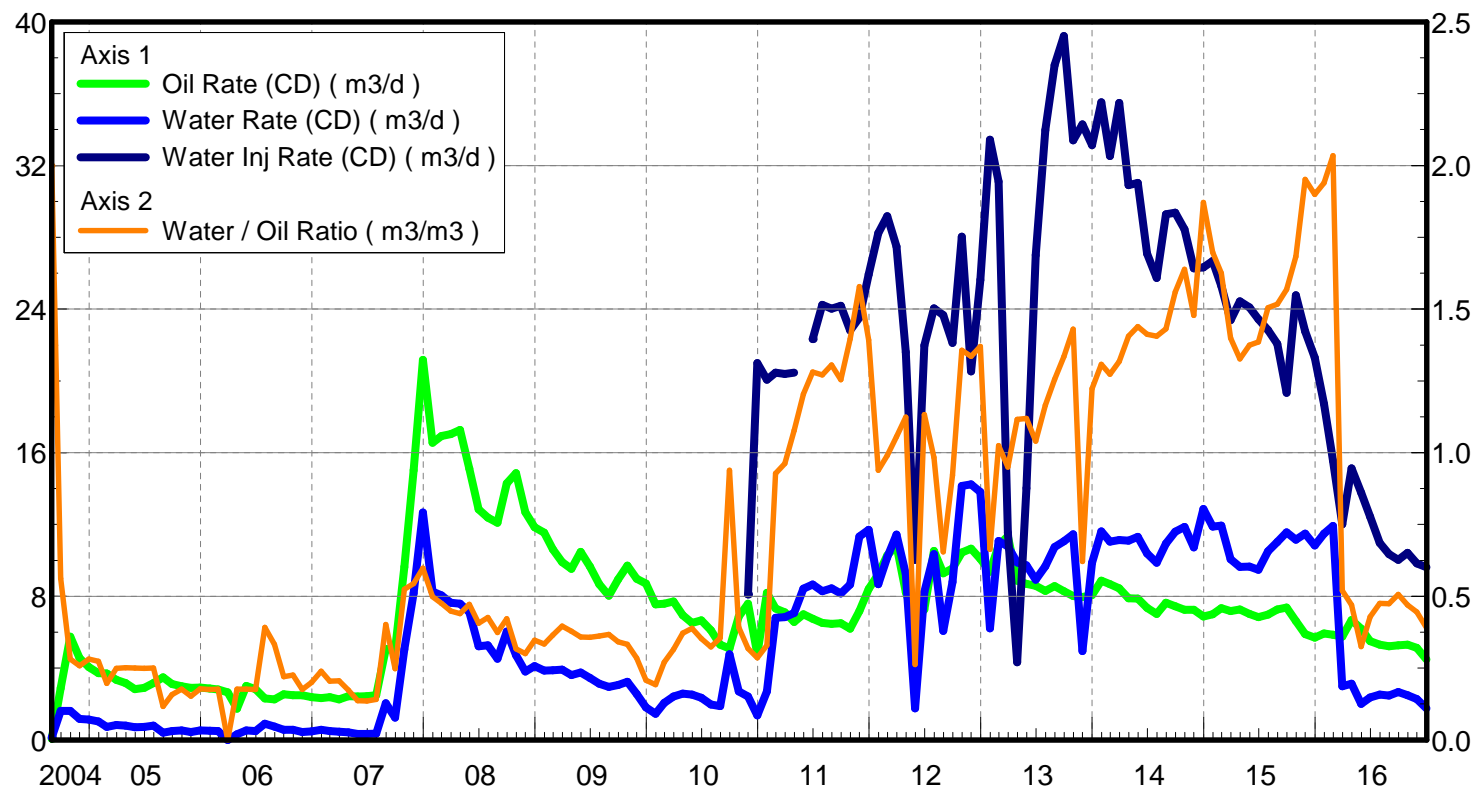
Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 5.07 m3/d

Water Rate (CD) : 1.85 m3/d

Water Inj Rate (CD) : 9.67 m3/d

July 27, 2017



Pattern: 03/12-25-007-29Inj Set: Unit#2

Oil Formation Vol Factor : 1.07100 m3/m3

Water Formation Vol Factor : 1.00150 m3/m3

Water / Oil Ratio : 0.68 m3/m3

July 27, 2017

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 4.98 m3/d

Water Rate (CD) : 3.46 m3/d

Water Inj Rate (CD) : 8.83 m3/d

