

**NORTH PIERSON UNIT NO. 1
WATERFLOOD EOR PROJECT

ANNUAL REPORT FOR 2014**

June 1, 2015

Tundra Oil and Gas Partnership

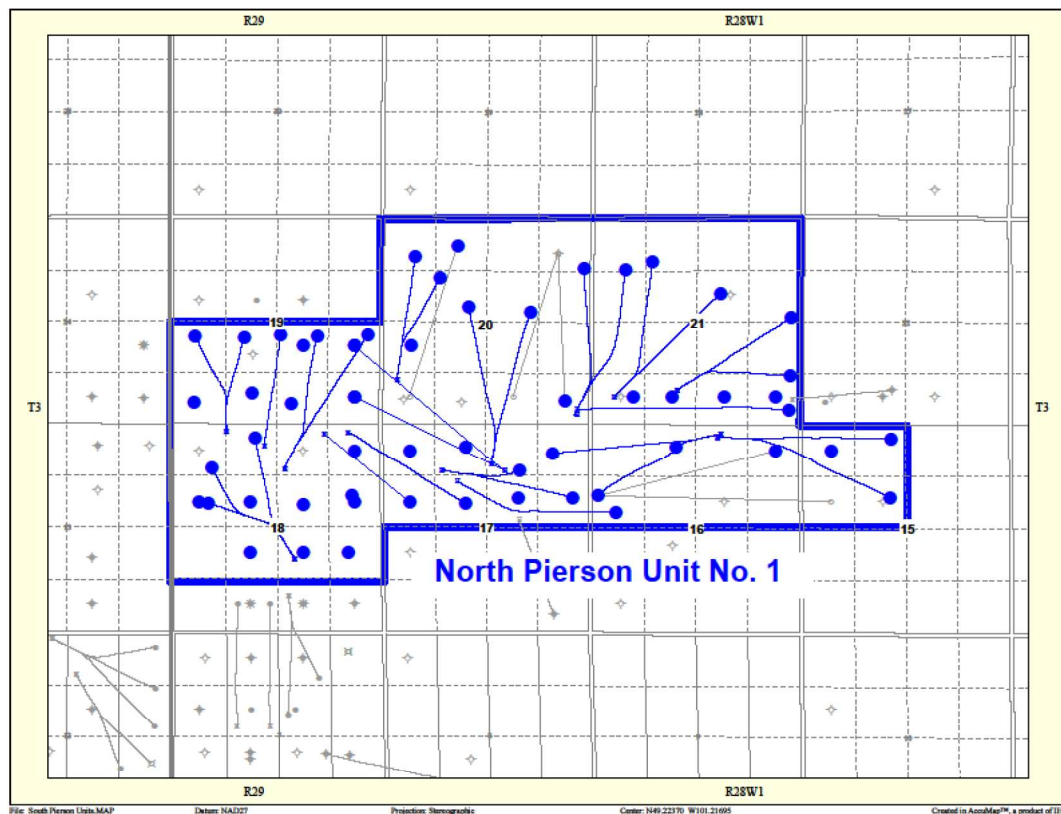
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INTRODUCTION

North Pierson Unit No. 1 Enhanced Oil Recovery (EOR) Waterflood Project was approved under Waterflood Order No. 31, effective January 1st, 2014 with Tundra Oil and Gas as Operator. The EOR project area, outlined in blue in Figure 1, contains 1 deviated, 27 vertical and 30 horizontal wells in 72 LSDs in Township 3, Range 28W1. Well list and well status is available in Appendix A.

Figure 1: North Pierson Unit No. 1 Area Outline



In accordance with Section 73 of the Manitoba Drilling and Production Regulation, Tundra submits the following 2014 Annual Progress Report for North Pierson Unit No. 1 as required by Waterflood Order No. 31.

DISCUSSION

Production History

For the wells included in North Pierson Unit No. 1, production started in November 1965 with the 00/13-17-003-28W1/00 well. Oil production peaked at 74.7 m³/d in March of

2007. In 2014, the average production for the unit was 20.40 m³/d of oil and 78.48 m³/d of water, and the average WOR was 4.16 m³/m³. Water injection commenced in North Pierson Unit No. 1 in February 2014. The rates and WOR are presented in Figure 2.

Figure 2: North Pierson Unit No. 1 Production/Injection Rates and WOR vs. Time

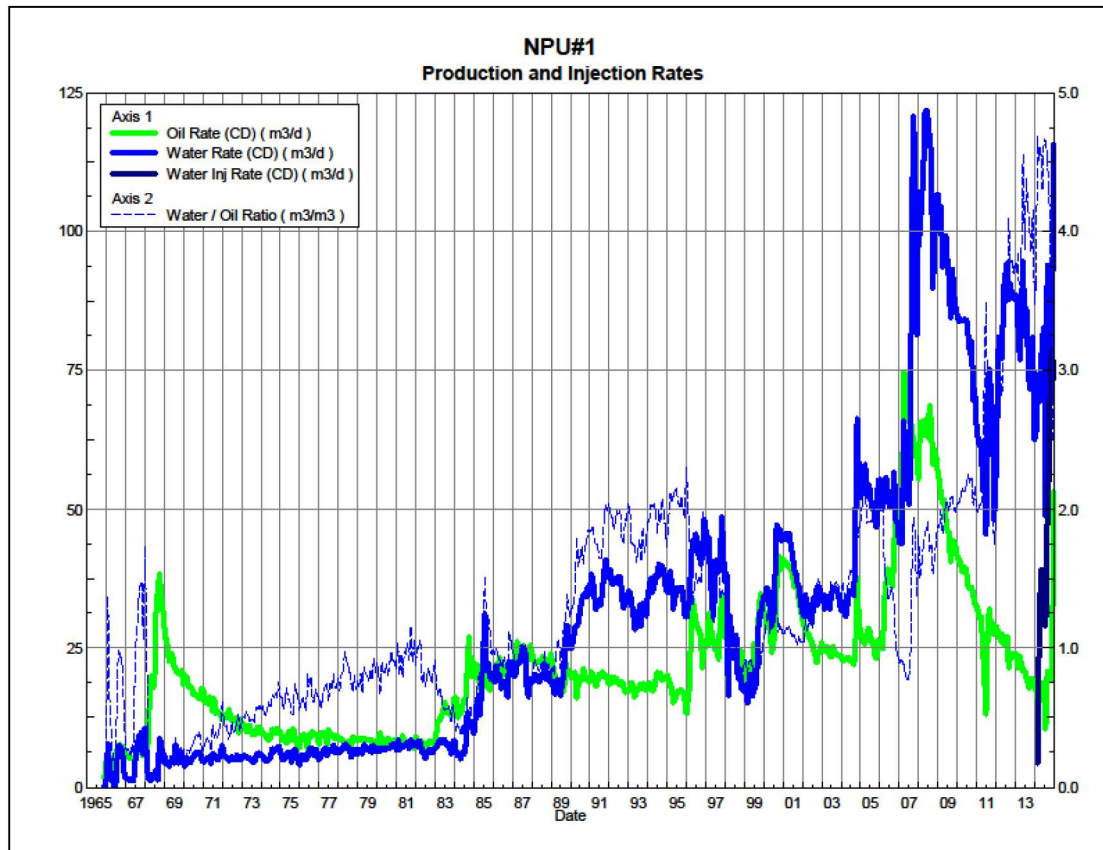
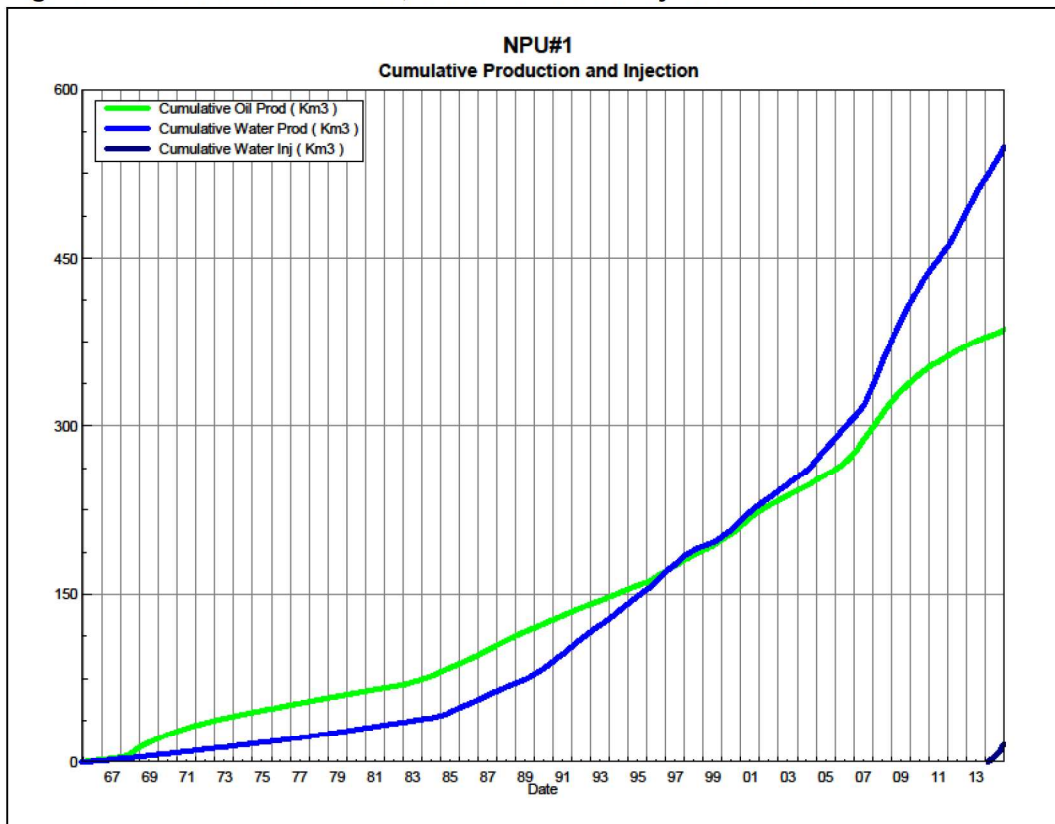


Figure 3 shows the cumulative production for North Pierson Unit No. 1 to the end of December 2014 as 384.9 e³m³ of oil and 548.0 e³m³ of water, representing an 18.3% recovery factor of the OOIP. The cumulative water injected is 15.6 e³m³.

Figure 3: NPU1 Cumulative Oil, Water and Water Injected vs. Time



Waterflood History

North Pierson Unit No. 1 is still in the development phase at the end of 2014. In January 2014, the 00/11-17 and 02/07-19-003-38W1 producers were converted to injectors.

Production performance by injector pattern is summarized in Appendix B.

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

Injection water for the proposed North Pierson Unit No. 1 is supplied from the Mannville formation in the 100/03-18-03-28W1 (00/03-18) well. Mannville water is pumped from the 100/03-18 source well to the Pierson 01-18-03-28W1 battery, where it is filtered and then pumped up to injection system pressure.

Injection Wellhead Pressures

Injection started in this Unit in February 2014. The average monthly wellhead injection pressure for each injector is summarized in Appendix C. Since injection in this Unit is still in the early stages, the injectors are still building up to a target injection pressure of 6300 kPaa.

Reservoir Pressure

It is estimated the initial reservoir pressure of the Mission Canyon (Alida) was approximately 9.8 MPa based on early DST's collected from the initial vertical wells drilled within the proposed Unit boundary. Subsequent DST's run with additional drilling indicates pressure depletion over time with fluid withdrawal.

Although in general there is not much pressure information available in the recent history of the pool, static and fall-off pressures were collected on three horizontal wells drilled from 2007 to 2008 (attached). The wells are (15-18) Hz 8-19-3-28W1, (4-20) Hz 13-20-3-28W1, and (15-16) Hz 14-15-3-28W1. As can be seen from the fall-offs, pressures were still significantly declining at the time the recorders were pulled, indicating the amount of time was not sufficient to accurately extrapolate for an initial pressure.

Where practical, Tundra is committed to collecting pressure data from newly drilled injection wells. For North Pierson Unit No. 1, pressure data taken in 2014 from the 02/01-19 and 03/01-21-003-28W1 locations is currently available (attached). The reservoir pressures are 5741 and 2348 kPa(a), respectively.

Well Servicing

No maintenance was required on the 58 wells in North Pierson Unit No. 1 in 2014.

Waterflood Performance Discussion

At the end of 2014, North Pierson Unit No. 1 waterflood area had 2 injection patterns in place. Since water injection started in February 2014, there is no waterflood analysis that can be done at this time.

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

List of Appendices

Appendix A: Well List and Well Status

Appendix B: North Pierson Unit No. 1 Injection Pattern Summary

Appendix C: Average Monthly Injection Pressures

Appendix D: Injector Pattern Production/Injection Rates, Cumulative and VRR

Plot and Table for the following injectors:

00/11-17-003-28W1/0

02/07-19-003-28W1/0

APPENDIX A

<i>UWI</i>	<i>Surface Location</i>	<i>Type</i>	<i>Well Status</i>
102/11-15-003-28W1/2	100/15-16-003-28W1/2	Horizontal	Capable of OIL Prod
100/13-15-003-28W1/0		Vertical	Capable of OIL Prod
100/14-15-003-28W1/0	100/15-16-003-28W1/0	Horizontal	Capable of OIL Prod
100/12-16-003-28W1/0	100/11-17-003-28W1/0	Horizontal	Capable of OIL Prod
102/12-16-003-28W1/0	102/15-16-003-28W1/2	Horizontal	Capable of OIL Prod
100/14-16-003-28W1/0		Vertical	ABD Producer
100/16-16-003-28W1/0		Vertical	ABD Producer
100/09-17-003-28W1/2	100/14-17-003-28W1/0	Horizontal	Capable of OIL Prod
100/10-17-003-28W1/0		Vertical	Capable of OIL Prod
100/11-17-003-28W1/0	100/16-18-003-28W1/0	Horizontal	WTR Injection
100/12-17-003-28W1/0	100/15-18-003-28W1/0	Horizontal	Completing
100/13-17-003-28W1/0		Vertical	Capable of OIL Prod
100/14-17-003-28W1/0		Vertical	ABD Producer
100/15-17-003-28W1/0	100/14-17-003-28W1/0	Horizontal	Capable of OIL Prod
100/16-17-003-28W1/2	100/15-16-003-28W1/0	Horizontal	Capable of OIL Prod
100/06-18-003-28W1/0		Vertical	Capable of OIL Prod
100/07-18-003-28W1/0		Vertical	ABD Producer
100/08-18-003-28W1/0		Vertical	ABD Producer
100/09-18-003-28W1/0		Vertical	ABD Producer
102/09-18-003-28W1/0		Vertical	ABD Producer
100/10-18-003-28W1/0		Vertical	Capable of OIL Prod
100/11-18-003-28W1/0		Vertical	Capable of OIL Prod
100/12-18-003-28W1/0		Vertical	ABD Producer
102/12-18-003-28W1/2	100/07-18-003-28W1/0	Horizontal	Capable of OIL Prod
102/13-18-003-28W1/3	100/07-18-003-28W1/0	Horizontal	Capable of OIL Prod
100/14-18-003-28W1/0	100/07-18-003-28W1/0	Horizontal	Capable of OIL Prod
100/16-18-003-28W1/0		Vertical	ABD Producer
100/01-19-003-28W1/0	100/01-19-003-28W1/0	Dir/Dev	ABD Producer
102/01-19-003-28W1/0	102/15-17-003-28W1/0	Horizontal	Completing
100/02-19-003-28W1/0		Vertical	Capable of OIL Prod
100/03-19-003-28W1/0		Vertical	Capable of OIL Prod
100/04-19-003-28W1/0		Vertical	Capable of OIL Prod
102/05-19-003-28W1/0	100/14-18-003-28W1/0	Horizontal	Capable of OIL Prod
100/06-19-003-28W1/2	100/14-18-003-28W1/0	Horizontal	Capable of OIL Prod
100/07-19-003-28W1/0		Vertical	ABD Producer
102/07-19-003-28W1/0	100/14-18-003-28W1/0	Horizontal	WTR Injection
102/07-19-003-28W1/2	100/15-18-003-28W1/0	Horizontal	Capable of OIL Prod
100/08-19-003-28W1/0		Vertical	ABD Producer
102/08-19-003-28W1/0	100/15-18-003-28W1/0	Horizontal	Capable of OIL Prod
103/08-19-003-28W1/2	103/15-17-003-28W1/2	Horizontal	Completing
100/01-20-003-28W1/2		Vertical	ABD Producer
100/05-20-003-28W1/0		Vertical	Capable of OIL Prod
100/07-20-003-28W1/2	100/15-17-003-28W1/0	Horizontal	Capable of OIL Prod
100/11-20-003-28W1/0	100/15-17-003-28W1/0	Horizontal	Capable of OIL Prod
102/11-20-003-28W1/2	100/04-20-003-28W1/0	Horizontal	Capable of OIL Prod
100/13-20-003-28W1/0	100/04-20-003-28W1/0	Horizontal	Capable of OIL Prod
100/14-20-003-28W1/0		Vertical	Waiting On Service Rig
100/16-20-003-28W1/2	100/01-20-003-28W1/2	Horizontal	Capable of OIL Prod
100/01-21-003-28W1/0		Vertical	Capable of OIL Prod
102/01-21-003-28W1/0	100/03-21-003-28W1/0	Horizontal	Capable of OIL Prod
103/01-21-003-28W1/0	103/01-20-003-28W1/0	Horizontal	Completing
100/02-21-003-28W1/0		Vertical	ABD Producer
100/03-21-003-28W1/0		Vertical	Capable of OIL Prod
102/04-21-003-28W1/0		Vertical	ABD Producer
100/09-21-003-28W1/2	100/03-21-003-28W1/2	Horizontal	Capable of OIL Prod
102/10-21-003-28W1/0	100/04-21-003-28W1/0	Horizontal	Capable of OIL Prod
100/12-21-003-28W1/0	100/01-20-003-28W1/0	Horizontal	Capable of OIL Prod
100/14-21-003-28W1/2	100/04-21-003-28W1/0	Horizontal	Capable of OIL Prod

Appendix B

North Pierson Unit No. 1 Pattern Summary as of December 2014

Pattern Name	Injector Location (003-28W1)	Status	No. of Supporte d Wells	Supported Wells (003-28W1)	Allocation Factor	Pattern Prod Start Month	Inj Start Month	Oil Rate (m ³ /d)	Water Rate (m ³ /d)	WOR (m ³ /m ³)	Water Injection (m ³ /d)	Cum Oil (E-m ³)	Cum Water (E-m ³)	Cum Inj Water (E-m ³)	Monthly VRR	Cum VRR
00/11-17-003-28 Injector	00/16-18	WTR Injection	7	00/09-18 00/12-16, 00/10-17, 00/15-17 02/01-19 00/13-17, 00/16-18	0.0 0.2 0.5 0.8	Nov 1965	Feb 2014	3.03	5.10	1.69	35.0	79.1	81.3	7.6	5.3	0.06
02/07-19-003-28 Injector	00/14-18	WTR Injection	8	00/08-19 02/05-19, 00/06-19/2, 02/07-19/2, 02/08-19 00/02-19, 00/03-19, 00/07-19	0.0 0.25 0.7	Feb 1968	Feb 2014	2.31	14.19	6.14	38.3	34.5	68.3	8.0	2.5	0.09

Appendix C

Average Monthly Injection Pressures (kPa) for North Pierson Unit No. 1

Month	Injection Pressure	
	100/11-17	102/07-19
Jan-14		
Feb-14	76	78
Mar-14	91	93
Apr-14	89	50
May-14	28	-3
Jun-14	0	-73
Jul-14	-6	-37
Aug-14	-53	-65
Sep-14	-88	-90
Oct-14	-89	745
Nov-14	-85	1981
Dec-14	-86	2000

Appendix D
Rates and VRR Plots

Oil Formation Vol Factor : 1.240000 Pattern: 11-17-003-28Inj Set: NPU#1

Water Formation Vol Factor : 1.000000 m3/m3

June 02, 2015

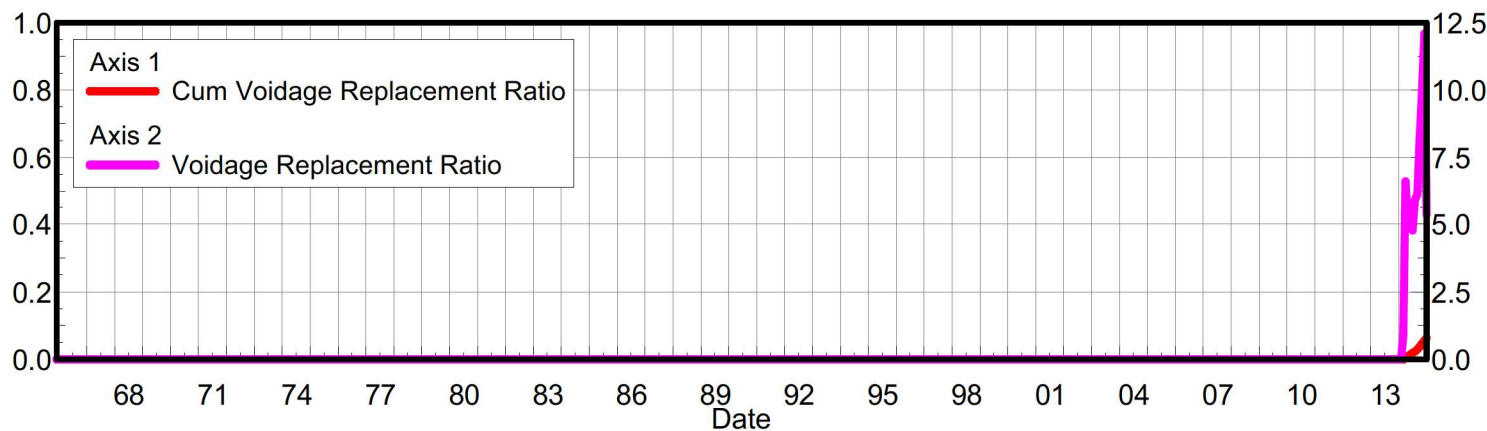
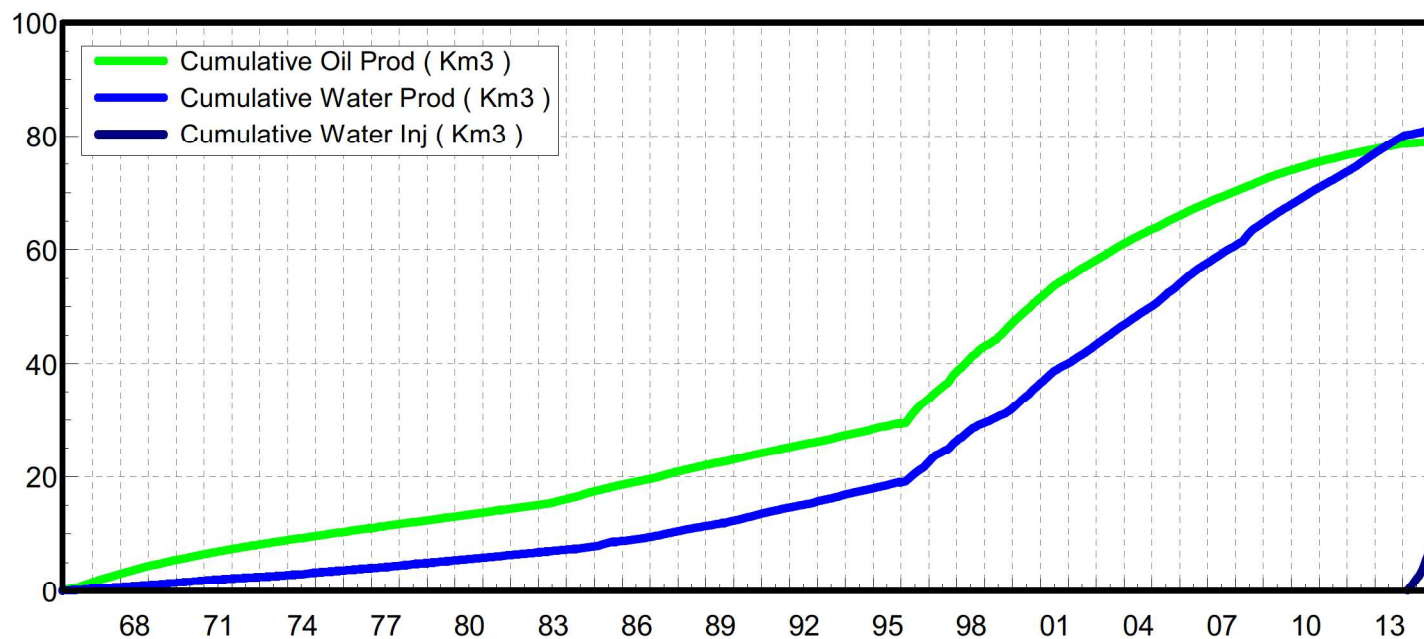
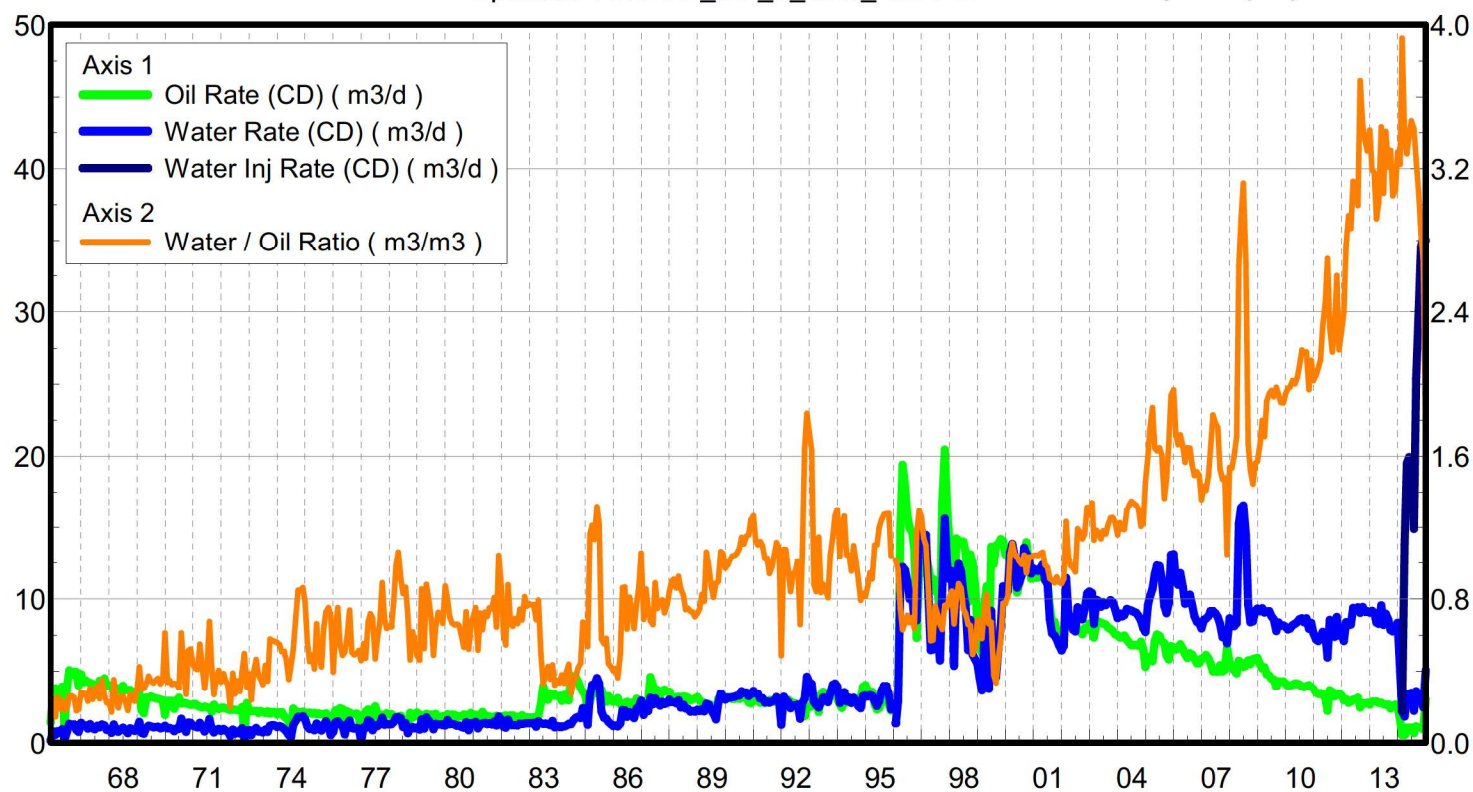
Water / Oil Ratio : 3.49 m3/m3

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 0.98 m3/d

Water Rate (CD) : 3.43 m3/d

Water Inj Rate (CD) : 45.00 m3/d



Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
11/30/1965	1.41	0.15	0.10		0.04	0.00	0.00	0.000	0.000
12/31/1965	3.42	0.80	0.23		0.15	0.03	0.00	0.000	0.000
1/31/1966	3.82	0.55	0.14		0.27	0.05	0.00	0.000	0.000
2/28/1966	3.15	0.80	0.25		0.36	0.07	0.00	0.000	0.000
3/31/1966	3.72	0.71	0.19		0.47	0.09	0.00	0.000	0.000
4/30/1966	3.94	0.92	0.23		0.59	0.12	0.00	0.000	0.000
5/31/1966	1.03	0.19	0.18		0.62	0.12	0.00	0.000	0.000
6/30/1966	3.95	0.76	0.19		0.74	0.15	0.00	0.000	0.000
7/31/1966	5.08	1.32	0.26		0.90	0.19	0.00	0.000	0.000
8/31/1966	4.78	1.25	0.26		1.04	0.23	0.00	0.000	0.000
9/30/1966	4.99	1.26	0.25		1.19	0.26	0.00	0.000	0.000
10/31/1966	4.96	0.88	0.18		1.35	0.29	0.00	0.000	0.000
11/30/1966	4.03	0.75	0.19		1.47	0.31	0.00	0.000	0.000
12/31/1966	4.80	1.36	0.28		1.62	0.36	0.00	0.000	0.000
1/31/1967	4.25	1.14	0.27		1.75	0.39	0.00	0.000	0.000
2/28/1967	4.39	1.20	0.27		1.87	0.43	0.00	0.000	0.000
3/31/1967	4.26	0.98	0.23		2.00	0.46	0.00	0.000	0.000
4/30/1967	4.20	1.29	0.31		2.13	0.49	0.00	0.000	0.000
5/31/1967	4.14	1.00	0.24		2.26	0.53	0.00	0.000	0.000
6/30/1967	3.30	0.94	0.28		2.36	0.55	0.00	0.000	0.000
7/31/1967	3.68	1.18	0.32		2.47	0.59	0.00	0.000	0.000
8/31/1967	4.35	1.07	0.24		2.61	0.62	0.00	0.000	0.000
9/30/1967	3.62	1.27	0.35		2.72	0.66	0.00	0.000	0.000
10/31/1967	4.51	1.19	0.26		2.86	0.70	0.00	0.000	0.000
11/30/1967	3.96	0.88	0.22		2.97	0.72	0.00	0.000	0.000
12/31/1967	4.05	0.92	0.23		3.10	0.75	0.00	0.000	0.000
1/31/1968	3.98	0.68	0.17		3.22	0.77	0.00	0.000	0.000
2/29/1968	3.57	1.26	0.35		3.33	0.81	0.00	0.000	0.000
3/31/1968	3.76	0.94	0.25		3.44	0.84	0.00	0.000	0.000
4/30/1968	3.83	0.74	0.19		3.56	0.86	0.00	0.000	0.000
5/31/1968	3.61	0.92	0.25		3.67	0.89	0.00	0.000	0.000
6/30/1968	4.01	1.04	0.26		3.79	0.92	0.00	0.000	0.000
7/31/1968	3.67	0.84	0.23		3.90	0.95	0.00	0.000	0.000
8/31/1968	3.68	0.66	0.18		4.02	0.97	0.00	0.000	0.000
9/30/1968	3.71	1.00	0.27		4.13	1.00	0.00	0.000	0.000
10/31/1968	3.59	0.93	0.26		4.24	1.03	0.00	0.000	0.000
11/30/1968	3.48	0.81	0.23		4.35	1.05	0.00	0.000	0.000
12/31/1968	3.29	1.00	0.30		4.45	1.08	0.00	0.000	0.000
1/31/1969	3.40	1.45	0.43		4.55	1.13	0.00	0.000	0.000
2/28/1969	2.25	0.67	0.30		4.62	1.15	0.00	0.000	0.000
3/31/1969	2.04	0.61	0.30		4.68	1.16	0.00	0.000	0.000
4/30/1969	3.14	1.05	0.33		4.77	1.20	0.00	0.000	0.000
5/31/1969	3.13	1.17	0.37		4.87	1.23	0.00	0.000	0.000
6/30/1969	3.23	1.12	0.35		4.97	1.27	0.00	0.000	0.000
7/31/1969	3.13	1.05	0.34		5.06	1.30	0.00	0.000	0.000
8/31/1969	3.09	1.09	0.35		5.16	1.33	0.00	0.000	0.000
9/30/1969	3.07	1.11	0.36		5.25	1.37	0.00	0.000	0.000
10/31/1969	3.00	1.00	0.33		5.34	1.40	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
11/30/1969	2.96	1.04	0.35		5.43	1.43	0.00	0.000	0.000
12/31/1969	1.93	1.18	0.61		5.49	1.46	0.00	0.000	0.000
1/31/1970	2.91	0.99	0.34		5.58	1.49	0.00	0.000	0.000
2/28/1970	2.89	1.01	0.35		5.66	1.52	0.00	0.000	0.000
3/31/1970	2.89	0.94	0.33		5.75	1.55	0.00	0.000	0.000
4/30/1970	2.36	0.78	0.33		5.83	1.58	0.00	0.000	0.000
5/31/1970	2.98	0.97	0.33		5.92	1.61	0.00	0.000	0.000
6/30/1970	3.14	0.97	0.31		6.01	1.64	0.00	0.000	0.000
7/31/1970	2.71	1.66	0.61		6.10	1.69	0.00	0.000	0.000
8/31/1970	2.78	1.17	0.42		6.18	1.72	0.00	0.000	0.000
9/30/1970	2.74	0.74	0.27		6.26	1.75	0.00	0.000	0.000
10/31/1970	2.69	1.39	0.51		6.35	1.79	0.00	0.000	0.000
11/30/1970	2.63	1.37	0.52		6.43	1.83	0.00	0.000	0.000
12/31/1970	2.66	1.16	0.44		6.51	1.87	0.00	0.000	0.000
1/31/1971	2.66	1.11	0.42		6.59	1.90	0.00	0.000	0.000
2/28/1971	2.57	1.06	0.41		6.66	1.93	0.00	0.000	0.000
3/31/1971	2.48	1.36	0.55		6.74	1.97	0.00	0.000	0.000
4/30/1971	2.43	1.01	0.42		6.81	2.00	0.00	0.000	0.000
5/31/1971	2.51	0.77	0.30		6.89	2.03	0.00	0.000	0.000
6/30/1971	2.46	1.02	0.41		6.97	2.06	0.00	0.000	0.000
7/31/1971	2.42	1.64	0.68		7.04	2.11	0.00	0.000	0.000
8/31/1971	2.16	0.92	0.43		7.11	2.14	0.00	0.000	0.000
9/30/1971	2.63	0.71	0.27		7.19	2.16	0.00	0.000	0.000
10/31/1971	2.43	0.91	0.37		7.26	2.19	0.00	0.000	0.000
11/30/1971	2.33	0.95	0.41		7.33	2.21	0.00	0.000	0.000
12/31/1971	2.39	0.82	0.34		7.41	2.24	0.00	0.000	0.000
1/31/1972	2.43	0.94	0.39		7.48	2.27	0.00	0.000	0.000
2/29/1972	2.38	0.83	0.35		7.55	2.29	0.00	0.000	0.000
3/31/1972	2.33	0.74	0.32		7.62	2.32	0.00	0.000	0.000
4/30/1972	2.27	0.45	0.20		7.69	2.33	0.00	0.000	0.000
5/31/1972	2.31	0.90	0.39		7.76	2.36	0.00	0.000	0.000
6/30/1972	2.29	0.62	0.27		7.83	2.38	0.00	0.000	0.000
7/31/1972	2.26	0.78	0.35		7.90	2.40	0.00	0.000	0.000
8/31/1972	2.21	0.63	0.29		7.97	2.42	0.00	0.000	0.000
9/30/1972	2.47	0.99	0.40		8.04	2.45	0.00	0.000	0.000
10/31/1972	0.55	0.28	0.50		8.06	2.46	0.00	0.000	0.000
11/30/1972	2.76	0.86	0.31		8.14	2.48	0.00	0.000	0.000
12/31/1972	2.22	0.86	0.39		8.21	2.51	0.00	0.000	0.000
1/31/1973	2.20	0.52	0.24		8.28	2.53	0.00	0.000	0.000
2/28/1973	2.20	0.87	0.39		8.34	2.55	0.00	0.000	0.000
3/31/1973	2.20	1.02	0.47		8.41	2.58	0.00	0.000	0.000
4/30/1973	2.06	0.78	0.38		8.47	2.61	0.00	0.000	0.000
5/31/1973	2.19	0.78	0.36		8.54	2.63	0.00	0.000	0.000
6/30/1973	2.13	0.70	0.33		8.60	2.65	0.00	0.000	0.000
7/31/1973	2.06	0.90	0.44		8.67	2.68	0.00	0.000	0.000
8/31/1973	2.18	0.76	0.35		8.74	2.70	0.00	0.000	0.000
9/30/1973	2.02	1.17	0.58		8.80	2.74	0.00	0.000	0.000
10/31/1973	2.13	1.21	0.57		8.86	2.77	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
11/30/1973	2.10	1.19	0.57		8.92	2.81	0.00	0.000	0.000
12/31/1973	1.95	1.09	0.56		8.99	2.84	0.00	0.000	0.000
1/31/1974	2.11	1.16	0.55		9.05	2.88	0.00	0.000	0.000
2/28/1974	2.12	1.08	0.51		9.11	2.91	0.00	0.000	0.000
3/31/1974	1.85	0.94	0.51		9.17	2.94	0.00	0.000	0.000
4/30/1974	1.68	0.78	0.47		9.22	2.96	0.00	0.000	0.000
5/31/1974	1.49	0.53	0.36		9.26	2.98	0.00	0.000	0.000
6/30/1974	0.87	0.38	0.44		9.29	2.99	0.00	0.000	0.000
7/31/1974	2.37	1.24	0.52		9.36	3.03	0.00	0.000	0.000
8/31/1974	2.17	1.53	0.70		9.43	3.08	0.00	0.000	0.000
9/30/1974	2.13	1.81	0.85		9.49	3.13	0.00	0.000	0.000
10/31/1974	2.09	1.77	0.85		9.56	3.19	0.00	0.000	0.000
11/30/1974	2.14	1.85	0.86		9.62	3.24	0.00	0.000	0.000
12/31/1974	2.09	1.63	0.78		9.69	3.29	0.00	0.000	0.000
1/31/1975	2.02	1.13	0.56		9.75	3.33	0.00	0.000	0.000
2/28/1975	2.08	0.95	0.46		9.81	3.35	0.00	0.000	0.000
3/31/1975	2.00	0.98	0.49		9.87	3.38	0.00	0.000	0.000
4/30/1975	2.06	0.85	0.41		9.93	3.41	0.00	0.000	0.000
5/31/1975	1.99	1.32	0.66		9.99	3.45	0.00	0.000	0.000
6/30/1975	1.99	0.94	0.47		10.05	3.48	0.00	0.000	0.000
7/31/1975	1.97	0.84	0.43		10.12	3.50	0.00	0.000	0.000
8/31/1975	1.95	1.24	0.64		10.18	3.54	0.00	0.000	0.000
9/30/1975	2.04	1.48	0.73		10.24	3.59	0.00	0.000	0.000
10/31/1975	1.52	1.14	0.75		10.28	3.62	0.00	0.000	0.000
11/30/1975	0.74	0.53	0.71		10.31	3.64	0.00	0.000	0.000
12/31/1975	1.91	0.76	0.40		10.37	3.66	0.00	0.000	0.000
1/31/1976	2.23	1.42	0.64		10.44	3.71	0.00	0.000	0.000
2/29/1976	1.99	1.49	0.75		10.49	3.75	0.00	0.000	0.000
3/31/1976	2.39	1.31	0.55		10.57	3.79	0.00	0.000	0.000
4/30/1976	2.33	1.14	0.49		10.64	3.82	0.00	0.000	0.000
5/31/1976	1.11	0.57	0.51		10.67	3.84	0.00	0.000	0.000
6/30/1976	2.17	1.27	0.59		10.74	3.88	0.00	0.000	0.000
7/31/1976	2.07	1.53	0.74		10.80	3.93	0.00	0.000	0.000
8/31/1976	2.00	1.01	0.51		10.86	3.96	0.00	0.000	0.000
9/30/1976	1.98	0.98	0.49		10.92	3.99	0.00	0.000	0.000
10/31/1976	2.02	1.01	0.50		10.98	4.02	0.00	0.000	0.000
11/30/1976	1.90	0.98	0.52		11.04	4.05	0.00	0.000	0.000
12/31/1976	0.17	0.08	0.46		11.05	4.05	0.00	0.000	0.000
1/31/1977	1.91	1.06	0.55		11.11	4.08	0.00	0.000	0.000
2/28/1977	2.16	1.02	0.47		11.17	4.11	0.00	0.000	0.000
3/31/1977	2.31	1.56	0.67		11.24	4.16	0.00	0.000	0.000
4/30/1977	2.05	1.47	0.72		11.30	4.20	0.00	0.000	0.000
5/31/1977	1.25	0.86	0.69		11.34	4.23	0.00	0.000	0.000
6/30/1977	2.53	1.19	0.47		11.41	4.27	0.00	0.000	0.000
7/31/1977	1.98	1.16	0.58		11.48	4.30	0.00	0.000	0.000
8/31/1977	1.93	1.27	0.66		11.54	4.34	0.00	0.000	0.000
9/30/1977	1.93	1.72	0.89		11.59	4.39	0.00	0.000	0.000
10/31/1977	1.81	1.25	0.69		11.65	4.43	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
11/30/1977	2.03	1.30	0.64		11.71	4.47	0.00	0.000	0.000
12/31/1977	1.94	1.26	0.65		11.77	4.51	0.00	0.000	0.000
1/31/1978	1.97	1.27	0.65		11.83	4.55	0.00	0.000	0.000
2/28/1978	1.83	1.45	0.79		11.88	4.59	0.00	0.000	0.000
3/31/1978	1.79	1.75	0.98		11.94	4.64	0.00	0.000	0.000
4/30/1978	1.68	1.78	1.06		11.99	4.70	0.00	0.000	0.000
5/31/1978	1.86	1.69	0.91		12.05	4.75	0.00	0.000	0.000
6/30/1978	1.31	1.09	0.83		12.09	4.78	0.00	0.000	0.000
7/31/1978	1.57	1.36	0.86		12.13	4.83	0.00	0.000	0.000
8/31/1978	0.94	0.67	0.71		12.16	4.85	0.00	0.000	0.000
9/30/1978	2.06	0.96	0.46		12.23	4.87	0.00	0.000	0.000
10/31/1978	1.76	1.09	0.62		12.28	4.91	0.00	0.000	0.000
11/30/1978	1.81	1.01	0.56		12.33	4.94	0.00	0.000	0.000
12/31/1978	2.09	1.02	0.49		12.40	4.97	0.00	0.000	0.000
1/31/1979	1.94	0.90	0.46		12.46	5.00	0.00	0.000	0.000
2/28/1979	1.90	1.62	0.86		12.51	5.04	0.00	0.000	0.000
3/31/1979	1.86	0.98	0.53		12.57	5.07	0.00	0.000	0.000
4/30/1979	1.99	1.75	0.88		12.63	5.13	0.00	0.000	0.000
5/31/1979	1.90	1.52	0.80		12.69	5.17	0.00	0.000	0.000
6/30/1979	1.96	1.35	0.69		12.75	5.21	0.00	0.000	0.000
7/31/1979	1.90	0.93	0.49		12.81	5.24	0.00	0.000	0.000
8/31/1979	2.00	1.30	0.65		12.87	5.28	0.00	0.000	0.000
9/30/1979	1.74	1.26	0.73		12.92	5.32	0.00	0.000	0.000
10/31/1979	1.77	1.26	0.71		12.98	5.36	0.00	0.000	0.000
11/30/1979	1.83	1.22	0.67		13.03	5.40	0.00	0.000	0.000
12/31/1979	1.37	1.19	0.87		13.07	5.43	0.00	0.000	0.000
1/31/1980	1.97	1.57	0.80		13.13	5.48	0.00	0.000	0.000
2/29/1980	1.84	1.29	0.70		13.19	5.52	0.00	0.000	0.000
3/31/1980	1.96	1.31	0.67		13.25	5.56	0.00	0.000	0.000
4/30/1980	1.92	1.26	0.66		13.31	5.60	0.00	0.000	0.000
5/31/1980	1.78	1.18	0.66		13.36	5.63	0.00	0.000	0.000
6/30/1980	1.84	1.20	0.65		13.42	5.67	0.00	0.000	0.000
7/31/1980	1.82	1.08	0.59		13.47	5.70	0.00	0.000	0.000
8/31/1980	1.96	1.05	0.53		13.53	5.74	0.00	0.000	0.000
9/30/1980	1.94	1.41	0.73		13.59	5.78	0.00	0.000	0.000
10/31/1980	1.63	0.85	0.52		13.64	5.81	0.00	0.000	0.000
11/30/1980	2.07	1.34	0.65		13.70	5.85	0.00	0.000	0.000
12/31/1980	1.90	1.33	0.70		13.76	5.89	0.00	0.000	0.000
1/31/1981	1.92	1.44	0.75		13.82	5.93	0.00	0.000	0.000
2/28/1981	1.89	0.98	0.52		13.88	5.96	0.00	0.000	0.000
3/31/1981	1.71	1.23	0.72		13.93	6.00	0.00	0.000	0.000
4/30/1981	2.13	1.34	0.63		13.99	6.04	0.00	0.000	0.000
5/31/1981	1.90	1.38	0.73		14.05	6.08	0.00	0.000	0.000
6/30/1981	1.83	1.29	0.70		14.11	6.12	0.00	0.000	0.000
7/31/1981	1.81	1.36	0.75		14.16	6.16	0.00	0.000	0.000
8/31/1981	1.70	1.27	0.75		14.22	6.20	0.00	0.000	0.000
9/30/1981	1.81	1.46	0.81		14.27	6.24	0.00	0.000	0.000
10/31/1981	1.86	1.20	0.65		14.33	6.28	0.00	0.000	0.000

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11/30/1981	1.73	1.81	1.04		14.38	6.34	0.00	0.000	0.000
12/31/1981	1.83	1.59	0.87		14.44	6.39	0.00	0.000	0.000
1/31/1982	1.83	1.11	0.61		14.49	6.42	0.00	0.000	0.000
2/28/1982	1.89	1.03	0.55		14.55	6.45	0.00	0.000	0.000
3/31/1982	1.81	1.59	0.88		14.60	6.50	0.00	0.000	0.000
4/30/1982	1.88	1.25	0.66		14.66	6.54	0.00	0.000	0.000
5/31/1982	1.88	1.22	0.65		14.72	6.57	0.00	0.000	0.000
6/30/1982	1.75	1.21	0.69		14.77	6.61	0.00	0.000	0.000
7/31/1982	1.80	1.19	0.66		14.82	6.65	0.00	0.000	0.000
8/31/1982	1.75	1.30	0.74		14.88	6.69	0.00	0.000	0.000
9/30/1982	1.90	1.30	0.68		14.94	6.73	0.00	0.000	0.000
10/31/1982	1.64	1.33	0.81		14.99	6.77	0.00	0.000	0.000
11/30/1982	1.78	1.35	0.76		15.04	6.81	0.00	0.000	0.000
12/31/1982	1.75	1.35	0.77		15.09	6.85	0.00	0.000	0.000
1/31/1983	1.75	1.34	0.77		15.15	6.89	0.00	0.000	0.000
2/28/1983	1.78	1.37	0.77		15.20	6.93	0.00	0.000	0.000
3/31/1983	1.61	1.10	0.68		15.25	6.96	0.00	0.000	0.000
4/30/1983	1.87	1.49	0.79		15.30	7.01	0.00	0.000	0.000
5/31/1983	2.73	1.35	0.49		15.39	7.05	0.00	0.000	0.000
6/30/1983	3.98	1.31	0.33		15.51	7.09	0.00	0.000	0.000
7/31/1983	3.50	1.33	0.38		15.62	7.13	0.00	0.000	0.000
8/31/1983	2.99	1.27	0.43		15.71	7.17	0.00	0.000	0.000
9/30/1983	3.43	1.23	0.36		15.81	7.21	0.00	0.000	0.000
10/31/1983	3.46	1.51	0.44		15.92	7.25	0.00	0.000	0.000
11/30/1983	3.29	1.06	0.32		16.02	7.29	0.00	0.000	0.000
12/31/1983	3.25	1.14	0.35		16.12	7.32	0.00	0.000	0.000
1/31/1984	3.26	1.10	0.34		16.22	7.36	0.00	0.000	0.000
2/29/1984	2.91	1.11	0.38		16.31	7.39	0.00	0.000	0.000
3/31/1984	3.34	1.12	0.33		16.41	7.42	0.00	0.000	0.000
4/30/1984	2.97	1.19	0.40		16.50	7.46	0.00	0.000	0.000
5/31/1984	2.97	1.31	0.44		16.59	7.50	0.00	0.000	0.000
6/30/1984	4.70	1.29	0.27		16.73	7.54	0.00	0.000	0.000
7/31/1984	4.58	1.57	0.34		16.87	7.59	0.00	0.000	0.000
8/31/1984	4.60	1.72	0.37		17.02	7.64	0.00	0.000	0.000
9/30/1984	4.29	1.80	0.42		17.14	7.69	0.00	0.000	0.000
10/31/1984	3.83	1.71	0.45		17.26	7.75	0.00	0.000	0.000
11/30/1984	3.57	2.40	0.67		17.37	7.82	0.00	0.000	0.000
12/31/1984	3.27	2.12	0.65		17.47	7.88	0.00	0.000	0.000
1/31/1985	2.31	1.24	0.54		17.54	7.92	0.00	0.000	0.000
2/28/1985	2.85	3.31	1.16		17.62	8.01	0.00	0.000	0.000
3/31/1985	3.37	4.08	1.21		17.73	8.14	0.00	0.000	0.000
4/30/1985	3.58	4.05	1.13		17.83	8.26	0.00	0.000	0.000
5/31/1985	3.45	4.54	1.32		17.94	8.40	0.00	0.000	0.000
6/30/1985	3.43	4.17	1.21		18.04	8.53	0.00	0.000	0.000
7/31/1985	3.73	2.16	0.58		18.16	8.59	0.00	0.000	0.000
8/31/1985	3.11	1.72	0.55		18.26	8.65	0.00	0.000	0.000
9/30/1985	2.85	1.66	0.58		18.34	8.70	0.00	0.000	0.000
10/31/1985	3.23	1.43	0.44		18.44	8.74	0.00	0.000	0.000

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11/30/1985	3.02	1.29	0.43		18.53	8.78	0.00	0.000	0.000
12/31/1985	2.85	1.15	0.40		18.62	8.82	0.00	0.000	0.000
1/31/1986	2.89	1.20	0.42		18.71	8.85	0.00	0.000	0.000
2/28/1986	3.11	1.13	0.36		18.80	8.89	0.00	0.000	0.000
3/31/1986	2.67	1.32	0.49		18.88	8.93	0.00	0.000	0.000
4/30/1986	2.63	2.27	0.86		18.96	8.99	0.00	0.000	0.000
5/31/1986	2.58	2.24	0.87		19.04	9.06	0.00	0.000	0.000
6/30/1986	2.84	1.80	0.63		19.12	9.12	0.00	0.000	0.000
7/31/1986	2.60	2.10	0.81		19.21	9.18	0.00	0.000	0.000
8/31/1986	2.77	2.02	0.73		19.29	9.25	0.00	0.000	0.000
9/30/1986	2.66	1.70	0.64		19.37	9.30	0.00	0.000	0.000
10/31/1986	3.07	2.37	0.77		19.47	9.37	0.00	0.000	0.000
11/30/1986	2.86	2.49	0.87		19.55	9.44	0.00	0.000	0.000
12/31/1986	2.78	2.93	1.05		19.64	9.54	0.00	0.000	0.000
1/31/1987	2.80	1.93	0.69		19.72	9.60	0.00	0.000	0.000
2/28/1987	2.81	2.40	0.85		19.80	9.66	0.00	0.000	0.000
3/31/1987	2.92	2.19	0.75		19.89	9.73	0.00	0.000	0.000
4/30/1987	4.61	3.13	0.68		20.03	9.82	0.00	0.000	0.000
5/31/1987	4.03	2.66	0.66		20.16	9.91	0.00	0.000	0.000
6/30/1987	3.48	3.09	0.89		20.26	10.00	0.00	0.000	0.000
7/31/1987	3.71	2.77	0.75		20.38	10.08	0.00	0.000	0.000
8/31/1987	3.28	2.57	0.78		20.48	10.16	0.00	0.000	0.000
9/30/1987	3.59	2.85	0.79		20.59	10.25	0.00	0.000	0.000
10/31/1987	3.73	2.70	0.72		20.70	10.33	0.00	0.000	0.000
11/30/1987	3.59	2.75	0.77		20.81	10.42	0.00	0.000	0.000
12/31/1987	3.57	2.99	0.84		20.92	10.51	0.00	0.000	0.000
1/31/1988	3.14	2.82	0.90		21.02	10.60	0.00	0.000	0.000
2/29/1988	3.10	2.82	0.91		21.11	10.68	0.00	0.000	0.000
3/31/1988	3.18	2.73	0.86		21.21	10.76	0.00	0.000	0.000
4/30/1988	3.19	2.95	0.92		21.30	10.85	0.00	0.000	0.000
5/31/1988	2.86	2.45	0.86		21.39	10.93	0.00	0.000	0.000
6/30/1988	3.22	2.64	0.82		21.49	11.01	0.00	0.000	0.000
7/31/1988	3.21	2.38	0.74		21.59	11.08	0.00	0.000	0.000
8/31/1988	3.13	2.35	0.75		21.68	11.15	0.00	0.000	0.000
9/30/1988	2.93	2.15	0.73		21.77	11.22	0.00	0.000	0.000
10/31/1988	3.02	2.19	0.73		21.86	11.29	0.00	0.000	0.000
11/30/1988	3.07	2.15	0.70		21.96	11.35	0.00	0.000	0.000
12/31/1988	3.18	2.29	0.72		22.06	11.42	0.00	0.000	0.000
1/31/1989	2.95	2.20	0.75		22.15	11.49	0.00	0.000	0.000
2/28/1989	2.81	2.31	0.82		22.23	11.55	0.00	0.000	0.000
3/31/1989	2.77	2.18	0.79		22.31	11.62	0.00	0.000	0.000
4/30/1989	2.56	2.71	1.06		22.39	11.70	0.00	0.000	0.000
5/31/1989	2.70	2.62	0.97		22.47	11.78	0.00	0.000	0.000
6/30/1989	2.61	2.27	0.87		22.55	11.85	0.00	0.000	0.000
7/31/1989	2.51	2.03	0.81		22.63	11.92	0.00	0.000	0.000
8/31/1989	1.82	1.62	0.89		22.68	11.97	0.00	0.000	0.000
9/30/1989	3.05	2.73	0.90		22.78	12.05	0.00	0.000	0.000
10/31/1989	3.24	3.45	1.06		22.88	12.15	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
11/30/1989	3.06	3.22	1.05		22.97	12.25	0.00	0.000	0.000
12/31/1989	3.10	3.00	0.97		23.06	12.34	0.00	0.000	0.000
1/31/1990	3.18	3.14	0.99		23.16	12.44	0.00	0.000	0.000
2/28/1990	3.08	3.12	1.01		23.25	12.53	0.00	0.000	0.000
3/31/1990	3.07	3.19	1.04		23.34	12.63	0.00	0.000	0.000
4/30/1990	3.06	3.19	1.04		23.44	12.72	0.00	0.000	0.000
5/31/1990	3.10	3.27	1.05		23.53	12.82	0.00	0.000	0.000
6/30/1990	3.05	3.30	1.08		23.62	12.92	0.00	0.000	0.000
7/31/1990	3.17	3.62	1.14		23.72	13.04	0.00	0.000	0.000
8/31/1990	3.14	3.48	1.11		23.82	13.14	0.00	0.000	0.000
9/30/1990	3.07	3.53	1.15		23.91	13.25	0.00	0.000	0.000
10/31/1990	2.79	3.23	1.16		24.00	13.35	0.00	0.000	0.000
11/30/1990	2.73	3.38	1.24		24.08	13.45	0.00	0.000	0.000
12/31/1990	2.89	3.65	1.26		24.17	13.56	0.00	0.000	0.000
1/31/1991	3.08	3.46	1.12		24.26	13.67	0.00	0.000	0.000
2/28/1991	3.09	3.40	1.10		24.35	13.77	0.00	0.000	0.000
3/31/1991	2.77	3.10	1.12		24.44	13.86	0.00	0.000	0.000
4/30/1991	2.82	3.10	1.10		24.52	13.96	0.00	0.000	0.000
5/31/1991	2.73	2.80	1.02		24.61	14.04	0.00	0.000	0.000
6/30/1991	2.80	2.87	1.02		24.69	14.13	0.00	0.000	0.000
7/31/1991	2.95	2.77	0.94		24.78	14.21	0.00	0.000	0.000
8/31/1991	2.94	2.87	0.98		24.87	14.30	0.00	0.000	0.000
9/30/1991	2.83	2.95	1.04		24.96	14.39	0.00	0.000	0.000
10/31/1991	2.86	3.18	1.11		25.05	14.49	0.00	0.000	0.000
11/30/1991	2.66	2.87	1.08		25.13	14.58	0.00	0.000	0.000
12/31/1991	2.55	1.24	0.49		25.21	14.61	0.00	0.000	0.000
1/31/1992	2.97	3.20	1.08		25.30	14.71	0.00	0.000	0.000
2/29/1992	2.79	3.00	1.07		25.38	14.80	0.00	0.000	0.000
3/31/1992	2.97	2.83	0.95		25.47	14.89	0.00	0.000	0.000
4/30/1992	2.86	2.41	0.84		25.56	14.96	0.00	0.000	0.000
5/31/1992	2.75	2.58	0.94		25.64	15.04	0.00	0.000	0.000
6/30/1992	2.73	2.59	0.95		25.72	15.12	0.00	0.000	0.000
7/31/1992	2.61	2.64	1.01		25.80	15.20	0.00	0.000	0.000
8/31/1992	2.51	1.65	0.66		25.88	15.25	0.00	0.000	0.000
9/30/1992	2.58	2.78	1.08		25.96	15.34	0.00	0.000	0.000
10/31/1992	1.85	3.04	1.64		26.02	15.43	0.00	0.000	0.000
11/30/1992	2.51	4.62	1.84		26.09	15.57	0.00	0.000	0.000
12/31/1992	2.46	4.23	1.72		26.17	15.70	0.00	0.000	0.000
1/31/1993	2.53	4.13	1.63		26.25	15.83	0.00	0.000	0.000
2/28/1993	3.24	2.85	0.88		26.34	15.91	0.00	0.000	0.000
3/31/1993	3.13	2.63	0.84		26.44	15.99	0.00	0.000	0.000
4/30/1993	2.14	2.45	1.14		26.50	16.06	0.00	0.000	0.000
5/31/1993	3.32	2.78	0.84		26.60	16.15	0.00	0.000	0.000
6/30/1993	3.58	3.15	0.88		26.71	16.24	0.00	0.000	0.000
7/31/1993	3.45	2.92	0.85		26.82	16.33	0.00	0.000	0.000
8/31/1993	3.51	2.83	0.81		26.93	16.42	0.00	0.000	0.000
9/30/1993	3.30	3.44	1.04		27.02	16.52	0.00	0.000	0.000
10/31/1993	3.56	4.07	1.15		27.13	16.65	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
11/30/1993	3.30	4.17	1.26		27.23	16.78	0.00	0.000	0.000
12/31/1993	3.05	3.95	1.30		27.33	16.90	0.00	0.000	0.000
1/31/1994	2.66	2.75	1.04		27.41	16.98	0.00	0.000	0.000
2/28/1994	2.41	2.93	1.21		27.48	17.07	0.00	0.000	0.000
3/31/1994	2.82	3.55	1.26		27.57	17.18	0.00	0.000	0.000
4/30/1994	2.77	2.89	1.05		27.65	17.26	0.00	0.000	0.000
5/31/1994	3.00	3.13	1.04		27.74	17.36	0.00	0.000	0.000
6/30/1994	2.88	2.75	0.96		27.83	17.44	0.00	0.000	0.000
7/31/1994	2.86	3.13	1.09		27.92	17.54	0.00	0.000	0.000
8/31/1994	2.86	2.86	1.00		28.01	17.63	0.00	0.000	0.000
9/30/1994	2.79	2.53	0.90		28.09	17.70	0.00	0.000	0.000
10/31/1994	3.03	2.41	0.79		28.18	17.78	0.00	0.000	0.000
11/30/1994	3.91	3.25	0.83		28.30	17.88	0.00	0.000	0.000
12/31/1994	4.05	3.29	0.81		28.43	17.98	0.00	0.000	0.000
1/31/1995	3.70	3.21	0.87		28.54	18.08	0.00	0.000	0.000
2/28/1995	3.49	3.30	0.94		28.64	18.17	0.00	0.000	0.000
3/31/1995	3.58	3.26	0.91		28.75	18.27	0.00	0.000	0.000
4/30/1995	2.61	2.87	1.10		28.83	18.36	0.00	0.000	0.000
5/31/1995	2.31	2.55	1.10		28.90	18.44	0.00	0.000	0.000
6/30/1995	2.40	2.88	1.20		28.97	18.52	0.00	0.000	0.000
7/31/1995	2.96	3.69	1.24		29.06	18.64	0.00	0.000	0.000
8/31/1995	3.13	3.98	1.27		29.16	18.76	0.00	0.000	0.000
9/30/1995	3.12	3.97	1.27		29.25	18.88	0.00	0.000	0.000
10/31/1995	2.65	3.38	1.28		29.34	18.98	0.00	0.000	0.000
11/30/1995	2.22	2.31	1.04		29.40	19.05	0.00	0.000	0.000
1/31/1996	1.34	1.36	1.02		29.44	19.10	0.00	0.000	0.000
2/29/1996	3.02	2.90	0.96		29.53	19.18	0.00	0.000	0.000
3/31/1996	14.72	10.99	0.75		29.99	19.52	0.00	0.000	0.000
4/30/1996	19.37	12.21	0.63		30.57	19.89	0.00	0.000	0.000
5/31/1996	17.87	11.98	0.67		31.12	20.26	0.00	0.000	0.000
6/30/1996	15.78	11.17	0.71		31.60	20.59	0.00	0.000	0.000
7/31/1996	14.95	10.00	0.67		32.06	20.90	0.00	0.000	0.000
8/31/1996	14.68	10.22	0.70		32.51	21.22	0.00	0.000	0.000
9/30/1996	13.42	8.56	0.64		32.92	21.48	0.00	0.000	0.000
10/31/1996	7.33	8.54	1.17		33.14	21.74	0.00	0.000	0.000
11/30/1996	11.80	15.25	1.29		33.50	22.20	0.00	0.000	0.000
12/31/1996	11.77	14.79	1.26		33.86	22.66	0.00	0.000	0.000
1/31/1997	12.00	13.67	1.14		34.24	23.08	0.00	0.000	0.000
2/28/1997	13.16	14.46	1.10		34.60	23.49	0.00	0.000	0.000
3/31/1997	12.10	10.14	0.84		34.98	23.80	0.00	0.000	0.000
4/30/1997	11.35	6.48	0.57		35.32	23.99	0.00	0.000	0.000
5/31/1997	11.35	6.52	0.57		35.67	24.20	0.00	0.000	0.000
6/30/1997	10.52	8.00	0.76		35.99	24.44	0.00	0.000	0.000
7/31/1997	10.50	7.44	0.71		36.31	24.67	0.00	0.000	0.000
8/31/1997	8.73	5.76	0.66		36.58	24.85	0.00	0.000	0.000
9/30/1997	16.75	10.59	0.63		37.09	25.16	0.00	0.000	0.000
10/31/1997	20.42	15.59	0.76		37.72	25.65	0.00	0.000	0.000
11/30/1997	16.43	12.41	0.76		38.21	26.02	0.00	0.000	0.000

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12/31/1997	14.09	11.37	0.81		38.65	26.37	0.00	0.000	0.000
1/31/1998	14.13	11.91	0.84		39.09	26.74	0.00	0.000	0.000
2/28/1998	8.12	5.38	0.66		39.31	26.89	0.00	0.000	0.000
3/31/1998	14.21	11.28	0.79		39.75	27.24	0.00	0.000	0.000
4/30/1998	14.07	12.43	0.88		40.18	27.61	0.00	0.000	0.000
5/31/1998	13.82	11.86	0.86		40.61	27.98	0.00	0.000	0.000
6/30/1998	13.98	10.41	0.74		41.02	28.29	0.00	0.000	0.000
7/31/1998	13.31	9.58	0.72		41.44	28.59	0.00	0.000	0.000
8/31/1998	9.80	6.47	0.66		41.74	28.79	0.00	0.000	0.000
9/30/1998	13.09	8.55	0.65		42.13	29.05	0.00	0.000	0.000
10/31/1998	12.49	6.17	0.49		42.52	29.24	0.00	0.000	0.000
11/30/1998	10.84	5.84	0.54		42.85	29.41	0.00	0.000	0.000
12/31/1998	8.03	5.51	0.69		43.09	29.58	0.00	0.000	0.000
1/31/1999	6.63	4.52	0.68		43.30	29.72	0.00	0.000	0.000
2/28/1999	6.27	3.65	0.58		43.48	29.83	0.00	0.000	0.000
3/31/1999	9.66	7.31	0.76		43.78	30.05	0.00	0.000	0.000
4/30/1999	10.86	8.96	0.82		44.10	30.32	0.00	0.000	0.000
5/31/1999	5.67	3.75	0.66		44.28	30.44	0.00	0.000	0.000
6/30/1999	13.64	9.16	0.67		44.69	30.71	0.00	0.000	0.000
7/31/1999	12.43	4.74	0.38		45.07	30.86	0.00	0.000	0.000
8/31/1999	13.72	4.61	0.34		45.50	31.00	0.00	0.000	0.000
9/30/1999	13.83	6.50	0.47		45.91	31.20	0.00	0.000	0.000
10/31/1999	14.16	8.14	0.57		46.35	31.45	0.00	0.000	0.000
11/30/1999	14.02	10.86	0.77		46.77	31.78	0.00	0.000	0.000
12/31/1999	13.12	10.16	0.77		47.18	32.09	0.00	0.000	0.000
1/31/2000	12.93	10.53	0.81		47.58	32.42	0.00	0.000	0.000
2/29/2000	12.63	13.22	1.05		47.95	32.80	0.00	0.000	0.000
3/31/2000	12.45	13.82	1.11		48.33	33.23	0.00	0.000	0.000
4/30/2000	12.41	13.03	1.05		48.70	33.62	0.00	0.000	0.000
5/31/2000	10.44	10.77	1.03		49.03	33.96	0.00	0.000	0.000
6/30/2000	11.07	11.15	1.01		49.36	34.29	0.00	0.000	0.000
7/31/2000	11.72	11.62	0.99		49.72	34.65	0.00	0.000	0.000
8/31/2000	12.98	13.56	1.04		50.12	35.07	0.00	0.000	0.000
9/30/2000	13.94	13.17	0.94		50.54	35.47	0.00	0.000	0.000
10/31/2000	12.47	12.90	1.03		50.93	35.87	0.00	0.000	0.000
11/30/2000	11.41	11.76	1.03		51.27	36.22	0.00	0.000	0.000
12/31/2000	11.60	12.10	1.04		51.63	36.59	0.00	0.000	0.000
1/31/2001	11.46	11.96	1.04		51.99	36.96	0.00	0.000	0.000
2/28/2001	11.46	11.93	1.04		52.31	37.30	0.00	0.000	0.000
3/31/2001	11.53	12.13	1.05		52.67	37.67	0.00	0.000	0.000
4/30/2001	11.67	12.38	1.06		53.02	38.05	0.00	0.000	0.000
5/31/2001	11.44	11.31	0.99		53.37	38.40	0.00	0.000	0.000
6/30/2001	11.31	11.02	0.97		53.71	38.73	0.00	0.000	0.000
7/31/2001	9.43	8.61	0.91		54.00	38.99	0.00	0.000	0.000
8/31/2001	8.45	7.64	0.91		54.26	39.23	0.00	0.000	0.000
9/30/2001	8.42	7.48	0.89		54.52	39.46	0.00	0.000	0.000
10/31/2001	7.82	7.21	0.92		54.76	39.68	0.00	0.000	0.000
11/30/2001	7.64	6.81	0.89		54.99	39.88	0.00	0.000	0.000

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12/31/2001	7.29	6.45	0.88		55.21	40.08	0.00	0.000	0.000
1/31/2002	7.43	6.77	0.91		55.44	40.29	0.00	0.000	0.000
2/28/2002	9.30	11.45	1.23		55.70	40.61	0.00	0.000	0.000
3/31/2002	8.78	9.09	1.04		55.98	40.89	0.00	0.000	0.000
4/30/2002	8.70	8.56	0.98		56.24	41.15	0.00	0.000	0.000
5/31/2002	8.11	7.87	0.97		56.49	41.40	0.00	0.000	0.000
6/30/2002	8.18	7.77	0.95		56.73	41.63	0.00	0.000	0.000
7/31/2002	7.90	9.41	1.19		56.98	41.92	0.00	0.000	0.000
8/31/2002	7.71	9.05	1.17		57.22	42.20	0.00	0.000	0.000
9/30/2002	7.57	8.60	1.14		57.45	42.46	0.00	0.000	0.000
10/31/2002	8.00	9.29	1.16		57.69	42.75	0.00	0.000	0.000
11/30/2002	7.90	10.37	1.31		57.93	43.06	0.00	0.000	0.000
12/31/2002	8.30	10.52	1.27		58.19	43.38	0.00	0.000	0.000
1/31/2003	7.77	10.39	1.34		58.43	43.71	0.00	0.000	0.000
2/28/2003	7.34	8.27	1.13		58.63	43.94	0.00	0.000	0.000
3/31/2003	8.41	9.93	1.18		58.89	44.25	0.00	0.000	0.000
4/30/2003	8.43	9.83	1.17		59.15	44.54	0.00	0.000	0.000
5/31/2003	8.35	9.47	1.13		59.41	44.83	0.00	0.000	0.000
6/30/2003	8.29	9.78	1.18		59.65	45.13	0.00	0.000	0.000
7/31/2003	8.23	9.57	1.16		59.91	45.42	0.00	0.000	0.000
8/31/2003	8.03	9.73	1.21		60.16	45.73	0.00	0.000	0.000
9/30/2003	7.93	9.91	1.25		60.40	46.02	0.00	0.000	0.000
10/31/2003	7.80	9.77	1.25		60.64	46.33	0.00	0.000	0.000
11/30/2003	7.58	9.30	1.23		60.87	46.60	0.00	0.000	0.000
12/31/2003	7.50	8.68	1.16		61.10	46.87	0.00	0.000	0.000
1/31/2004	7.35	9.00	1.22		61.33	47.15	0.00	0.000	0.000
2/29/2004	7.40	8.80	1.19		61.54	47.41	0.00	0.000	0.000
3/31/2004	7.49	8.88	1.19		61.77	47.68	0.00	0.000	0.000
4/30/2004	7.18	9.30	1.30		61.99	47.96	0.00	0.000	0.000
5/31/2004	6.98	9.25	1.32		62.21	48.25	0.00	0.000	0.000
6/30/2004	6.82	9.19	1.35		62.41	48.52	0.00	0.000	0.000
7/31/2004	6.83	9.11	1.33		62.62	48.81	0.00	0.000	0.000
8/31/2004	6.82	9.04	1.33		62.83	49.09	0.00	0.000	0.000
9/30/2004	6.78	8.84	1.30		63.04	49.35	0.00	0.000	0.000
10/31/2004	7.05	8.49	1.20		63.25	49.62	0.00	0.000	0.000
11/30/2004	6.55	8.00	1.22		63.45	49.86	0.00	0.000	0.000
12/31/2004	5.31	7.72	1.46		63.62	50.10	0.00	0.000	0.000
1/31/2005	5.99	9.59	1.60		63.80	50.39	0.00	0.000	0.000
2/28/2005	5.79	10.14	1.75		63.96	50.68	0.00	0.000	0.000
3/31/2005	5.72	10.68	1.87		64.14	51.01	0.00	0.000	0.000
4/30/2005	7.11	11.69	1.64		64.35	51.36	0.00	0.000	0.000
5/31/2005	7.55	12.31	1.63		64.59	51.74	0.00	0.000	0.000
6/30/2005	7.46	12.27	1.65		64.81	52.11	0.00	0.000	0.000
7/31/2005	7.08	11.37	1.61		65.03	52.46	0.00	0.000	0.000
8/31/2005	6.97	9.50	1.36		65.25	52.76	0.00	0.000	0.000
9/30/2005	6.10	9.01	1.48		65.43	53.03	0.00	0.000	0.000
10/31/2005	5.82	9.72	1.67		65.61	53.33	0.00	0.000	0.000
11/30/2005	6.75	13.06	1.94		65.81	53.72	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
12/31/2005	6.68	13.12	1.96		66.02	54.13	0.00	0.000	0.000
1/31/2006	6.52	11.21	1.72		66.22	54.47	0.00	0.000	0.000
2/28/2006	6.60	10.97	1.66		66.41	54.78	0.00	0.000	0.000
3/31/2006	6.87	11.79	1.72		66.62	55.15	0.00	0.000	0.000
4/30/2006	6.54	10.79	1.65		66.82	55.47	0.00	0.000	0.000
5/31/2006	6.18	9.67	1.56		67.01	55.77	0.00	0.000	0.000
6/30/2006	5.94	9.77	1.64		67.19	56.06	0.00	0.000	0.000
7/31/2006	6.26	10.29	1.64		67.38	56.38	0.00	0.000	0.000
8/31/2006	6.17	9.56	1.55		67.57	56.68	0.00	0.000	0.000
9/30/2006	5.91	8.81	1.49		67.75	56.94	0.00	0.000	0.000
10/31/2006	5.56	8.41	1.51		67.92	57.20	0.00	0.000	0.000
11/30/2006	5.58	8.33	1.49		68.09	57.45	0.00	0.000	0.000
12/31/2006	5.88	7.97	1.36		68.27	57.70	0.00	0.000	0.000
1/31/2007	5.99	8.58	1.43		68.46	57.97	0.00	0.000	0.000
2/28/2007	6.13	8.64	1.41		68.63	58.21	0.00	0.000	0.000
3/31/2007	5.91	8.81	1.49		68.81	58.48	0.00	0.000	0.000
4/30/2007	5.53	9.14	1.65		68.98	58.75	0.00	0.000	0.000
5/31/2007	5.01	9.16	1.83		69.13	59.04	0.00	0.000	0.000
6/30/2007	5.06	9.00	1.78		69.29	59.31	0.00	0.000	0.000
7/31/2007	4.98	8.75	1.76		69.44	59.58	0.00	0.000	0.000
8/31/2007	5.42	8.28	1.53		69.61	59.84	0.00	0.000	0.000
9/30/2007	5.01	7.36	1.47		69.76	60.06	0.00	0.000	0.000
10/31/2007	5.12	7.58	1.48		69.92	60.29	0.00	0.000	0.000
11/30/2007	6.64	6.95	1.05		70.12	60.50	0.00	0.000	0.000
12/31/2007	5.64	8.66	1.54		70.29	60.77	0.00	0.000	0.000
1/31/2008	5.40	8.27	1.53		70.46	61.03	0.00	0.000	0.000
2/29/2008	5.07	8.12	1.60		70.61	61.26	0.00	0.000	0.000
3/31/2008	4.88	8.33	1.71		70.76	61.52	0.00	0.000	0.000
4/30/2008	5.73	15.26	2.66		70.93	61.98	0.00	0.000	0.000
5/31/2008	5.59	16.39	2.93		71.10	62.48	0.00	0.000	0.000
6/30/2008	5.31	16.56	3.12		71.26	62.98	0.00	0.000	0.000
7/31/2008	5.42	14.46	2.67		71.43	63.43	0.00	0.000	0.000
8/31/2008	5.76	9.62	1.67		71.61	63.73	0.00	0.000	0.000
9/30/2008	5.53	8.40	1.52		71.77	63.98	0.00	0.000	0.000
10/31/2008	5.85	8.45	1.44		71.95	64.24	0.00	0.000	0.000
11/30/2008	5.89	9.18	1.56		72.13	64.52	0.00	0.000	0.000
12/31/2008	5.94	9.33	1.57		72.32	64.81	0.00	0.000	0.000
1/31/2009	5.50	9.15	1.66		72.49	65.09	0.00	0.000	0.000
2/28/2009	5.20	9.35	1.80		72.63	65.35	0.00	0.000	0.000
3/31/2009	5.30	9.06	1.71		72.80	65.63	0.00	0.000	0.000
4/30/2009	4.80	9.13	1.90		72.94	65.91	0.00	0.000	0.000
5/31/2009	4.71	9.16	1.95		73.09	66.19	0.00	0.000	0.000
6/30/2009	4.48	8.80	1.96		73.22	66.45	0.00	0.000	0.000
7/31/2009	4.45	8.58	1.93		73.36	66.72	0.00	0.000	0.000
8/31/2009	3.93	7.78	1.98		73.48	66.96	0.00	0.000	0.000
9/30/2009	4.32	8.37	1.94		73.61	67.21	0.00	0.000	0.000
10/31/2009	4.30	8.14	1.90		73.74	67.47	0.00	0.000	0.000
11/30/2009	4.31	8.16	1.89		73.87	67.71	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
12/31/2009	4.15	8.08	1.94		74.00	67.96	0.00	0.000	0.000
1/31/2010	4.00	7.89	1.97		74.13	68.20	0.00	0.000	0.000
2/28/2010	4.03	7.97	1.98		74.24	68.43	0.00	0.000	0.000
3/31/2010	4.06	8.20	2.02		74.36	68.68	0.00	0.000	0.000
4/30/2010	4.14	8.27	2.00		74.49	68.93	0.00	0.000	0.000
5/31/2010	4.13	8.39	2.03		74.62	69.19	0.00	0.000	0.000
6/30/2010	4.10	8.60	2.10		74.74	69.45	0.00	0.000	0.000
7/31/2010	3.96	8.67	2.19		74.86	69.72	0.00	0.000	0.000
8/31/2010	3.87	8.40	2.17		74.98	69.98	0.00	0.000	0.000
9/30/2010	3.98	8.66	2.18		75.10	70.24	0.00	0.000	0.000
10/31/2010	4.04	7.95	1.97		75.23	70.48	0.00	0.000	0.000
11/30/2010	3.91	8.35	2.13		75.34	70.73	0.00	0.000	0.000
12/31/2010	3.78	7.63	2.02		75.46	70.97	0.00	0.000	0.000
1/31/2011	3.52	7.20	2.05		75.57	71.19	0.00	0.000	0.000
2/28/2011	3.40	7.10	2.09		75.67	71.39	0.00	0.000	0.000
3/31/2011	3.48	7.42	2.13		75.77	71.62	0.00	0.000	0.000
4/30/2011	3.33	7.73	2.32		75.87	71.85	0.00	0.000	0.000
5/31/2011	3.13	7.66	2.45		75.97	72.09	0.00	0.000	0.000
6/30/2011	2.21	5.97	2.70		76.04	72.27	0.00	0.000	0.000
7/31/2011	3.70	8.54	2.31		76.15	72.54	0.00	0.000	0.000
8/31/2011	3.59	7.81	2.18		76.26	72.78	0.00	0.000	0.000
9/30/2011	3.22	7.38	2.29		76.36	73.00	0.00	0.000	0.000
10/31/2011	3.37	8.76	2.60		76.46	73.27	0.00	0.000	0.000
11/30/2011	3.41	7.48	2.19		76.57	73.50	0.00	0.000	0.000
12/31/2011	3.28	7.54	2.30		76.67	73.73	0.00	0.000	0.000
1/31/2012	2.96	7.11	2.40		76.76	73.95	0.00	0.000	0.000
2/29/2012	3.02	8.38	2.77		76.85	74.19	0.00	0.000	0.000
3/31/2012	2.78	8.18	2.94		76.93	74.45	0.00	0.000	0.000
4/30/2012	2.87	8.24	2.87		77.02	74.69	0.00	0.000	0.000
5/31/2012	2.99	9.36	3.13		77.11	74.98	0.00	0.000	0.000
6/30/2012	3.01	9.31	3.09		77.20	75.26	0.00	0.000	0.000
7/31/2012	3.14	9.41	3.00		77.30	75.55	0.00	0.000	0.000
8/31/2012	2.45	9.04	3.69		77.38	75.83	0.00	0.000	0.000
9/30/2012	2.75	9.44	3.44		77.46	76.12	0.00	0.000	0.000
10/31/2012	2.71	9.12	3.36		77.54	76.40	0.00	0.000	0.000
11/30/2012	2.77	9.13	3.30		77.63	76.67	0.00	0.000	0.000
12/31/2012	2.65	9.05	3.41		77.71	76.96	0.00	0.000	0.000
1/31/2013	2.87	9.18	3.19		77.80	77.24	0.00	0.000	0.000
2/28/2013	2.84	9.04	3.18		77.88	77.49	0.00	0.000	0.000
3/31/2013	2.86	8.36	2.92		77.96	77.75	0.00	0.000	0.000
4/30/2013	2.75	8.28	3.01		78.05	78.00	0.00	0.000	0.000
5/31/2013	2.78	9.55	3.43		78.13	78.30	0.00	0.000	0.000
6/30/2013	2.68	8.21	3.06		78.21	78.54	0.00	0.000	0.000
7/31/2013	2.64	8.98	3.41		78.30	78.82	0.00	0.000	0.000
8/31/2013	2.67	8.57	3.21		78.38	79.09	0.00	0.000	0.000
9/30/2013	2.38	7.86	3.30		78.45	79.32	0.00	0.000	0.000
10/31/2013	2.55	7.77	3.05		78.53	79.56	0.00	0.000	0.000
11/30/2013	2.63	8.11	3.08		78.61	79.81	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
12/31/2013	2.54	8.36	3.29		78.69	80.07	0.00	0.000	0.000
1/31/2014	1.54	4.98	3.22		78.73	80.22	0.00	0.000	0.000
2/28/2014	0.56	2.18	3.92	2.18	78.75	80.28	0.06	0.889	0.001
3/31/2014	0.54	1.83	3.37	13.84	78.77	80.34	0.49	6.626	0.004
4/30/2014	1.01	3.33	3.28	19.50	78.80	80.44	1.08	5.109	0.009
5/31/2014	1.01	3.41	3.39	19.90	78.83	80.54	1.69	5.111	0.014
6/30/2014	1.01	3.51	3.47	19.10	78.86	80.65	2.27	4.779	0.019
7/31/2014	0.65	2.22	3.42	14.87	78.88	80.72	2.73	5.881	0.023
8/31/2014	1.12	3.63	3.25	25.42	78.91	80.83	3.51	6.102	0.030
9/30/2014	1.05	3.20	3.06	30.17	78.95	80.93	4.42	8.143	0.037
10/31/2014	1.06	3.02	2.84	34.55	78.98	81.02	5.49	9.790	0.046
11/30/2014	0.92	2.47	2.69	35.27	79.01	81.09	6.55	12.095	0.055
12/31/2014	3.03	5.10	1.69	35.03	79.10	81.25	7.63	5.346	0.064

Oil Formation Vol Factor : 1.240000 Pattern: 07-19-003-28Inj Set: NPU#1

Water Formation Vol Factor : 1.00000 m3/m3

June 02, 2015

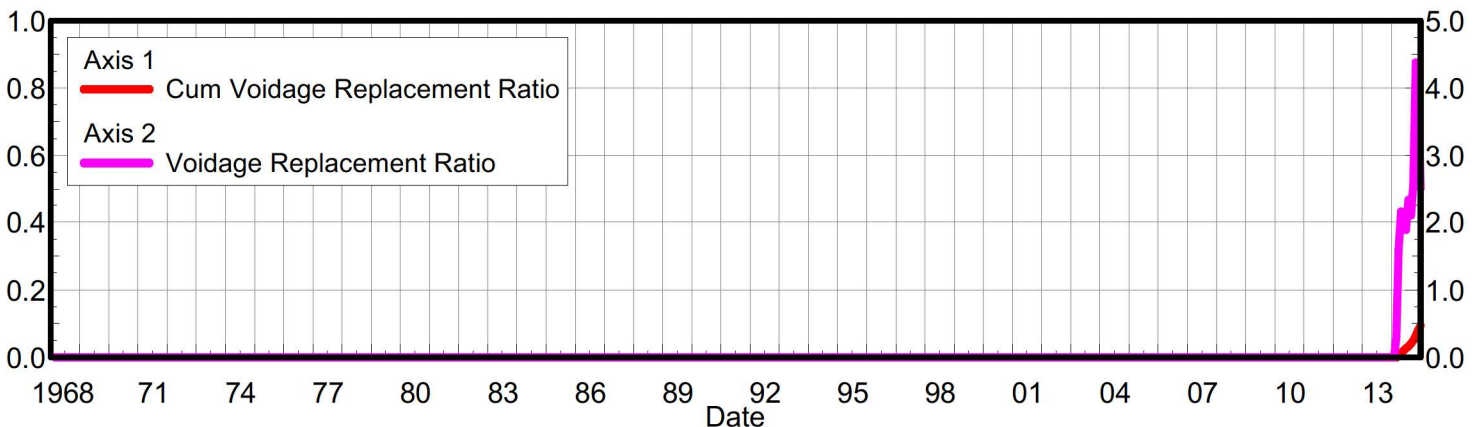
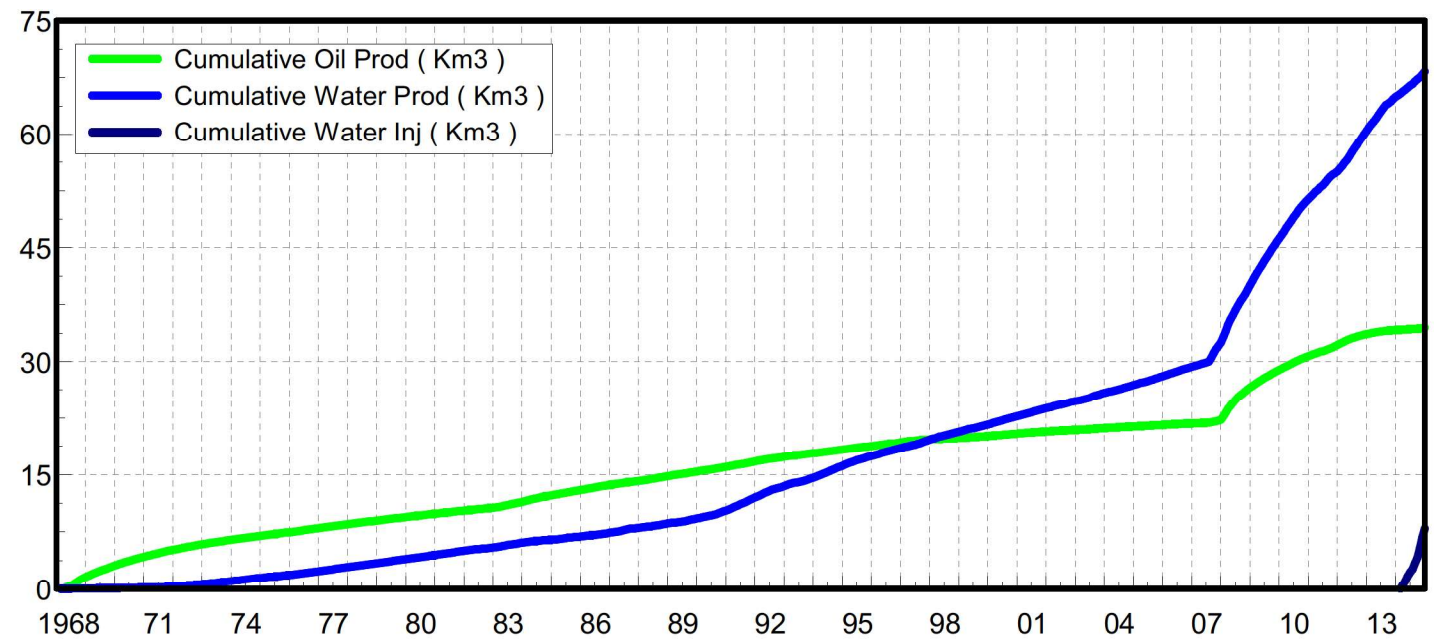
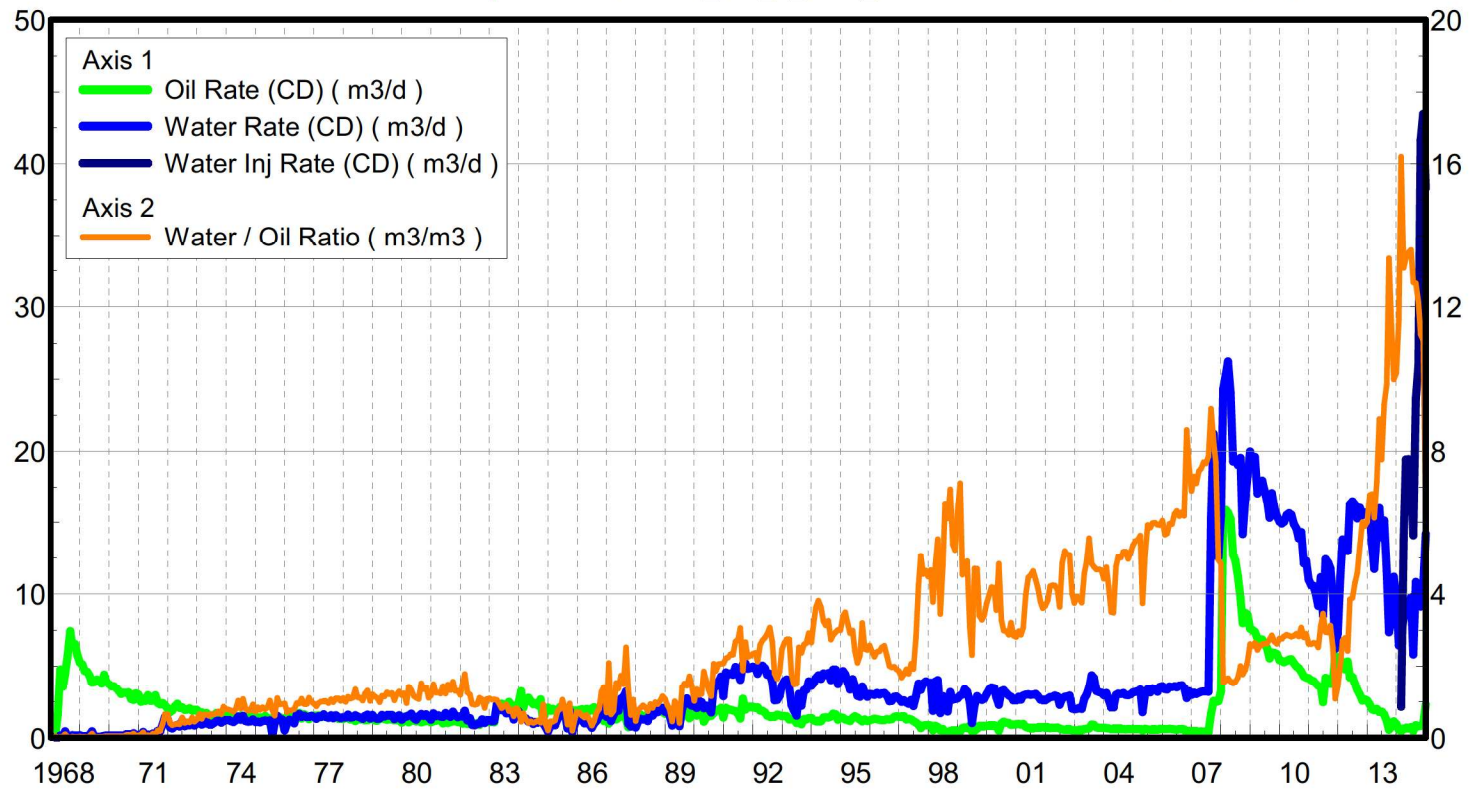
Water / Oil Ratio : 9.20 m3/m3

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 1.38 m3/d

Water Rate (CD) : 12.67 m3/d

Water Inj Rate (CD) : 48.04 m3/d



Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
2/29/1968	0.27	0.01	0.04		0.01	0.00	0.00	0.000	0.000
3/31/1968	1.59	0.00	0.00		0.06	0.00	0.00	0.000	0.000
4/30/1968	4.78	0.12	0.02		0.20	0.00	0.00	0.000	0.000
5/31/1968	3.56	0.12	0.03		0.31	0.01	0.00	0.000	0.000
6/30/1968	4.50	0.43	0.10		0.45	0.02	0.00	0.000	0.000
7/31/1968	5.77	0.11	0.02		0.62	0.02	0.00	0.000	0.000
8/31/1968	7.44	0.06	0.01		0.86	0.03	0.00	0.000	0.000
9/30/1968	6.36	0.17	0.03		1.05	0.03	0.00	0.000	0.000
10/31/1968	6.55	0.13	0.02		1.25	0.04	0.00	0.000	0.000
11/30/1968	5.80	0.11	0.02		1.42	0.04	0.00	0.000	0.000
12/31/1968	5.27	0.16	0.03		1.59	0.04	0.00	0.000	0.000
1/31/1969	5.13	0.10	0.02		1.75	0.05	0.00	0.000	0.000
2/28/1969	4.69	0.10	0.02		1.88	0.05	0.00	0.000	0.000
3/31/1969	4.62	0.08	0.02		2.02	0.05	0.00	0.000	0.000
4/30/1969	4.38	0.19	0.04		2.15	0.06	0.00	0.000	0.000
5/31/1969	3.84	0.43	0.11		2.27	0.07	0.00	0.000	0.000
6/30/1969	3.87	0.11	0.03		2.39	0.07	0.00	0.000	0.000
7/31/1969	4.09	0.06	0.01		2.51	0.08	0.00	0.000	0.000
8/31/1969	3.92	0.06	0.01		2.64	0.08	0.00	0.000	0.000
9/30/1969	3.78	0.07	0.02		2.75	0.08	0.00	0.000	0.000
10/31/1969	4.42	0.13	0.03		2.89	0.08	0.00	0.000	0.000
11/30/1969	3.87	0.16	0.04		3.00	0.09	0.00	0.000	0.000
12/31/1969	3.72	0.15	0.04		3.12	0.09	0.00	0.000	0.000
1/31/1970	3.58	0.15	0.04		3.23	0.10	0.00	0.000	0.000
2/28/1970	3.62	0.14	0.04		3.33	0.10	0.00	0.000	0.000
3/31/1970	3.44	0.14	0.04		3.44	0.11	0.00	0.000	0.000
4/30/1970	3.25	0.14	0.04		3.53	0.11	0.00	0.000	0.000
5/31/1970	3.05	0.13	0.04		3.63	0.11	0.00	0.000	0.000
6/30/1970	3.12	0.13	0.04		3.72	0.12	0.00	0.000	0.000
7/31/1970	3.10	0.21	0.07		3.82	0.13	0.00	0.000	0.000
8/31/1970	3.15	0.22	0.07		3.92	0.13	0.00	0.000	0.000
9/30/1970	2.68	0.21	0.08		4.00	0.14	0.00	0.000	0.000
10/31/1970	2.61	0.30	0.12		4.08	0.15	0.00	0.000	0.000
11/30/1970	3.08	0.17	0.05		4.17	0.15	0.00	0.000	0.000
12/31/1970	3.00	0.17	0.06		4.26	0.16	0.00	0.000	0.000
1/31/1971	2.50	0.22	0.09		4.34	0.17	0.00	0.000	0.000
2/28/1971	2.71	0.39	0.14		4.42	0.18	0.00	0.000	0.000
3/31/1971	2.56	0.07	0.03		4.50	0.18	0.00	0.000	0.000
4/30/1971	2.97	0.20	0.07		4.59	0.18	0.00	0.000	0.000
5/31/1971	2.55	0.10	0.04		4.66	0.19	0.00	0.000	0.000
6/30/1971	2.57	0.28	0.11		4.74	0.20	0.00	0.000	0.000
7/31/1971	2.96	0.30	0.10		4.83	0.21	0.00	0.000	0.000
8/31/1971	2.41	0.47	0.20		4.91	0.22	0.00	0.000	0.000
9/30/1971	2.31	0.45	0.20		4.98	0.23	0.00	0.000	0.000
10/31/1971	2.40	0.94	0.39		5.05	0.26	0.00	0.000	0.000
11/30/1971	2.24	1.44	0.65		5.12	0.31	0.00	0.000	0.000
12/31/1971	2.03	1.31	0.64		5.18	0.35	0.00	0.000	0.000
1/31/1972	1.78	0.71	0.40		5.24	0.37	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
2/29/1972	1.89	0.64	0.34		5.29	0.39	0.00	0.000	0.000
3/31/1972	2.18	0.80	0.37		5.36	0.41	0.00	0.000	0.000
4/30/1972	2.36	0.89	0.38		5.43	0.44	0.00	0.000	0.000
5/31/1972	2.09	0.78	0.37		5.49	0.46	0.00	0.000	0.000
6/30/1972	2.09	1.17	0.56		5.56	0.50	0.00	0.000	0.000
7/31/1972	1.94	0.79	0.41		5.62	0.52	0.00	0.000	0.000
8/31/1972	1.96	0.89	0.45		5.68	0.55	0.00	0.000	0.000
9/30/1972	2.04	0.86	0.42		5.74	0.58	0.00	0.000	0.000
10/31/1972	1.91	1.07	0.56		5.80	0.61	0.00	0.000	0.000
11/30/1972	1.90	0.84	0.44		5.86	0.63	0.00	0.000	0.000
12/31/1972	1.90	0.97	0.51		5.91	0.66	0.00	0.000	0.000
1/31/1973	1.73	1.13	0.65		5.97	0.70	0.00	0.000	0.000
2/28/1973	1.73	0.91	0.52		6.02	0.72	0.00	0.000	0.000
3/31/1973	1.52	0.98	0.64		6.06	0.76	0.00	0.000	0.000
4/30/1973	1.70	1.10	0.65		6.11	0.79	0.00	0.000	0.000
5/31/1973	1.54	0.92	0.60		6.16	0.82	0.00	0.000	0.000
6/30/1973	1.41	0.92	0.65		6.20	0.84	0.00	0.000	0.000
7/31/1973	1.55	1.00	0.65		6.25	0.88	0.00	0.000	0.000
8/31/1973	1.71	1.15	0.67		6.31	0.91	0.00	0.000	0.000
9/30/1973	1.60	1.17	0.73		6.35	0.95	0.00	0.000	0.000
10/31/1973	1.57	1.03	0.66		6.40	0.98	0.00	0.000	0.000
11/30/1973	1.35	1.16	0.86		6.44	1.01	0.00	0.000	0.000
12/31/1973	1.54	1.21	0.79		6.49	1.05	0.00	0.000	0.000
1/31/1974	1.55	1.21	0.78		6.54	1.09	0.00	0.000	0.000
2/28/1974	1.53	1.15	0.75		6.58	1.12	0.00	0.000	0.000
3/31/1974	1.52	1.08	0.72		6.63	1.15	0.00	0.000	0.000
4/30/1974	1.49	1.18	0.79		6.67	1.19	0.00	0.000	0.000
5/31/1974	1.42	1.47	1.03		6.72	1.23	0.00	0.000	0.000
6/30/1974	1.54	1.24	0.81		6.76	1.27	0.00	0.000	0.000
7/31/1974	1.40	1.50	1.07		6.81	1.32	0.00	0.000	0.000
8/31/1974	1.44	1.15	0.80		6.85	1.35	0.00	0.000	0.000
9/30/1974	1.44	1.10	0.76		6.89	1.39	0.00	0.000	0.000
10/31/1974	1.50	1.14	0.76		6.94	1.42	0.00	0.000	0.000
11/30/1974	1.37	1.26	0.93		6.98	1.46	0.00	0.000	0.000
12/31/1974	1.49	1.08	0.72		7.03	1.49	0.00	0.000	0.000
1/31/1975	1.32	1.11	0.84		7.07	1.53	0.00	0.000	0.000
2/28/1975	1.39	1.07	0.77		7.11	1.56	0.00	0.000	0.000
3/31/1975	1.36	1.15	0.84		7.15	1.59	0.00	0.000	0.000
4/30/1975	1.51	1.20	0.79		7.20	1.63	0.00	0.000	0.000
5/31/1975	1.38	1.14	0.83		7.24	1.67	0.00	0.000	0.000
6/30/1975	1.15	1.19	1.03		7.27	1.70	0.00	0.000	0.000
7/31/1975	0.22	0.17	0.76		7.28	1.71	0.00	0.000	0.000
8/31/1975	1.68	1.03	0.61		7.33	1.74	0.00	0.000	0.000
9/30/1975	1.37	1.51	1.10		7.37	1.78	0.00	0.000	0.000
10/31/1975	1.41	1.30	0.92		7.42	1.82	0.00	0.000	0.000
11/30/1975	1.35	1.26	0.93		7.46	1.86	0.00	0.000	0.000
12/31/1975	0.54	0.51	0.95		7.47	1.88	0.00	0.000	0.000
1/31/1976	1.39	0.98	0.71		7.52	1.91	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
2/29/1976	1.64	1.23	0.75		7.56	1.94	0.00	0.000	0.000
3/31/1976	1.52	1.16	0.77		7.61	1.98	0.00	0.000	0.000
4/30/1976	1.26	1.00	0.79		7.65	2.01	0.00	0.000	0.000
5/31/1976	1.67	1.59	0.96		7.70	2.06	0.00	0.000	0.000
6/30/1976	1.72	1.64	0.95		7.75	2.11	0.00	0.000	0.000
7/31/1976	1.33	1.45	1.08		7.79	2.15	0.00	0.000	0.000
8/31/1976	1.62	1.53	0.94		7.84	2.20	0.00	0.000	0.000
9/30/1976	1.53	1.44	0.94		7.89	2.24	0.00	0.000	0.000
10/31/1976	1.28	1.43	1.11		7.93	2.29	0.00	0.000	0.000
11/30/1976	1.52	1.50	0.99		7.97	2.33	0.00	0.000	0.000
12/31/1976	1.52	1.43	0.94		8.02	2.38	0.00	0.000	0.000
1/31/1977	1.50	1.30	0.87		8.07	2.42	0.00	0.000	0.000
2/28/1977	1.55	1.48	0.96		8.11	2.46	0.00	0.000	0.000
3/31/1977	1.42	1.43	1.01		8.16	2.50	0.00	0.000	0.000
4/30/1977	1.60	1.61	1.01		8.20	2.55	0.00	0.000	0.000
5/31/1977	1.43	1.45	1.01		8.25	2.60	0.00	0.000	0.000
6/30/1977	1.44	1.38	0.96		8.29	2.64	0.00	0.000	0.000
7/31/1977	1.45	1.55	1.06		8.34	2.69	0.00	0.000	0.000
8/31/1977	1.38	1.36	0.98		8.38	2.73	0.00	0.000	0.000
9/30/1977	1.44	1.56	1.08		8.42	2.78	0.00	0.000	0.000
10/31/1977	1.31	1.42	1.08		8.46	2.82	0.00	0.000	0.000
11/30/1977	1.33	1.36	1.02		8.50	2.86	0.00	0.000	0.000
12/31/1977	1.29	1.42	1.10		8.54	2.90	0.00	0.000	0.000
1/31/1978	1.41	1.39	0.99		8.59	2.95	0.00	0.000	0.000
2/28/1978	1.40	1.59	1.14		8.63	2.99	0.00	0.000	0.000
3/31/1978	1.29	1.40	1.09		8.67	3.03	0.00	0.000	0.000
4/30/1978	1.28	1.42	1.11		8.70	3.08	0.00	0.000	0.000
5/31/1978	1.14	1.55	1.35		8.74	3.13	0.00	0.000	0.000
6/30/1978	1.30	1.45	1.12		8.78	3.17	0.00	0.000	0.000
7/31/1978	1.26	1.39	1.11		8.82	3.21	0.00	0.000	0.000
8/31/1978	1.28	1.32	1.03		8.86	3.25	0.00	0.000	0.000
9/30/1978	1.22	1.50	1.23		8.89	3.30	0.00	0.000	0.000
10/31/1978	1.22	1.61	1.31		8.93	3.35	0.00	0.000	0.000
11/30/1978	1.29	1.32	1.02		8.97	3.39	0.00	0.000	0.000
12/31/1978	1.30	1.57	1.21		9.01	3.44	0.00	0.000	0.000
1/31/1979	1.19	1.37	1.15		9.05	3.48	0.00	0.000	0.000
2/28/1979	1.18	1.30	1.10		9.08	3.51	0.00	0.000	0.000
3/31/1979	1.33	1.32	0.99		9.12	3.56	0.00	0.000	0.000
4/30/1979	1.35	1.57	1.16		9.16	3.60	0.00	0.000	0.000
5/31/1979	1.28	1.46	1.14		9.20	3.65	0.00	0.000	0.000
6/30/1979	1.23	1.55	1.26		9.24	3.69	0.00	0.000	0.000
7/31/1979	1.28	1.54	1.21		9.28	3.74	0.00	0.000	0.000
8/31/1979	1.25	1.56	1.24		9.32	3.79	0.00	0.000	0.000
9/30/1979	1.23	1.27	1.04		9.35	3.83	0.00	0.000	0.000
10/31/1979	1.21	1.45	1.20		9.39	3.87	0.00	0.000	0.000
11/30/1979	1.21	1.56	1.29		9.43	3.92	0.00	0.000	0.000
12/31/1979	1.04	1.23	1.19		9.46	3.96	0.00	0.000	0.000
1/31/1980	1.15	1.42	1.24		9.50	4.00	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
2/29/1980	1.52	1.46	0.96		9.54	4.05	0.00	0.000	0.000
3/31/1980	1.07	1.52	1.43		9.57	4.09	0.00	0.000	0.000
4/30/1980	1.25	1.66	1.33		9.61	4.14	0.00	0.000	0.000
5/31/1980	1.17	1.35	1.15		9.65	4.18	0.00	0.000	0.000
6/30/1980	1.12	1.24	1.11		9.68	4.22	0.00	0.000	0.000
7/31/1980	1.38	1.48	1.07		9.72	4.27	0.00	0.000	0.000
8/31/1980	1.07	1.63	1.53		9.76	4.32	0.00	0.000	0.000
9/30/1980	1.11	1.50	1.35		9.79	4.36	0.00	0.000	0.000
10/31/1980	1.15	1.62	1.41		9.82	4.41	0.00	0.000	0.000
11/30/1980	1.27	1.41	1.11		9.86	4.46	0.00	0.000	0.000
12/31/1980	1.05	1.24	1.18		9.90	4.49	0.00	0.000	0.000
1/31/1981	1.12	1.68	1.50		9.93	4.55	0.00	0.000	0.000
2/28/1981	1.18	1.49	1.26		9.96	4.59	0.00	0.000	0.000
3/31/1981	1.22	1.54	1.27		10.00	4.64	0.00	0.000	0.000
4/30/1981	1.19	1.46	1.22		10.04	4.68	0.00	0.000	0.000
5/31/1981	0.99	1.44	1.45		10.07	4.72	0.00	0.000	0.000
6/30/1981	1.39	1.71	1.23		10.11	4.77	0.00	0.000	0.000
7/31/1981	1.02	1.53	1.50		10.14	4.82	0.00	0.000	0.000
8/31/1981	1.09	1.43	1.32		10.17	4.87	0.00	0.000	0.000
9/30/1981	1.14	1.79	1.57		10.21	4.92	0.00	0.000	0.000
10/31/1981	1.18	1.54	1.30		10.25	4.97	0.00	0.000	0.000
11/30/1981	1.08	1.41	1.31		10.28	5.01	0.00	0.000	0.000
12/31/1981	1.25	1.49	1.19		10.32	5.06	0.00	0.000	0.000
1/31/1982	0.96	1.45	1.51		10.35	5.10	0.00	0.000	0.000
2/28/1982	1.04	1.86	1.79		10.38	5.15	0.00	0.000	0.000
3/31/1982	0.96	1.20	1.26		10.41	5.19	0.00	0.000	0.000
4/30/1982	1.12	1.35	1.20		10.44	5.23	0.00	0.000	0.000
5/31/1982	0.94	0.87	0.93		10.47	5.26	0.00	0.000	0.000
6/30/1982	0.94	0.86	0.92		10.50	5.28	0.00	0.000	0.000
7/31/1982	1.02	0.95	0.93		10.53	5.31	0.00	0.000	0.000
8/31/1982	0.88	0.97	1.11		10.56	5.34	0.00	0.000	0.000
9/30/1982	1.18	1.26	1.07		10.59	5.38	0.00	0.000	0.000
10/31/1982	1.24	1.02	0.82		10.63	5.41	0.00	0.000	0.000
11/30/1982	1.12	1.19	1.07		10.66	5.45	0.00	0.000	0.000
12/31/1982	1.09	1.20	1.10		10.70	5.49	0.00	0.000	0.000
1/31/1983	1.07	1.14	1.06		10.73	5.52	0.00	0.000	0.000
2/28/1983	1.07	1.14	1.07		10.76	5.55	0.00	0.000	0.000
3/31/1983	2.19	2.29	1.05		10.83	5.62	0.00	0.000	0.000
4/30/1983	2.27	2.15	0.95		10.90	5.69	0.00	0.000	0.000
5/31/1983	2.35	1.91	0.82		10.97	5.75	0.00	0.000	0.000
6/30/1983	2.31	1.98	0.86		11.04	5.81	0.00	0.000	0.000
7/31/1983	1.82	1.69	0.93		11.09	5.86	0.00	0.000	0.000
8/31/1983	2.48	1.82	0.73		11.17	5.92	0.00	0.000	0.000
9/30/1983	2.29	1.81	0.79		11.24	5.97	0.00	0.000	0.000
10/31/1983	2.12	1.26	0.60		11.31	6.01	0.00	0.000	0.000
11/30/1983	2.18	1.78	0.81		11.37	6.06	0.00	0.000	0.000
12/31/1983	2.40	1.82	0.76		11.45	6.12	0.00	0.000	0.000
1/31/1984	3.24	1.44	0.44		11.55	6.16	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
2/29/1984	2.09	1.40	0.67		11.61	6.21	0.00	0.000	0.000
3/31/1984	2.66	1.33	0.50		11.69	6.25	0.00	0.000	0.000
4/30/1984	2.77	1.12	0.40		11.77	6.28	0.00	0.000	0.000
5/31/1984	2.56	1.16	0.45		11.85	6.32	0.00	0.000	0.000
6/30/1984	2.34	0.95	0.40		11.92	6.34	0.00	0.000	0.000
7/31/1984	2.40	1.07	0.44		12.00	6.38	0.00	0.000	0.000
8/31/1984	2.24	1.07	0.48		12.07	6.41	0.00	0.000	0.000
9/30/1984	2.67	1.10	0.41		12.15	6.44	0.00	0.000	0.000
10/31/1984	1.08	1.00	0.92		12.18	6.47	0.00	0.000	0.000
11/30/1984	1.95	0.74	0.38		12.24	6.50	0.00	0.000	0.000
12/31/1984	2.09	0.41	0.20		12.30	6.51	0.00	0.000	0.000
1/31/1985	1.85	0.83	0.45		12.36	6.54	0.00	0.000	0.000
2/28/1985	2.00	0.89	0.44		12.42	6.56	0.00	0.000	0.000
3/31/1985	1.84	0.87	0.48		12.47	6.59	0.00	0.000	0.000
4/30/1985	1.79	1.31	0.73		12.53	6.63	0.00	0.000	0.000
5/31/1985	2.14	1.70	0.80		12.59	6.68	0.00	0.000	0.000
6/30/1985	1.67	1.77	1.06		12.64	6.73	0.00	0.000	0.000
7/31/1985	2.10	1.69	0.81		12.71	6.78	0.00	0.000	0.000
8/31/1985	1.73	0.63	0.36		12.76	6.80	0.00	0.000	0.000
9/30/1985	1.97	1.88	0.95		12.82	6.86	0.00	0.000	0.000
10/31/1985	1.92	0.37	0.20		12.88	6.87	0.00	0.000	0.000
11/30/1985	1.86	0.97	0.52		12.94	6.90	0.00	0.000	0.000
12/31/1985	1.86	1.31	0.71		12.99	6.94	0.00	0.000	0.000
1/31/1986	1.92	1.32	0.69		13.05	6.98	0.00	0.000	0.000
2/28/1986	1.97	1.19	0.61		13.11	7.02	0.00	0.000	0.000
3/31/1986	1.80	1.00	0.56		13.16	7.05	0.00	0.000	0.000
4/30/1986	2.00	1.25	0.63		13.22	7.09	0.00	0.000	0.000
5/31/1986	1.84	0.93	0.51		13.28	7.11	0.00	0.000	0.000
6/30/1986	2.02	0.68	0.34		13.34	7.13	0.00	0.000	0.000
7/31/1986	2.11	0.98	0.46		13.41	7.16	0.00	0.000	0.000
8/31/1986	1.68	1.16	0.69		13.46	7.20	0.00	0.000	0.000
9/30/1986	1.85	1.48	0.80		13.52	7.25	0.00	0.000	0.000
10/31/1986	1.83	2.35	1.28		13.57	7.32	0.00	0.000	0.000
11/30/1986	1.16	1.64	1.42		13.61	7.37	0.00	0.000	0.000
12/31/1986	2.06	1.44	0.70		13.67	7.41	0.00	0.000	0.000
1/31/1987	0.97	2.03	2.09		13.70	7.48	0.00	0.000	0.000
2/28/1987	1.79	1.16	0.65		13.75	7.51	0.00	0.000	0.000
3/31/1987	2.12	1.57	0.74		13.82	7.56	0.00	0.000	0.000
4/30/1987	1.26	1.94	1.54		13.85	7.61	0.00	0.000	0.000
5/31/1987	1.37	1.87	1.37		13.90	7.67	0.00	0.000	0.000
6/30/1987	1.56	2.71	1.74		13.94	7.75	0.00	0.000	0.000
7/31/1987	1.89	2.84	1.50		14.00	7.84	0.00	0.000	0.000
8/31/1987	1.27	3.22	2.53		14.04	7.94	0.00	0.000	0.000
9/30/1987	0.72	0.96	1.34		14.06	7.97	0.00	0.000	0.000
10/31/1987	1.22	0.76	0.63		14.10	7.99	0.00	0.000	0.000
11/30/1987	1.56	1.65	1.05		14.15	8.04	0.00	0.000	0.000
12/31/1987	1.56	0.71	0.46		14.20	8.07	0.00	0.000	0.000
1/31/1988	1.51	1.16	0.77		14.24	8.10	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
2/29/1988	1.59	1.31	0.83		14.29	8.14	0.00	0.000	0.000
3/31/1988	1.40	1.25	0.89		14.33	8.18	0.00	0.000	0.000
4/30/1988	1.51	1.27	0.84		14.38	8.22	0.00	0.000	0.000
5/31/1988	1.56	1.15	0.74		14.43	8.25	0.00	0.000	0.000
6/30/1988	1.83	1.71	0.93		14.48	8.30	0.00	0.000	0.000
7/31/1988	1.85	1.52	0.82		14.54	8.35	0.00	0.000	0.000
8/31/1988	1.83	1.80	0.98		14.60	8.41	0.00	0.000	0.000
9/30/1988	1.90	1.78	0.94		14.65	8.46	0.00	0.000	0.000
10/31/1988	2.01	2.05	1.02		14.71	8.52	0.00	0.000	0.000
11/30/1988	1.77	2.04	1.15		14.77	8.58	0.00	0.000	0.000
12/31/1988	1.66	1.79	1.08		14.82	8.64	0.00	0.000	0.000
1/31/1989	1.94	1.76	0.91		14.88	8.69	0.00	0.000	0.000
2/28/1989	1.92	1.52	0.79		14.93	8.74	0.00	0.000	0.000
3/31/1989	1.85	0.83	0.45		14.99	8.76	0.00	0.000	0.000
4/30/1989	1.32	1.33	1.01		15.03	8.80	0.00	0.000	0.000
5/31/1989	1.28	1.18	0.92		15.07	8.84	0.00	0.000	0.000
6/30/1989	1.95	0.80	0.41		15.13	8.86	0.00	0.000	0.000
7/31/1989	1.41	1.98	1.40		15.17	8.92	0.00	0.000	0.000
8/31/1989	1.61	2.45	1.52		15.22	9.00	0.00	0.000	0.000
9/30/1989	1.89	2.73	1.45		15.28	9.08	0.00	0.000	0.000
10/31/1989	1.36	2.34	1.72		15.32	9.16	0.00	0.000	0.000
11/30/1989	1.52	2.22	1.46		15.37	9.22	0.00	0.000	0.000
12/31/1989	2.15	2.19	1.02		15.43	9.29	0.00	0.000	0.000
1/31/1990	1.53	2.07	1.35		15.48	9.35	0.00	0.000	0.000
2/28/1990	2.14	2.55	1.19		15.54	9.43	0.00	0.000	0.000
3/31/1990	2.03	2.47	1.22		15.60	9.50	0.00	0.000	0.000
4/30/1990	1.09	2.03	1.86		15.64	9.56	0.00	0.000	0.000
5/31/1990	1.40	2.21	1.58		15.68	9.63	0.00	0.000	0.000
6/30/1990	1.52	2.02	1.33		15.72	9.69	0.00	0.000	0.000
7/31/1990	1.51	1.75	1.16		15.77	9.75	0.00	0.000	0.000
8/31/1990	1.71	3.55	2.08		15.82	9.86	0.00	0.000	0.000
9/30/1990	1.90	3.57	1.88		15.88	9.96	0.00	0.000	0.000
10/31/1990	1.91	3.93	2.06		15.94	10.09	0.00	0.000	0.000
11/30/1990	2.07	4.30	2.08		16.00	10.21	0.00	0.000	0.000
12/31/1990	1.38	2.88	2.08		16.05	10.30	0.00	0.000	0.000
1/31/1991	2.05	4.57	2.22		16.11	10.45	0.00	0.000	0.000
2/28/1991	1.97	4.43	2.25		16.16	10.57	0.00	0.000	0.000
3/31/1991	1.94	4.51	2.33		16.22	10.71	0.00	0.000	0.000
4/30/1991	1.89	4.42	2.33		16.28	10.84	0.00	0.000	0.000
5/31/1991	1.84	4.96	2.69		16.34	11.00	0.00	0.000	0.000
6/30/1991	1.63	4.47	2.75		16.39	11.13	0.00	0.000	0.000
7/31/1991	1.33	4.06	3.06		16.43	11.26	0.00	0.000	0.000
8/31/1991	2.71	5.13	1.89		16.51	11.41	0.00	0.000	0.000
9/30/1991	1.95	5.20	2.67		16.57	11.57	0.00	0.000	0.000
10/31/1991	2.14	4.84	2.26		16.64	11.72	0.00	0.000	0.000
11/30/1991	2.13	4.89	2.29		16.70	11.87	0.00	0.000	0.000
12/31/1991	2.12	4.98	2.35		16.77	12.02	0.00	0.000	0.000
1/31/1992	2.05	4.89	2.38		16.83	12.17	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
2/29/1992	2.10	4.49	2.14		16.89	12.30	0.00	0.000	0.000
3/31/1992	1.88	4.89	2.60		16.95	12.46	0.00	0.000	0.000
4/30/1992	1.86	5.04	2.72		17.01	12.61	0.00	0.000	0.000
5/31/1992	1.74	4.86	2.79		17.06	12.76	0.00	0.000	0.000
6/30/1992	1.53	4.42	2.89		17.11	12.89	0.00	0.000	0.000
7/31/1992	1.47	4.50	3.07		17.15	13.03	0.00	0.000	0.000
8/31/1992	1.47	3.93	2.68		17.20	13.15	0.00	0.000	0.000
9/30/1992	1.44	2.60	1.81		17.24	13.23	0.00	0.000	0.000
10/31/1992	1.59	2.63	1.65		17.29	13.31	0.00	0.000	0.000
11/30/1992	1.56	2.90	1.86		17.34	13.40	0.00	0.000	0.000
12/31/1992	1.48	3.66	2.48		17.38	13.51	0.00	0.000	0.000
1/31/1993	1.50	3.99	2.65		17.43	13.63	0.00	0.000	0.000
2/28/1993	1.49	4.09	2.74		17.47	13.75	0.00	0.000	0.000
3/31/1993	1.27	3.49	2.74		17.51	13.86	0.00	0.000	0.000
4/30/1993	1.28	2.27	1.78		17.55	13.93	0.00	0.000	0.000
5/31/1993	1.25	1.86	1.48		17.59	13.98	0.00	0.000	0.000
6/30/1993	1.02	1.54	1.50		17.62	14.03	0.00	0.000	0.000
7/31/1993	1.21	3.05	2.53		17.65	14.12	0.00	0.000	0.000
8/31/1993	0.93	2.21	2.37		17.68	14.19	0.00	0.000	0.000
9/30/1993	1.27	3.32	2.60		17.72	14.29	0.00	0.000	0.000
10/31/1993	1.26	3.33	2.65		17.76	14.39	0.00	0.000	0.000
11/30/1993	1.36	3.95	2.92		17.80	14.51	0.00	0.000	0.000
12/31/1993	1.36	3.62	2.66		17.84	14.63	0.00	0.000	0.000
1/31/1994	1.19	3.79	3.18		17.88	14.74	0.00	0.000	0.000
2/28/1994	1.16	4.19	3.63		17.91	14.86	0.00	0.000	0.000
3/31/1994	1.15	4.38	3.81		17.95	15.00	0.00	0.000	0.000
4/30/1994	1.14	4.14	3.64		17.98	15.12	0.00	0.000	0.000
5/31/1994	1.39	4.51	3.24		18.03	15.26	0.00	0.000	0.000
6/30/1994	1.41	4.41	3.14		18.07	15.39	0.00	0.000	0.000
7/31/1994	1.39	4.54	3.26		18.11	15.53	0.00	0.000	0.000
8/31/1994	1.47	4.04	2.74		18.16	15.66	0.00	0.000	0.000
9/30/1994	1.66	4.75	2.86		18.21	15.80	0.00	0.000	0.000
10/31/1994	1.61	4.76	2.95		18.26	15.95	0.00	0.000	0.000
11/30/1994	1.24	3.73	3.01		18.29	16.06	0.00	0.000	0.000
12/31/1994	1.42	4.26	3.00		18.34	16.19	0.00	0.000	0.000
1/31/1995	1.37	4.66	3.40		18.38	16.34	0.00	0.000	0.000
2/28/1995	1.27	4.44	3.49		18.42	16.46	0.00	0.000	0.000
3/31/1995	1.22	3.87	3.17		18.45	16.58	0.00	0.000	0.000
4/30/1995	1.15	3.35	2.92		18.49	16.68	0.00	0.000	0.000
5/31/1995	1.38	4.12	2.99		18.53	16.81	0.00	0.000	0.000
6/30/1995	1.48	3.61	2.43		18.58	16.92	0.00	0.000	0.000
7/31/1995	1.39	2.91	2.10		18.62	17.01	0.00	0.000	0.000
8/31/1995	1.23	2.84	2.30		18.66	17.10	0.00	0.000	0.000
9/30/1995	1.12	3.59	3.19		18.69	17.20	0.00	0.000	0.000
10/31/1995	1.25	3.11	2.48		18.73	17.30	0.00	0.000	0.000
11/30/1995	1.15	2.83	2.46		18.76	17.39	0.00	0.000	0.000
12/31/1995	1.18	3.05	2.58		18.80	17.48	0.00	0.000	0.000
1/31/1996	1.26	3.02	2.40		18.84	17.57	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
2/29/1996	1.31	2.97	2.27		18.88	17.66	0.00	0.000	0.000
3/31/1996	1.29	3.10	2.41		18.92	17.76	0.00	0.000	0.000
4/30/1996	1.24	3.00	2.42		18.96	17.85	0.00	0.000	0.000
5/31/1996	1.23	3.10	2.52		18.99	17.94	0.00	0.000	0.000
6/30/1996	1.21	3.12	2.57		19.03	18.04	0.00	0.000	0.000
7/31/1996	1.27	2.92	2.29		19.07	18.13	0.00	0.000	0.000
8/31/1996	1.25	2.52	2.01		19.11	18.20	0.00	0.000	0.000
9/30/1996	1.29	2.55	1.97		19.15	18.28	0.00	0.000	0.000
10/31/1996	1.43	2.85	1.99		19.19	18.37	0.00	0.000	0.000
11/30/1996	1.49	2.87	1.92		19.24	18.46	0.00	0.000	0.000
12/31/1996	1.45	2.70	1.86		19.28	18.54	0.00	0.000	0.000
1/31/1997	1.47	2.49	1.69		19.33	18.62	0.00	0.000	0.000
2/28/1997	1.47	2.60	1.77		19.37	18.69	0.00	0.000	0.000
3/31/1997	1.26	2.43	1.93		19.41	18.76	0.00	0.000	0.000
4/30/1997	1.31	2.35	1.80		19.45	18.84	0.00	0.000	0.000
5/31/1997	1.26	2.62	2.08		19.48	18.92	0.00	0.000	0.000
6/30/1997	1.14	2.20	1.93		19.52	18.98	0.00	0.000	0.000
7/31/1997	1.03	2.89	2.82		19.55	19.07	0.00	0.000	0.000
8/31/1997	0.90	3.80	4.24		19.58	19.19	0.00	0.000	0.000
9/30/1997	0.66	3.33	5.06		19.60	19.29	0.00	0.000	0.000
10/31/1997	0.84	3.83	4.55		19.62	19.41	0.00	0.000	0.000
11/30/1997	0.85	3.96	4.64		19.65	19.53	0.00	0.000	0.000
12/31/1997	0.86	3.84	4.48		19.68	19.65	0.00	0.000	0.000
1/31/1998	0.83	3.88	4.66		19.70	19.77	0.00	0.000	0.000
2/28/1998	0.49	1.86	3.77		19.72	19.82	0.00	0.000	0.000
3/31/1998	0.82	3.95	4.84		19.74	19.94	0.00	0.000	0.000
4/30/1998	0.73	4.05	5.52		19.76	20.06	0.00	0.000	0.000
5/31/1998	0.49	1.70	3.44		19.78	20.12	0.00	0.000	0.000
6/30/1998	0.60	2.88	4.79		19.80	20.20	0.00	0.000	0.000
7/31/1998	0.40	2.64	6.53		19.81	20.28	0.00	0.000	0.000
8/31/1998	0.30	1.82	6.11		19.82	20.34	0.00	0.000	0.000
9/30/1998	0.46	3.17	6.93		19.83	20.44	0.00	0.000	0.000
10/31/1998	0.49	2.64	5.37		19.85	20.52	0.00	0.000	0.000
11/30/1998	0.51	2.68	5.22		19.86	20.60	0.00	0.000	0.000
12/31/1998	0.43	2.73	6.29		19.88	20.68	0.00	0.000	0.000
1/31/1999	0.41	2.93	7.10		19.89	20.77	0.00	0.000	0.000
2/28/1999	0.66	2.99	4.53		19.91	20.86	0.00	0.000	0.000
3/31/1999	0.70	3.38	4.83		19.93	20.96	0.00	0.000	0.000
4/30/1999	0.65	3.20	4.90		19.95	21.06	0.00	0.000	0.000
5/31/1999	0.81	2.50	3.09		19.97	21.14	0.00	0.000	0.000
6/30/1999	0.43	1.01	2.32		19.99	21.17	0.00	0.000	0.000
7/31/1999	0.48	2.27	4.70		20.00	21.24	0.00	0.000	0.000
8/31/1999	0.62	2.89	4.70		20.02	21.33	0.00	0.000	0.000
9/30/1999	0.81	2.74	3.41		20.05	21.41	0.00	0.000	0.000
10/31/1999	0.80	2.62	3.28		20.07	21.49	0.00	0.000	0.000
11/30/1999	0.79	2.71	3.41		20.09	21.57	0.00	0.000	0.000
12/31/1999	0.81	3.04	3.75		20.12	21.66	0.00	0.000	0.000
1/31/2000	0.84	3.35	3.98		20.15	21.77	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
2/29/2000	0.84	3.53	4.19		20.17	21.87	0.00	0.000	0.000
3/31/2000	0.84	3.48	4.16		20.20	21.98	0.00	0.000	0.000
4/30/2000	0.79	2.80	3.56		20.22	22.06	0.00	0.000	0.000
5/31/2000	0.47	2.28	4.83		20.23	22.13	0.00	0.000	0.000
6/30/2000	0.99	3.24	3.27		20.26	22.23	0.00	0.000	0.000
7/31/2000	1.11	3.31	2.99		20.30	22.33	0.00	0.000	0.000
8/31/2000	1.05	3.11	2.97		20.33	22.43	0.00	0.000	0.000
9/30/2000	1.02	2.93	2.88		20.36	22.52	0.00	0.000	0.000
10/31/2000	0.89	2.84	3.20		20.39	22.61	0.00	0.000	0.000
11/30/2000	0.91	2.60	2.85		20.42	22.68	0.00	0.000	0.000
12/31/2000	0.92	2.60	2.82		20.44	22.76	0.00	0.000	0.000
1/31/2001	0.95	2.83	2.97		20.47	22.85	0.00	0.000	0.000
2/28/2001	0.92	2.63	2.88		20.50	22.93	0.00	0.000	0.000
3/31/2001	0.96	2.92	3.06		20.53	23.02	0.00	0.000	0.000
4/30/2001	0.75	2.99	3.98		20.55	23.11	0.00	0.000	0.000
5/31/2001	0.68	3.02	4.45		20.57	23.20	0.00	0.000	0.000
6/30/2001	0.66	2.97	4.52		20.59	23.29	0.00	0.000	0.000
7/31/2001	0.65	3.00	4.63		20.61	23.38	0.00	0.000	0.000
8/31/2001	0.69	3.03	4.39		20.63	23.48	0.00	0.000	0.000
9/30/2001	0.69	2.88	4.16		20.66	23.56	0.00	0.000	0.000
10/31/2001	0.70	2.64	3.78		20.68	23.64	0.00	0.000	0.000
11/30/2001	0.73	2.62	3.60		20.70	23.72	0.00	0.000	0.000
12/31/2001	0.71	2.61	3.67		20.72	23.80	0.00	0.000	0.000
1/31/2002	0.70	2.70	3.83		20.74	23.89	0.00	0.000	0.000
2/28/2002	0.67	2.81	4.21		20.76	23.97	0.00	0.000	0.000
3/31/2002	0.67	2.85	4.24		20.78	24.06	0.00	0.000	0.000
4/30/2002	0.69	2.92	4.23		20.80	24.14	0.00	0.000	0.000
5/31/2002	0.70	2.86	4.11		20.82	24.23	0.00	0.000	0.000
6/30/2002	0.63	2.29	3.64		20.84	24.30	0.00	0.000	0.000
7/31/2002	0.56	2.72	4.86		20.86	24.38	0.00	0.000	0.000
8/31/2002	0.55	2.84	5.19		20.88	24.47	0.00	0.000	0.000
9/30/2002	0.56	2.86	5.09		20.89	24.56	0.00	0.000	0.000
10/31/2002	0.58	2.94	5.08		20.91	24.65	0.00	0.000	0.000
11/30/2002	0.51	2.02	4.00		20.93	24.71	0.00	0.000	0.000
12/31/2002	0.53	1.98	3.75		20.94	24.77	0.00	0.000	0.000
1/31/2003	0.51	1.99	3.93		20.96	24.83	0.00	0.000	0.000
2/28/2003	0.53	2.06	3.87		20.97	24.89	0.00	0.000	0.000
3/31/2003	0.53	2.00	3.76		20.99	24.95	0.00	0.000	0.000
4/30/2003	0.59	2.70	4.57		21.01	25.03	0.00	0.000	0.000
5/31/2003	0.61	2.99	4.88		21.03	25.13	0.00	0.000	0.000
6/30/2003	0.63	3.48	5.55		21.05	25.23	0.00	0.000	0.000
7/31/2003	0.91	4.38	4.84		21.07	25.37	0.00	0.000	0.000
8/31/2003	0.89	4.20	4.74		21.10	25.50	0.00	0.000	0.000
9/30/2003	0.69	3.24	4.68		21.12	25.59	0.00	0.000	0.000
10/31/2003	0.68	3.17	4.68		21.14	25.69	0.00	0.000	0.000
11/30/2003	0.67	3.13	4.66		21.16	25.79	0.00	0.000	0.000
12/31/2003	0.67	2.96	4.42		21.18	25.88	0.00	0.000	0.000
1/31/2004	0.65	3.10	4.73		21.20	25.97	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
2/29/2004	0.63	2.64	4.21		21.22	26.05	0.00	0.000	0.000
3/31/2004	0.60	2.10	3.50		21.24	26.12	0.00	0.000	0.000
4/30/2004	0.61	2.12	3.48		21.26	26.18	0.00	0.000	0.000
5/31/2004	0.63	2.98	4.76		21.28	26.27	0.00	0.000	0.000
6/30/2004	0.61	3.07	5.03		21.30	26.36	0.00	0.000	0.000
7/31/2004	0.61	3.04	5.01		21.32	26.46	0.00	0.000	0.000
8/31/2004	0.60	3.12	5.17		21.34	26.55	0.00	0.000	0.000
9/30/2004	0.58	2.98	5.16		21.35	26.64	0.00	0.000	0.000
10/31/2004	0.60	2.96	4.97		21.37	26.74	0.00	0.000	0.000
11/30/2004	0.59	3.03	5.15		21.39	26.83	0.00	0.000	0.000
12/31/2004	0.59	3.17	5.35		21.41	26.92	0.00	0.000	0.000
1/31/2005	0.59	3.21	5.47		21.42	27.02	0.00	0.000	0.000
2/28/2005	0.59	3.25	5.51		21.44	27.11	0.00	0.000	0.000
3/31/2005	0.60	3.35	5.63		21.46	27.22	0.00	0.000	0.000
4/30/2005	0.48	1.78	3.74		21.47	27.27	0.00	0.000	0.000
5/31/2005	0.61	3.09	5.10		21.49	27.37	0.00	0.000	0.000
6/30/2005	0.57	3.38	5.92		21.51	27.47	0.00	0.000	0.000
7/31/2005	0.54	3.17	5.84		21.53	27.57	0.00	0.000	0.000
8/31/2005	0.58	3.47	5.97		21.54	27.68	0.00	0.000	0.000
9/30/2005	0.57	3.39	5.98		21.56	27.78	0.00	0.000	0.000
10/31/2005	0.54	3.21	5.92		21.58	27.88	0.00	0.000	0.000
11/30/2005	0.60	3.58	5.92		21.60	27.98	0.00	0.000	0.000
12/31/2005	0.60	3.61	6.04		21.62	28.10	0.00	0.000	0.000
1/31/2006	0.60	3.38	5.65		21.63	28.20	0.00	0.000	0.000
2/28/2006	0.59	3.35	5.68		21.65	28.29	0.00	0.000	0.000
3/31/2006	0.61	3.60	5.96		21.67	28.41	0.00	0.000	0.000
4/30/2006	0.59	3.54	5.94		21.69	28.51	0.00	0.000	0.000
5/31/2006	0.58	3.62	6.23		21.71	28.62	0.00	0.000	0.000
6/30/2006	0.56	3.50	6.31		21.72	28.73	0.00	0.000	0.000
7/31/2006	0.60	3.67	6.16		21.74	28.84	0.00	0.000	0.000
8/31/2006	0.59	3.69	6.27		21.76	28.96	0.00	0.000	0.000
9/30/2006	0.57	3.50	6.17		21.78	29.06	0.00	0.000	0.000
10/31/2006	0.32	2.75	8.58		21.79	29.15	0.00	0.000	0.000
11/30/2006	0.43	3.24	7.60		21.80	29.25	0.00	0.000	0.000
12/31/2006	0.43	2.97	6.88		21.81	29.34	0.00	0.000	0.000
1/31/2007	0.43	3.13	7.29		21.82	29.43	0.00	0.000	0.000
2/28/2007	0.43	3.05	7.10		21.84	29.52	0.00	0.000	0.000
3/31/2007	0.42	3.14	7.44		21.85	29.62	0.00	0.000	0.000
4/30/2007	0.43	3.21	7.51		21.86	29.71	0.00	0.000	0.000
5/31/2007	0.42	3.23	7.69		21.88	29.81	0.00	0.000	0.000
6/30/2007	0.42	3.21	7.65		21.89	29.91	0.00	0.000	0.000
7/31/2007	0.41	3.21	7.85		21.90	30.01	0.00	0.000	0.000
8/31/2007	1.67	15.30	9.17		21.95	30.48	0.00	0.000	0.000
9/30/2007	2.56	21.19	8.27		22.03	31.12	0.00	0.000	0.000
10/31/2007	2.49	19.15	7.69		22.11	31.71	0.00	0.000	0.000
11/30/2007	2.54	12.54	4.94		22.18	32.09	0.00	0.000	0.000
12/31/2007	3.19	15.45	4.84		22.28	32.57	0.00	0.000	0.000
1/31/2008	15.74	24.27	1.54		22.77	33.32	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
2/29/2008	15.84	25.29	1.60		23.23	34.05	0.00	0.000	0.000
3/31/2008	15.67	26.23	1.67		23.72	34.87	0.00	0.000	0.000
4/30/2008	15.22	24.05	1.58		24.17	35.59	0.00	0.000	0.000
5/31/2008	12.72	19.27	1.51		24.57	36.19	0.00	0.000	0.000
6/30/2008	12.32	19.36	1.57		24.94	36.77	0.00	0.000	0.000
7/31/2008	11.23	19.02	1.69		25.28	37.36	0.00	0.000	0.000
8/31/2008	9.71	19.52	2.01		25.58	37.96	0.00	0.000	0.000
9/30/2008	7.98	14.17	1.77		25.82	38.39	0.00	0.000	0.000
10/31/2008	8.69	16.57	1.91		26.09	38.90	0.00	0.000	0.000
11/30/2008	8.56	18.26	2.13		26.35	39.45	0.00	0.000	0.000
12/31/2008	7.62	19.96	2.62		26.59	40.07	0.00	0.000	0.000
1/31/2009	7.51	19.23	2.56		26.82	40.66	0.00	0.000	0.000
2/28/2009	7.39	19.58	2.65		27.03	41.21	0.00	0.000	0.000
3/31/2009	6.94	17.03	2.45		27.24	41.74	0.00	0.000	0.000
4/30/2009	6.88	17.60	2.56		27.45	42.27	0.00	0.000	0.000
5/31/2009	6.85	17.94	2.62		27.66	42.82	0.00	0.000	0.000
6/30/2009	6.56	17.25	2.63		27.86	43.34	0.00	0.000	0.000
7/31/2009	6.27	16.55	2.64		28.05	43.85	0.00	0.000	0.000
8/31/2009	5.56	15.30	2.75		28.22	44.33	0.00	0.000	0.000
9/30/2009	5.96	17.06	2.86		28.40	44.84	0.00	0.000	0.000
10/31/2009	5.95	15.99	2.69		28.59	45.34	0.00	0.000	0.000
11/30/2009	5.86	15.38	2.63		28.76	45.80	0.00	0.000	0.000
12/31/2009	5.43	15.03	2.77		28.93	46.26	0.00	0.000	0.000
1/31/2010	5.38	14.91	2.77		29.10	46.73	0.00	0.000	0.000
2/28/2010	5.30	15.01	2.83		29.25	47.15	0.00	0.000	0.000
3/31/2010	5.39	15.49	2.87		29.41	47.63	0.00	0.000	0.000
4/30/2010	5.48	15.62	2.85		29.58	48.09	0.00	0.000	0.000
5/31/2010	5.49	15.51	2.83		29.75	48.58	0.00	0.000	0.000
6/30/2010	5.22	14.86	2.85		29.91	49.02	0.00	0.000	0.000
7/31/2010	5.02	14.54	2.90		30.06	49.47	0.00	0.000	0.000
8/31/2010	4.90	13.88	2.83		30.21	49.90	0.00	0.000	0.000
9/30/2010	4.65	14.29	3.07		30.35	50.33	0.00	0.000	0.000
10/31/2010	4.32	12.11	2.80		30.49	50.71	0.00	0.000	0.000
11/30/2010	4.23	12.29	2.90		30.61	51.07	0.00	0.000	0.000
12/31/2010	4.18	10.99	2.63		30.74	51.42	0.00	0.000	0.000
1/31/2011	4.05	10.59	2.62		30.87	51.74	0.00	0.000	0.000
2/28/2011	3.97	10.55	2.65		30.98	52.04	0.00	0.000	0.000
3/31/2011	3.80	10.05	2.65		31.10	52.35	0.00	0.000	0.000
4/30/2011	3.63	9.17	2.53		31.21	52.63	0.00	0.000	0.000
5/31/2011	3.58	11.15	3.12		31.32	52.97	0.00	0.000	0.000
6/30/2011	2.46	8.50	3.46		31.39	53.23	0.00	0.000	0.000
7/31/2011	4.21	12.41	2.95		31.52	53.61	0.00	0.000	0.000
8/31/2011	4.14	12.17	2.94		31.65	53.99	0.00	0.000	0.000
9/30/2011	3.76	11.75	3.12		31.76	54.34	0.00	0.000	0.000
10/31/2011	3.91	9.87	2.52		31.88	54.65	0.00	0.000	0.000
11/30/2011	5.74	6.22	1.08		32.06	54.83	0.00	0.000	0.000
12/31/2011	5.09	7.27	1.43		32.21	55.06	0.00	0.000	0.000
1/31/2012	5.47	11.18	2.04		32.38	55.40	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
2/29/2012	5.07	13.78	2.72		32.53	55.80	0.00	0.000	0.000
3/31/2012	4.81	13.40	2.78		32.68	56.22	0.00	0.000	0.000
4/30/2012	5.35	12.97	2.43		32.84	56.61	0.00	0.000	0.000
5/31/2012	4.24	16.29	3.84		32.97	57.11	0.00	0.000	0.000
6/30/2012	4.24	16.49	3.89		33.10	57.61	0.00	0.000	0.000
7/31/2012	3.77	16.26	4.31		33.22	58.11	0.00	0.000	0.000
8/31/2012	3.33	15.25	4.58		33.32	58.59	0.00	0.000	0.000
9/30/2012	3.00	16.00	5.33		33.41	59.07	0.00	0.000	0.000
10/31/2012	2.58	15.48	6.00		33.49	59.55	0.00	0.000	0.000
11/30/2012	2.66	15.66	5.89		33.57	60.02	0.00	0.000	0.000
12/31/2012	2.58	15.48	6.00		33.65	60.50	0.00	0.000	0.000
1/31/2013	2.30	15.58	6.77		33.72	60.98	0.00	0.000	0.000
2/28/2013	1.97	13.43	6.80		33.78	61.35	0.00	0.000	0.000
3/31/2013	1.92	11.73	6.12		33.83	61.72	0.00	0.000	0.000
4/30/2013	1.99	14.17	7.14		33.89	62.14	0.00	0.000	0.000
5/31/2013	1.80	15.97	8.89		33.95	62.64	0.00	0.000	0.000
6/30/2013	1.79	13.94	7.76		34.00	63.06	0.00	0.000	0.000
7/31/2013	1.62	15.09	9.29		34.05	63.52	0.00	0.000	0.000
8/31/2013	1.17	11.55	9.84		34.09	63.88	0.00	0.000	0.000
9/30/2013	0.55	7.38	13.35		34.11	64.10	0.00	0.000	0.000
10/31/2013	0.74	8.48	11.43		34.13	64.37	0.00	0.000	0.000
11/30/2013	1.12	11.18	9.98		34.16	64.70	0.00	0.000	0.000
12/31/2013	0.95	9.61	10.16		34.19	65.00	0.00	0.000	0.000
1/31/2014	0.55	6.45	11.64		34.21	65.20	0.00	0.000	0.000
2/28/2014	0.44	7.16	16.20	2.18	34.22	65.40	0.06	0.296	0.001
3/31/2014	0.64	8.35	13.08	13.77	34.24	65.66	0.49	1.591	0.006
4/30/2014	0.65	8.67	13.35	19.40	34.26	65.92	1.07	2.159	0.013
5/31/2014	0.67	9.04	13.51	19.42	34.28	66.20	1.67	2.074	0.020
6/30/2014	0.72	9.74	13.58	19.03	34.30	66.49	2.24	1.887	0.027
7/31/2014	0.46	5.82	12.68	14.06	34.32	66.67	2.68	2.328	0.032
8/31/2014	0.86	10.83	12.65	23.61	34.34	67.01	3.41	2.101	0.041
9/30/2014	0.80	9.74	12.13	25.93	34.37	67.30	4.19	2.561	0.050
10/31/2014	0.81	9.12	11.23	41.65	34.39	67.58	5.48	4.379	0.065
11/30/2014	0.95	10.51	11.08	43.47	34.42	67.90	6.78	3.966	0.080
12/31/2014	2.31	14.19	6.14	38.29	34.49	68.34	7.97	2.503	0.094

Pressure Survey Report

Tundra Oil & Gas Ltd.
TUNDRA PIERSON HZNTL
101/14-15-003-28W1/0
Licence No.: 6588
March 25 - 31, 2008

Survey by:



Report & Gauges
provided by:



Phone: (403) 720-3444



Survey Information:

Company Name	Tundra Oil & Gas Ltd.
Address	Virden, MB
Well Name	Tundra Pierson HZNTL
Location	101/14-15-003-28W1/0
Licence No.	6588
Producing Zone	MC3a
Status	Oil Well
Test Type	Bottom Hole Build-up
Open Hole	Leg 1 Sidetrack
	Leg 2
	MPP
	Pressure @ MPP
	Producing Through
	Casing Depth
	PBTD
	TD
	KB Elevation
	CF Elevation
	Tubing Pressure Before Survey
	Tubing Pressure After Survey
	Casing Pressure Before Survey
	Casing Pressure After Survey
	Survey Start Date yyyy/mm/dd
	Survey Finish Date yyyy/mm/dd
	Last Stable Temperature
	Last Stable Pressure
	Surface Temperature

	Top Gauge	Bottom Gauge
Serial Number	40121	40107
Calibration Date	2007/07/27	2007/09/12
Pressure Range	20.8 MPa	20.8 MPa
Survey Set Depth	987.5 mKB (949.6 mTVD)	988.0 mKB (949.8 mTVD)

kPaG to kPaA Conversion Factor	93 kPa
Wireline Work By	Bart [REDACTED] Quality Wireline, Estevan, [REDACTED]
Report Prepared By	Vida F [REDACTED] RTM, Calgary, [REDACTED]
Gauges Manufactured By	RTM Inc., Calgary, AB, 403-720-3444

Sequence of Events

Tundra Oil & Gas Ltd.
Tundra Pierson HZNTL
101/14-15-003-28W1/0

Date yyyy/mm/dd	Time hh:mm	Event
2008/03/25	17:30	Batteries connected to gauges 40107 and 40121 for extended test
2008/03/25	19:15	Gauges on bottom @ 988 metres (949.8 mTVD)
2008/03/25	19:21	Build-up started
2008/03/31	07:14	Gauges off bottom

Comments:

Pressure at MPP is calculated based on water gradient of 10 and the last stable pressure.

Unless otherwise specified:

Pressures are presented in absolute. Depths are measured from KB.



Wireline work by Quality Wireline, Estevan, Saskatchewan



Reports prepared by RTM Inc., Calgary, Alberta



Gauges manufactured by RTM Inc., Calgary, Alberta

RTM Inc.
Calgary, Alberta

PRESSURE SURVEY REPORT

Build-up Data



Tundra Oil & Gas Ltd.
 101/14-15-003-28W1/00
 Start Test Date: 2008/03/25
 Final Test Date: 2008/03/31

Tundra Pierson HZNTL
 Formation: MC3a

	Date	Clk Time	Delta Time	Bottom Gauge Pres.	Bottom Gauge Temp.	Top Gauge Pres.	Top Gauge Temp.	Diff. G1 - G2
	yyyy/mm/dd	hh:mm:ss	hr	kPa(a)	°C	kPa(a)	°C	kPa
1	2008/03/25	17:30:00	0.0000	105.76	11.30	108.99	14.13	-3.23
2	2008/03/25	18:40:00	1.1667	5888.82	30.10	5995.05	30.30	-106.23
3	2008/03/25	19:50:00	2.3333	7738.68	38.76	7743.40	38.79	-4.72
4	2008/03/25	21:00:00	3.5000	7340.73	39.05	7345.90	39.05	-5.17
5	2008/03/25	22:10:00	4.6667	7141.29	39.18	7145.26	39.18	-3.97
6	2008/03/25	23:20:00	5.8333	7004.72	39.26	7008.51	39.27	-3.79
7	2008/03/26	00:30:00	7.0000	6918.40	39.33	6921.70	39.34	-3.30
8	2008/03/26	01:40:00	8.1667	6827.49	39.38	6831.03	39.39	-3.54
9	2008/03/26	02:50:00	9.3333	6749.49	39.43	6753.03	39.44	-3.53
10	2008/03/26	04:00:00	10.5000	6680.42	39.48	6684.15	39.48	-3.73
11	2008/03/26	05:10:00	11.6667	6618.49	39.51	6622.20	39.52	-3.71
12	2008/03/26	06:20:00	12.8333	6561.25	39.55	6564.84	39.56	-3.58
13	2008/03/26	07:30:00	14.0000	6507.42	39.58	6511.07	39.59	-3.65
14	2008/03/26	08:40:00	15.1667	6455.61	39.61	6459.04	39.61	-3.43
15	2008/03/26	09:50:00	16.3333	6406.84	39.64	6410.46	39.64	-3.62
16	2008/03/26	11:00:00	17.5000	6360.99	39.66	6364.62	39.67	-3.62
17	2008/03/26	12:10:00	18.6667	6315.33	39.68	6318.85	39.69	-3.52
18	2008/03/26	13:20:00	19.8333	6272.23	39.71	6275.85	39.71	-3.62
19	2008/03/26	14:30:00	21.0000	6229.43	39.72	6232.99	39.73	-3.56
20	2008/03/26	15:40:00	22.1667	6188.31	39.74	6191.93	39.75	-3.62
21	2008/03/26	16:50:00	23.3333	6148.88	39.76	6152.60	39.77	-3.72
22	2008/03/26	18:00:00	24.5000	6110.19	39.78	6113.90	39.78	-3.70
23	2008/03/26	19:10:00	25.6667	6072.29	39.79	6075.86	39.80	-3.57
24	2008/03/26	20:20:00	26.8333	6035.60	39.80	6039.24	39.81	-3.64
25	2008/03/26	21:30:00	28.0000	5999.97	39.82	6003.55	39.83	-3.58
26	2008/03/26	22:40:00	29.1667	5965.80	39.84	5969.39	39.84	-3.60
27	2008/03/26	23:50:00	30.3333	5931.50	39.85	5935.24	39.85	-3.74
28	2008/03/27	01:00:00	31.5000	5898.95	39.86	5902.79	39.87	-3.85
29	2008/03/27	02:10:00	32.6667	5867.27	39.87	5871.07	39.88	-3.80
30	2008/03/27	03:20:00	33.8333	5835.54	39.88	5839.12	39.89	-3.58
31	2008/03/27	04:30:00	35.0000	5804.07	39.89	5807.46	39.90	-3.40
32	2008/03/27	05:40:00	36.1667	5779.28	39.91	5783.00	39.91	-3.72
33	2008/03/27	06:50:00	37.3333	5751.29	39.92	5755.02	39.92	-3.73
34	2008/03/27	08:00:00	38.5000	5721.93	39.93	5725.57	39.93	-3.64
35	2008/03/27	09:10:00	39.6667	5693.08	39.94	5696.76	39.95	-3.67
36	2008/03/27	10:20:00	40.8333	5667.29	39.94	5671.07	39.95	-3.77
37	2008/03/27	11:30:00	42.0000	5639.97	39.95	5643.71	39.96	-3.73
38	2008/03/27	12:40:00	43.1667	5612.17	39.96	5615.71	39.97	-3.54
39	2008/03/27	13:50:00	44.3333	5585.86	39.97	5589.37	39.98	-3.51

Bottom Gauge Serial Number: 40107 Start Date: 2008/03/25 17:30:00 Run Depth: 949.80
 Top Gauge Serial Number: 40121 Start Date: 2008/03/25 17:30:00 Run Depth: 949.60
 Print Filter: Print every 140th point

Tundra Oil & Gas Ltd.
 101/14-15-003-28W1/00
 Start Test Date: 2008/03/25
 Final Test Date: 2008/03/31

Tundra Pierson HZNTL
 Formation: MC3a

	Date	Clk Time	Delta Time	Bottom Gauge Pres.	Bottom Gauge Temp.	Top Gauge Pres.	Top Gauge Temp.	Diff. G1 - G2
	yyyy/mm/dd	hh:mm:ss	hr	kPa(a)	°C	kPa(a)	°C	kPa
40	2008/03/27	15:00:00	45.5000	5560.19	39.98	5563.53	39.99	-3.34
41	2008/03/27	16:10:00	46.6667	5535.11	39.99	5538.55	39.99	-3.44
42	2008/03/27	17:20:00	47.8333	5510.37	39.99	5514.10	40.00	-3.73
43	2008/03/27	18:30:00	49.0000	5486.71	40.00	5490.22	40.01	-3.51
44	2008/03/27	19:40:00	50.1667	5463.16	40.00	5466.76	40.02	-3.60
45	2008/03/27	20:50:00	51.3333	5440.56	40.01	5444.24	40.02	-3.68
46	2008/03/27	22:00:00	52.5000	5418.49	40.02	5422.03	40.03	-3.54
47	2008/03/27	23:10:00	53.6667	5397.07	40.02	5400.55	40.04	-3.48
48	2008/03/28	00:20:00	54.8333	5376.03	40.03	5379.71	40.04	-3.69
49	2008/03/28	01:30:00	56.0000	5356.30	40.04	5359.68	40.05	-3.39
50	2008/03/28	02:40:00	57.1667	5337.30	40.04	5340.76	40.05	-3.46
51	2008/03/28	03:50:00	58.3333	5319.19	40.05	5322.96	40.06	-3.77
52	2008/03/28	05:00:00	59.5000	5301.70	40.05	5305.22	40.06	-3.52
53	2008/03/28	06:10:00	60.6667	5284.59	40.06	5288.08	40.07	-3.50
54	2008/03/28	07:20:00	61.8333	5268.17	40.06	5271.62	40.07	-3.45
55	2008/03/28	08:30:00	63.0000	5252.58	40.07	5255.95	40.08	-3.37
56	2008/03/28	09:40:00	64.1667	5237.29	40.07	5240.86	40.08	-3.57
57	2008/03/28	10:50:00	65.3333	5222.99	40.08	5226.49	40.09	-3.50
58	2008/03/28	12:00:00	66.5000	5208.24	40.08	5211.83	40.09	-3.59
59	2008/03/28	13:10:00	67.6667	5194.62	40.09	5198.06	40.10	-3.43
60	2008/03/28	14:20:00	68.8333	5181.44	40.09	5185.21	40.10	-3.77
61	2008/03/28	15:30:00	70.0000	5168.98	40.10	5172.54	40.10	-3.56
62	2008/03/28	16:40:00	71.1667	5156.83	40.10	5160.23	40.11	-3.40
63	2008/03/28	17:50:00	72.3333	5145.37	40.10	5148.83	40.11	-3.47
64	2008/03/28	19:00:00	73.5000	5133.27	40.11	5136.69	40.11	-3.42
65	2008/03/28	20:10:00	74.6667	5121.73	40.11	5125.27	40.12	-3.53
66	2008/03/28	21:20:00	75.8333	5110.69	40.12	5114.30	40.12	-3.61
67	2008/03/28	22:30:00	77.0000	5099.69	40.12	5103.20	40.13	-3.52
68	2008/03/28	23:40:00	78.1667	5089.20	40.12	5092.64	40.13	-3.43
69	2008/03/29	00:50:00	79.3333	5078.66	40.13	5082.12	40.13	-3.46
70	2008/03/29	02:00:00	80.5000	5068.24	40.13	5071.63	40.14	-3.39
71	2008/03/29	03:10:00	81.6667	5058.18	40.13	5061.72	40.14	-3.55
72	2008/03/29	04:20:00	82.8333	5048.66	40.14	5052.20	40.14	-3.54
73	2008/03/29	05:30:00	84.0000	5039.02	40.14	5042.57	40.15	-3.55
74	2008/03/29	06:40:00	85.1667	5029.62	40.14	5033.26	40.15	-3.64
75	2008/03/29	07:50:00	86.3333	5020.30	40.15	5023.76	40.16	-3.46
76	2008/03/29	09:00:00	87.5000	5011.42	40.15	5014.96	40.16	-3.54
77	2008/03/29	10:10:00	88.6667	5002.97	40.15	5006.50	40.16	-3.53
78	2008/03/29	11:20:00	89.8333	4994.68	40.16	4998.22	40.16	-3.53

Bottom Gauge Serial Number: 40107 Start Date: 2008/03/25 17:30:00 Run Depth: 949.80
 Top Gauge Serial Number: 40121 Start Date: 2008/03/25 17:30:00 Run Depth: 949.60
 Print Filter: Print every 140th point

Tundra Oil & Gas Ltd.
101/14-15-003-28W1/00
Start Test Date: 2008/03/25
Final Test Date: 2008/03/31

Tundra Pierson HZNTL
Formation: MC3a

	Date	Clk Time	Delta Time	Bottom Gauge Pres.	Bottom Gauge Temp.	Top Gauge Pres.	Top Gauge Temp.	Diff. G1 - G2
	yyyy/mm/dd	hh:mm:ss	hr	kPa(a)	°C	kPa(a)	°C	kPa
79	2008/03/29	12:30:00	91.0000	4986.31	40.16	4989.85	40.17	-3.54
80	2008/03/29	13:40:00	92.1667	4978.55	40.16	4982.22	40.17	-3.67
81	2008/03/29	14:50:00	93.3333	4970.54	40.17	4973.86	40.17	-3.33
82	2008/03/29	16:00:00	94.5000	4963.11	40.17	4966.44	40.18	-3.33
83	2008/03/29	17:10:00	95.6667	4955.50	40.17	4959.03	40.18	-3.54
84	2008/03/29	18:20:00	96.8333	4948.07	40.17	4951.56	40.18	-3.49
85	2008/03/29	19:30:00	98.0000	4941.04	40.18	4944.62	40.18	-3.57
86	2008/03/29	20:40:00	99.1667	4934.10	40.18	4937.43	40.19	-3.32
87	2008/03/29	21:50:00	100.3333	4926.99	40.18	4930.32	40.19	-3.33
88	2008/03/29	23:00:00	101.5000	4920.29	40.19	4923.90	40.19	-3.61
89	2008/03/30	00:10:00	102.6667	4913.54	40.19	4916.92	40.20	-3.38
90	2008/03/30	01:20:00	103.8333	4907.06	40.19	4910.34	40.20	-3.27
91	2008/03/30	02:30:00	105.0000	4900.79	40.19	4904.18	40.20	-3.40
92	2008/03/30	03:40:00	106.1667	4894.21	40.20	4897.69	40.20	-3.48
93	2008/03/30	04:50:00	107.3333	4887.79	40.20	4891.41	40.21	-3.62
94	2008/03/30	06:00:00	108.5000	4881.71	40.20	4885.05	40.21	-3.34
95	2008/03/30	07:10:00	109.6667	4878.54	40.20	4881.94	40.21	-3.40
96	2008/03/30	08:20:00	110.8333	4872.43	40.21	4875.91	40.22	-3.47
97	2008/03/30	09:30:00	112.0000	4866.66	40.21	4869.97	40.22	-3.30
98	2008/03/30	10:40:00	113.1667	4860.74	40.21	4864.25	40.22	-3.51
99	2008/03/30	11:50:00	114.3333	4854.78	40.21	4858.15	40.22	-3.37
100	2008/03/30	13:00:00	115.5000	4849.18	40.22	4852.64	40.23	-3.46
101	2008/03/30	14:10:00	116.6667	4843.27	40.22	4846.65	40.23	-3.39
102	2008/03/30	15:20:00	117.8333	4837.80	40.22	4841.33	40.23	-3.53
103	2008/03/30	16:30:00	119.0000	4832.15	40.22	4835.72	40.23	-3.57
104	2008/03/30	17:40:00	120.1667	4826.97	40.23	4830.50	40.24	-3.54
105	2008/03/30	18:50:00	121.3333	4821.51	40.23	4824.92	40.24	-3.40
106	2008/03/30	20:00:00	122.5000	4816.56	40.23	4819.99	40.24	-3.43
107	2008/03/30	21:10:00	123.6667	4811.43	40.23	4814.82	40.24	-3.39
108	2008/03/30	22:20:00	124.8333	4806.59	40.24	4810.14	40.24	-3.55
109	2008/03/30	23:30:00	126.0000	4801.73	40.24	4805.05	40.25	-3.32
110	2008/03/31	00:40:00	127.1667	4797.08	40.24	4800.65	40.25	-3.56
111	2008/03/31	01:50:00	128.3333	4792.65	40.24	4796.16	40.25	-3.52
112	2008/03/31	03:00:00	129.5000	4788.00	40.24	4791.48	40.25	-3.49
113	2008/03/31	04:10:00	130.6667	4783.36	40.25	4786.82	40.26	-3.45
114	2008/03/31	05:20:00	131.8333	4779.25	40.25	4782.72	40.26	-3.47
115	2008/03/31	06:30:00	133.0000	4774.75	40.25	4778.32	40.26	-3.57
116	2008/03/31	07:40:00	134.1667	6028.82	35.69	5903.27	34.92	125.55

Bottom Gauge Serial Number: 40107 Start Date: 2008/03/25 17:30:00 Run Depth: 949.80
Top Gauge Serial Number: 40121 Start Date: 2008/03/25 17:30:00 Run Depth: 949.60
Print Filter: Print every 140th point

PRESSURE SURVEY REPORT

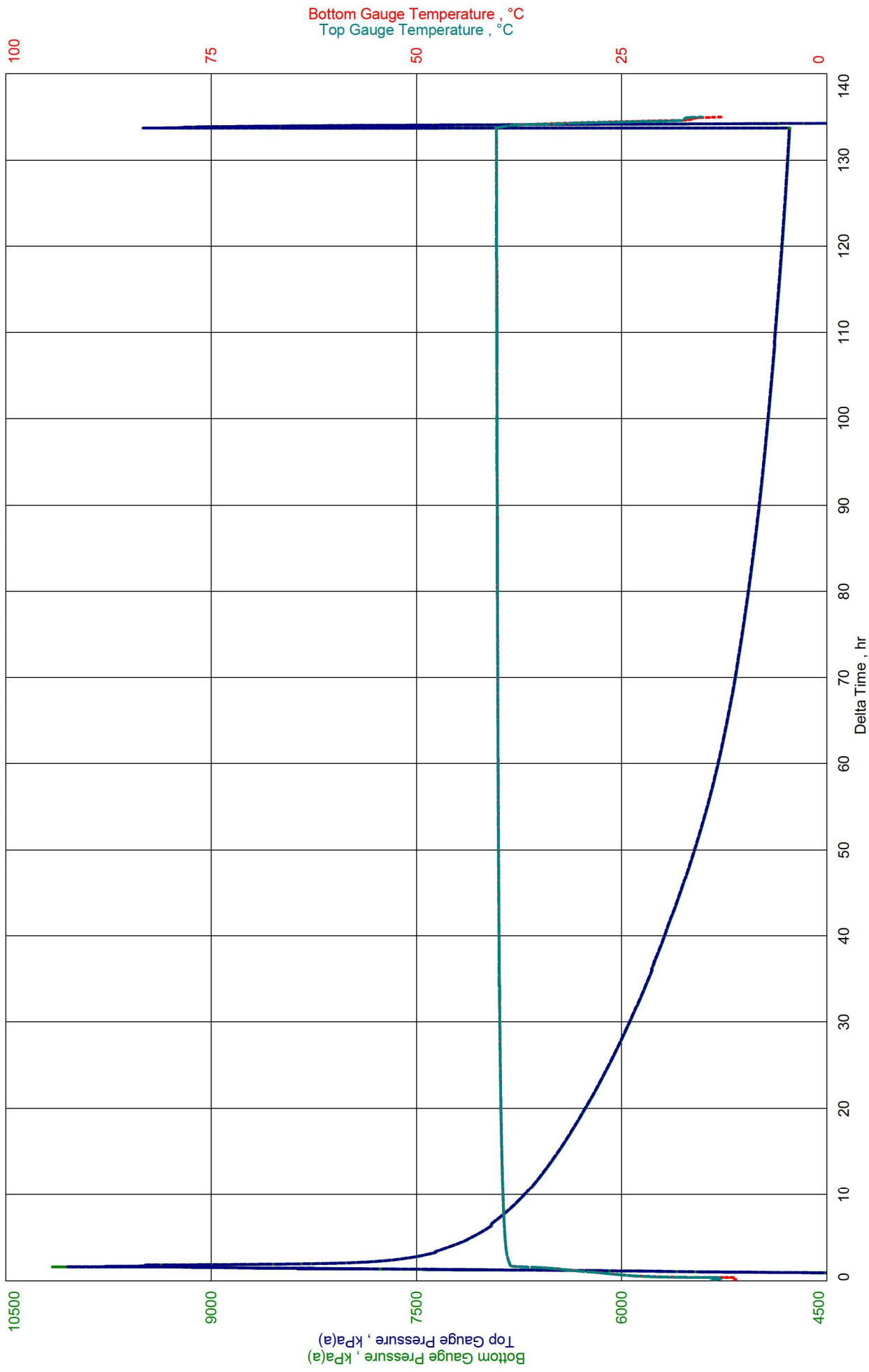
Plots



Tundra Oil & Gas Ltd.
101/14-15-003-28W1/00
Start Test Date: 2008/03/25
Final Test Date: 2008/03/31

Tundra Pierson HZNTL
Formation: MC3a

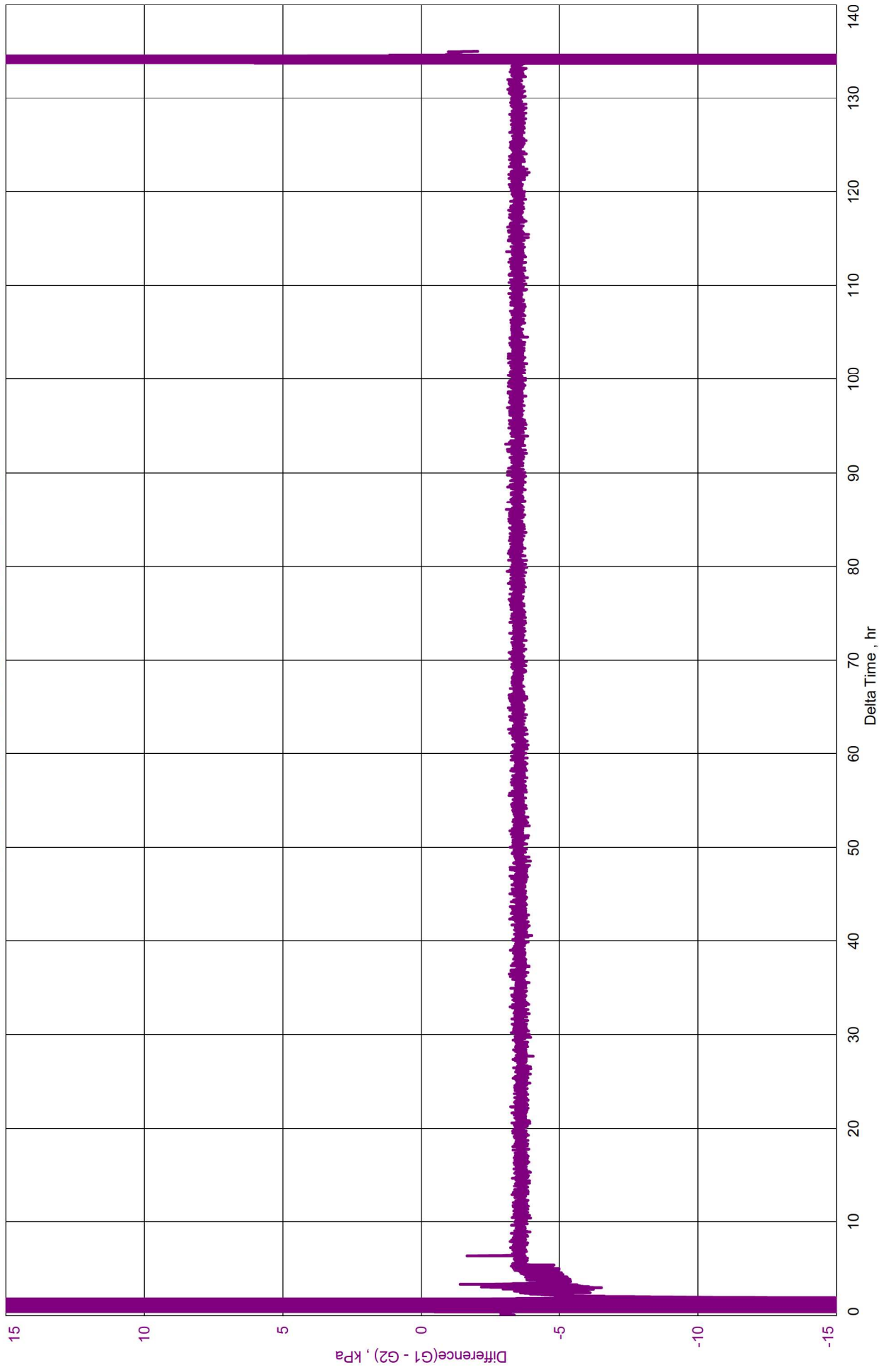
Tundra Pierson HZNTL



Tundra Oil & Gas Ltd.
101/14-15-003-28W1/00
Start Test Date: 2008/03/25
Final Test Date: 2008/03/31

Tundra Pierson HZNTL
Formation: MC3a

Tundra Pierson HZNTL



Pressure Survey Report Rev. 1

Tundra Oil & Gas Ltd.
TUNDRA PIERSON HZ
(15-18) 8-19-3-28W1
Licence No.: 6348
July 18 - 24, 2007

Survey by:



Report
prepared by:



Phone: (403) 720-3444



Survey Information:

Company Name		Tundra Oil & Gas Ltd.
Address		Estevan, SK
Well Name		Tundra Pierson HZ
Location		(15-18) 8-19-3-28W1
Producing Zone		MC3a
Status		Oil Well (Completion)
Test Type		Bottom Hole Build-up, Static Gradient
Open Hole	Leg 1	1073.0 – 2169.0 mKB (983.9 – 985.4 mTVD)
	Leg 2	1182.0 – 2026.0 mKB (986.2 – 988.1 mTVD)
MPP		1675.5 mKB (986.0 mTVD)
Pressure @ MPP		8,351 kPaA (Calculated) See Comments
Producing Through		177.8 mm Casing
Casing Depth		1073.0 mKB
PBSD		Not Available
TD	Leg 1	2169.0 mKB
	Leg 2	2026.0 mKB
KB Elevation		474.40 m
CF Elevation		470.38 m
Tubing Pressure Before Survey		Not Applicable
Tubing Pressure After Survey		Not Applicable
Casing Pressure Before Survey		0 kPaG
Casing Pressure After Survey		0 kPaG
Survey Start Date yyyy/mm/dd		2007/07/18
Survey Finish Date yyyy/mm/dd		2007/07/24
Last Stable Temperature		36.7 ° C
Last Stable Pressure		6,621 kPaA
Surface Temperature		Not Available

	Top Gauge	Bottom Gauge
Serial Number	30113	76005
Calibration Date	2006/11/03	2006/10/06
Pressure Range	20.8 MPa	20.8 MPa
Survey Set Depth	812.3 mKB (812.2 mTVD)	813.0 mKB (812.9 mTVD)

kPaG to kPaA Conversion Factor	93 kPa
Wireline Work By	Mike [REDACTED] Quality Wireline, Estevan, [REDACTED]
Report Prepared By	Vida [REDACTED] RTM, Calgary, [REDACTED]
Gauges Manufactured By	Spartek Systems, Sylvan Lake, 403-887-2443

Sequence of Events

Tundra Oil & Gas Ltd.
Tundra Pierson HZ
(15-18)8-19-3-28W1

Date yyyy/mm/dd	Time hh:mm	Event
2007/07/18	02:30	Batteries connected to gauges 30113 and 76005 for extended test
2007/07/18	03:44	Gauges on bottom @ 813 metres (812.9 mTVD)
2007/07/18	03:52	Build-up started
2007/07/24	10:45	Gauges off bottom, start to 716.5 metres (716.4 mTVD)
2007/07/24	11:06	Stop at 716.5 metres
2007/07/24	11:17	Start to 620 metres (619.9 mTVD)
2007/07/24	11:24	Stop at 620 metres
2007/07/24	11:34	Start to 524 metres (523.9 mTVD)
2007/07/24	11:40	Stop at 524 metres
2007/07/24	11:50	Start to 428 metres (427.9 mTVD)
2007/07/24	11:57	Stop at 428 metres
2007/07/24	12:07	Start to 331.5 metres
2007/07/24	12:13	Stop at 331.5 metres
2007/07/24	12:23	Start to 236 metres
2007/07/24	12:29	Stop at 236 metres
2007/07/24	12:39	Start to 140 metres
2007/07/24	12:44	Stop at 140 metres
2007/07/24	12:54	Start to surface
2007/07/24	13:01	Gauges on surface

Comments:

These gauges were run and pulled with pipe below a bridge plug. Pressure at MPP is based on gradient of 10 for fresh water and the last stable pressure.

Unless otherwise specified:

Pressures are presented in absolute. Depths are measured from KB. Fluid level @ approximately 146 metres.



Wireline work by Quality Wireline, Estevan, Saskatchewan



Reports prepared by RTM Inc., Calgary, Alberta



Gauges manufactured by Spartek Systems, Sylvan Lake, Alberta

RTM Inc.
Calgary, Alberta

PRESSURE SURVEY REPORT

Build-up Data



Tundra Oil & Gas Ltd.
 (15-18)8-19-3-28W1
 Start Test Date: 2007/07/18
 Final Test Date: 2007/07/24

Tundra Pierson HZ
 Formation: MC3a

	Date	Clk Time	Delta Time	Bottom Gauge Pres.	Bottom Gauge Temp.	Top Gauge Pres.	Top Gauge Temp.	Diff. G1 - G2
	yyyy/mm/dd	hh:mm:ss	hr	kPa(a)	°C	kPa(a)	°C	kPa
1	2007/07/18	02:30:00	0.0000	100.66	20.02	104.03	18.96	-3.37
2	2007/07/18	03:50:00	1.3333	7648.17	35.42	7644.46	33.86	3.71
3	2007/07/18	05:10:00	2.6667	7178.98	36.67	7174.60	36.15	4.38
4	2007/07/18	06:30:00	4.0000	7114.81	36.98	7110.31	36.46	4.51
5	2007/07/18	07:50:00	5.3333	7076.74	37.17	7072.11	36.65	4.63
6	2007/07/18	09:10:00	6.6667	7048.78	37.30	7044.06	36.78	4.72
7	2007/07/18	10:30:00	8.0000	7026.25	37.39	7021.49	36.87	4.77
8	2007/07/18	11:50:00	9.3333	7006.61	37.45	7001.72	36.94	4.89
9	2007/07/18	13:10:00	10.6667	6989.71	37.49	6984.80	36.98	4.91
10	2007/07/18	14:30:00	12.0000	6973.94	37.51	6968.96	37.01	4.98
11	2007/07/18	15:50:00	13.3333	6959.65	37.53	6954.71	37.03	4.95
12	2007/07/18	17:10:00	14.6667	6946.64	37.54	6941.44	37.03	5.21
13	2007/07/18	18:30:00	16.0000	6934.26	37.55	6929.36	37.04	4.89
14	2007/07/18	19:50:00	17.3333	6923.13	37.55	6918.07	37.04	5.06
15	2007/07/18	21:10:00	18.6667	6913.09	37.55	6908.07	37.05	5.02
16	2007/07/18	22:30:00	20.0000	6903.81	37.55	6898.71	37.04	5.10
17	2007/07/18	23:50:00	21.3333	6895.06	37.54	6889.96	37.04	5.10
18	2007/07/19	01:10:00	22.6667	6886.88	37.53	6881.85	37.04	5.02
19	2007/07/19	02:30:00	24.0000	6879.21	37.52	6874.08	37.02	5.13
20	2007/07/19	03:50:00	25.3333	6871.81	37.51	6866.64	37.01	5.17
21	2007/07/19	05:10:00	26.6667	6865.09	37.50	6860.15	37.01	4.94
22	2007/07/19	06:30:00	28.0000	6859.08	37.49	6853.99	36.99	5.09
23	2007/07/19	07:50:00	29.3333	6853.38	37.48	6848.23	36.98	5.15
24	2007/07/19	09:10:00	30.6667	6848.20	37.47	6843.12	36.97	5.08
25	2007/07/19	10:30:00	32.0000	6843.36	37.45	6838.19	36.96	5.16
26	2007/07/19	11:50:00	33.3333	6838.50	37.44	6833.35	36.95	5.15
27	2007/07/19	13:10:00	34.6667	6833.47	37.43	6828.18	36.94	5.29
28	2007/07/19	14:30:00	36.0000	6828.64	37.41	6823.49	36.92	5.15
29	2007/07/19	15:50:00	37.3333	6824.38	37.40	6819.20	36.91	5.19
30	2007/07/19	17:10:00	38.6667	6820.09	37.39	6814.89	36.90	5.20
31	2007/07/19	18:30:00	40.0000	6815.93	37.38	6810.71	36.88	5.21
32	2007/07/19	19:50:00	41.3333	6811.98	37.36	6806.69	36.87	5.30
33	2007/07/19	21:10:00	42.6667	6808.14	37.35	6802.80	36.86	5.34
34	2007/07/19	22:30:00	44.0000	6804.28	37.34	6799.02	36.85	5.26
35	2007/07/19	23:50:00	45.3333	6800.50	37.32	6795.24	36.84	5.26
36	2007/07/20	01:10:00	46.6667	6796.81	37.31	6791.57	36.83	5.24
37	2007/07/20	02:30:00	48.0000	6793.35	37.30	6787.88	36.81	5.47
38	2007/07/20	03:50:00	49.3333	6789.48	37.29	6784.21	36.80	5.28
39	2007/07/20	05:10:00	50.6667	6785.49	37.28	6780.24	36.79	5.24

Bottom Gauge Serial Number: 76005 Start Date: 2007/07/18 02:30:00 Run Depth: 812.90
 Top Gauge Serial Number: 30113 Start Date: 2007/07/18 02:30:00 Run Depth: 812.20
 Print Filter: Print every 160th point

Tundra Oil & Gas Ltd.
 (15-18)8-19-3-28W1
 Start Test Date: 2007/07/18
 Final Test Date: 2007/07/24

Tundra Pierson HZ
 Formation: MC3a

	Date	Clk Time	Delta Time	Bottom Gauge Pres.	Bottom Gauge Temp.	Top Gauge Pres.	Top Gauge Temp.	Diff. G1 - G2 kPa
	yyyy/mm/dd	hh:mm:ss	hr	kPa(a)	°C	kPa(a)	°C	kPa
40	2007/07/20	06:30:00	52.0000	6782.18	37.26	6776.83	36.77	5.34
41	2007/07/20	07:50:00	53.3333	6778.64	37.25	6773.20	36.76	5.43
42	2007/07/20	09:10:00	54.6667	6774.98	37.24	6769.64	36.75	5.34
43	2007/07/20	10:30:00	56.0000	6771.55	37.23	6766.13	36.74	5.42
44	2007/07/20	11:50:00	57.3333	6768.26	37.22	6762.90	36.73	5.36
45	2007/07/20	13:10:00	58.6667	6765.28	37.21	6759.76	36.71	5.53
46	2007/07/20	14:30:00	60.0000	6761.94	37.20	6756.69	36.70	5.24
47	2007/07/20	15:50:00	61.3333	6758.96	37.18	6753.57	36.70	5.39
48	2007/07/20	17:10:00	62.6667	6755.92	37.17	6750.59	36.69	5.33
49	2007/07/20	18:30:00	64.0000	6752.99	37.16	6747.57	36.68	5.42
50	2007/07/20	19:50:00	65.3333	6750.11	37.15	6744.78	36.67	5.33
51	2007/07/20	21:10:00	66.6667	6747.32	37.14	6741.88	36.66	5.44
52	2007/07/20	22:30:00	68.0000	6744.14	37.13	6738.75	36.65	5.39
53	2007/07/20	23:50:00	69.3333	6741.40	37.12	6736.01	36.64	5.39
54	2007/07/21	01:10:00	70.6667	6738.55	37.11	6733.14	36.63	5.40
55	2007/07/21	02:30:00	72.0000	6735.69	37.10	6730.26	36.62	5.43
56	2007/07/21	03:50:00	73.3333	6732.90	37.09	6727.48	36.61	5.43
57	2007/07/21	05:10:00	74.6667	6730.11	37.08	6724.67	36.60	5.45
58	2007/07/21	06:30:00	76.0000	6727.47	37.07	6721.96	36.59	5.51
59	2007/07/21	07:50:00	77.3333	6724.83	37.06	6719.36	36.59	5.47
60	2007/07/21	09:10:00	78.6667	6722.17	37.05	6716.76	36.58	5.40
61	2007/07/21	10:30:00	80.0000	6719.68	37.04	6714.24	36.57	5.44
62	2007/07/21	11:50:00	81.3333	6717.16	37.03	6711.68	36.56	5.48
63	2007/07/21	13:10:00	82.6667	6714.87	37.02	6709.33	36.55	5.54
64	2007/07/21	14:30:00	84.0000	6712.31	37.02	6706.93	36.54	5.39
65	2007/07/21	15:50:00	85.3333	6709.94	37.01	6704.46	36.54	5.48
66	2007/07/21	17:10:00	86.6667	6707.56	37.00	6702.22	36.53	5.33
67	2007/07/21	18:30:00	88.0000	6705.31	36.99	6699.82	36.52	5.49
68	2007/07/21	19:50:00	89.3333	6703.02	36.98	6697.54	36.51	5.47
69	2007/07/21	21:10:00	90.6667	6700.75	36.97	6695.27	36.50	5.49
70	2007/07/21	22:30:00	92.0000	6698.61	36.97	6693.05	36.49	5.56
71	2007/07/21	23:50:00	93.3333	6696.43	36.96	6690.83	36.48	5.60
72	2007/07/22	01:10:00	94.6667	6694.02	36.95	6688.62	36.48	5.41
73	2007/07/22	02:30:00	96.0000	6691.86	36.94	6686.34	36.47	5.52
74	2007/07/22	03:50:00	97.3333	6689.89	36.94	6684.30	36.46	5.59
75	2007/07/22	05:10:00	98.6667	6687.84	36.93	6682.20	36.45	5.64
76	2007/07/22	06:30:00	100.0000	6685.66	36.92	6680.21	36.45	5.45
77	2007/07/22	07:50:00	101.3333	6683.62	36.91	6678.11	36.44	5.51
78	2007/07/22	09:10:00	102.6667	6681.54	36.90	6676.04	36.44	5.50

Bottom Gauge Serial Number: 76005 Start Date: 2007/07/18 02:30:00 Run Depth: 812.90
 Top Gauge Serial Number: 30113 Start Date: 2007/07/18 02:30:00 Run Depth: 812.20
 Print Filter: Print every 160th point

Tundra Oil & Gas Ltd.
 (15-18)8-19-3-28W1
 Start Test Date: 2007/07/18
 Final Test Date: 2007/07/24

Tundra Pierson HZ
 Formation: MC3a

	Date	Clk Time	Delta Time	Bottom Gauge Pres.	Bottom Gauge Temp.	Top Gauge Pres.	Top Gauge Temp.	Diff. G1 - G2
	yyyy/mm/dd	hh:mm:ss	hr	kPa(a)	°C	kPa(a)	°C	kPa
79	2007/07/22	10:30:00	104.0000	6679.63	36.89	6674.16	36.43	5.46
80	2007/07/22	11:50:00	105.3333	6677.66	36.89	6672.19	36.42	5.47
81	2007/07/22	13:10:00	106.6667	6675.76	36.88	6670.23	36.42	5.53
82	2007/07/22	14:30:00	108.0000	6673.93	36.88	6668.39	36.41	5.54
83	2007/07/22	15:50:00	109.3333	6672.13	36.87	6666.57	36.40	5.56
84	2007/07/22	17:10:00	110.6667	6670.19	36.86	6664.61	36.40	5.58
85	2007/07/22	18:30:00	112.0000	6668.43	36.86	6662.77	36.39	5.66
86	2007/07/22	19:50:00	113.3333	6666.69	36.85	6661.10	36.39	5.60
87	2007/07/22	21:10:00	114.6667	6664.82	36.84	6659.27	36.38	5.56
88	2007/07/22	22:30:00	116.0000	6663.03	36.84	6657.49	36.38	5.54
89	2007/07/22	23:50:00	117.3333	6661.30	36.83	6655.73	36.37	5.57
90	2007/07/23	01:10:00	118.6667	6659.50	36.82	6653.99	36.36	5.51
91	2007/07/23	02:30:00	120.0000	6657.86	36.82	6652.26	36.36	5.60
92	2007/07/23	03:50:00	121.3333	6656.09	36.81	6650.48	36.35	5.61
93	2007/07/23	05:10:00	122.6667	6654.35	36.81	6648.82	36.35	5.53
94	2007/07/23	06:30:00	124.0000	6652.61	36.80	6647.12	36.34	5.49
95	2007/07/23	07:50:00	125.3333	6651.05	36.79	6645.50	36.33	5.54
96	2007/07/23	09:10:00	126.6667	6649.39	36.79	6643.73	36.33	5.66
97	2007/07/23	10:30:00	128.0000	6647.74	36.78	6642.19	36.32	5.54
98	2007/07/23	11:50:00	129.3333	6646.27	36.77	6640.64	36.32	5.63
99	2007/07/23	13:10:00	130.6667	6644.56	36.77	6639.12	36.31	5.44
100	2007/07/23	14:30:00	132.0000	6643.26	36.76	6637.60	36.31	5.66
101	2007/07/23	15:50:00	133.3333	6641.69	36.76	6636.07	36.30	5.61
102	2007/07/23	17:10:00	134.6667	6640.12	36.75	6634.62	36.30	5.50
103	2007/07/23	18:30:00	136.0000	6638.77	36.75	6633.15	36.30	5.62
104	2007/07/23	19:50:00	137.3333	6637.22	36.74	6631.61	36.29	5.61
105	2007/07/23	21:10:00	138.6667	6635.75	36.74	6630.22	36.28	5.54
106	2007/07/23	22:30:00	140.0000	6634.23	36.73	6628.63	36.28	5.60
107	2007/07/23	23:50:00	141.3333	6632.76	36.73	6627.17	36.27	5.59
108	2007/07/24	01:10:00	142.6667	6631.26	36.72	6625.66	36.26	5.60
109	2007/07/24	02:30:00	144.0000	6629.89	36.72	6624.34	36.26	5.55
110	2007/07/24	03:50:00	145.3333	6628.54	36.71	6622.85	36.26	5.70
111	2007/07/24	05:10:00	146.6667	6627.05	36.71	6621.41	36.25	5.64
112	2007/07/24	06:30:00	148.0000	6625.54	36.70	6619.91	36.25	5.63
113	2007/07/24	07:50:00	149.3333	6624.14	36.70	6618.47	36.24	5.67
114	2007/07/24	09:10:00	150.6667	6622.69	36.69	6617.04	36.24	5.66
115	2007/07/24	10:30:00	152.0000	6621.23	36.69	6615.73	36.23	5.50
116	2007/07/24	11:50:00	153.3333	3958.74	26.12	3760.19	26.76	198.55
117	2007/07/24	13:10:00	154.6667	101.15	16.11	102.47	17.04	-1.32

Bottom Gauge Serial Number: 76005 Start Date: 2007/07/18 02:30:00 Run Depth: 812.90
 Top Gauge Serial Number: 30113 Start Date: 2007/07/18 02:30:00 Run Depth: 812.20
 Print Filter: Print every 160th point

PRESSURE SURVEY REPORT

Gradient Data



Static Gradient

Tundra Oil & Gas Ltd.
(15-18)8-19-3-28W1
Start Test Date: 2007/07/24
Final Test Date: 2007/07/24

Tundra Pierson HZ
Formation: MC3a

Bottom Gauge

Gauge Serial Number	76005	Gauge Type	Sapphire
Gauge Manufacturer	Spartek	Maximum Recorder Range	20779.00 kPa
Run Depth	812.90 m	Date of Last Calibration	2006/10/16
Gauge Start Date	2007/07/24 10:34:00	Gauge Stop Date	2007/07/24 13:30:00
Date Gauge On Bottom	2007/07/18 03:44:00	Date Gauge Off Bottom	2007/07/24 10:45:00

Test Data

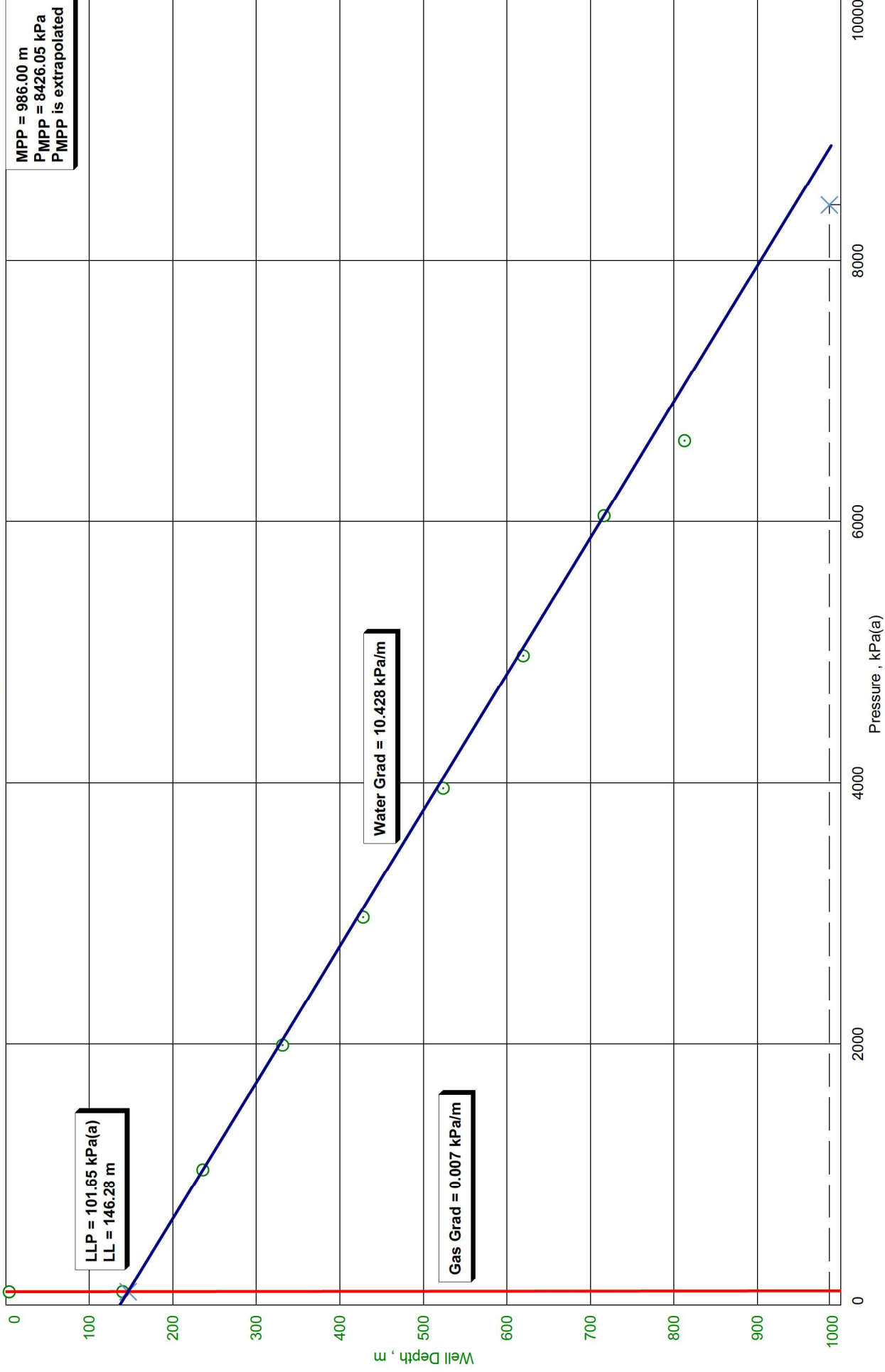
Test/Prod Interval Top KB (TVD)	983.90 m	Base KB (TVD)	988.10 m
Pool Datum Depth (SS)	m	Well Datum Depth	m
Tubing Pressure Initial	kPa(a) Final		kPa(a)
Casing Pressure Initial	kPa(a) Final		kPa(a)
Start Test Date	2007/07/24 10:34:00	Date Well Shut-In	2007/07/18 03:52:00

Depth m	Log Depth m	Time hh:mm:ss	Duration min	Pressure kPa(a)	Gradient kPa/m	Temp. °C	Gradient °C/m
812.85	813.00	10:44:00	10.00	6620.47		36.69	
716.36	716.50	11:17:00	33.00	6046.39	5.950	32.77	0.041
619.86	620.00	11:33:30	16.50	4975.64	11.095	29.71	0.032
523.87	524.00	11:50:00	16.50	3958.74	10.594	26.12	0.037
427.91	428.00	12:06:30	16.50	2968.72	10.317	22.61	0.037
331.46	331.50	12:23:00	16.50	1991.72	10.130	19.42	0.033
236.00	236.00	12:38:30	15.50	1038.11	9.990	16.46	0.031
140.00	140.00	12:53:30	15.00	102.32	9.748	14.44	0.021
4.00	4.00	13:24:00	30.50	100.66	0.012	25.39	-0.081

Results

Gas	0.007 kPa/m	Gas - Water Interface	146.28 m	101.65 kPa(a)
Water	10.428 kPa/m	MPP	986.00 m	8426.05 kPa(a)

Pressure Gradient



PRESSURE SURVEY REPORT

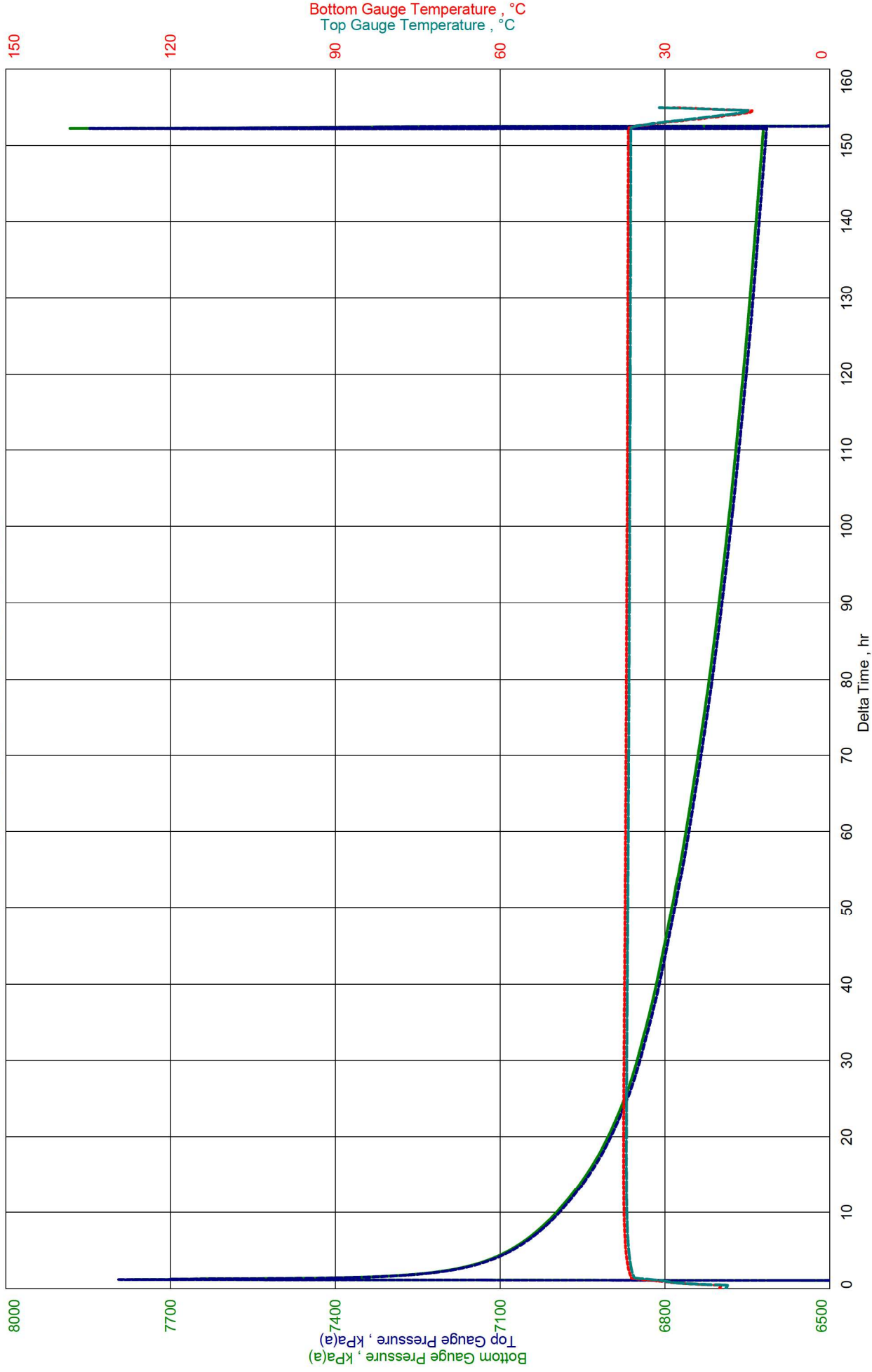
Plots



Tundra Oil & Gas Ltd.
(15-18)8-19-3-28W1
Start Test Date: 2007/07/18
Final Test Date: 2007/07/24

Tundra Pierson HZ
Formation: MC3a

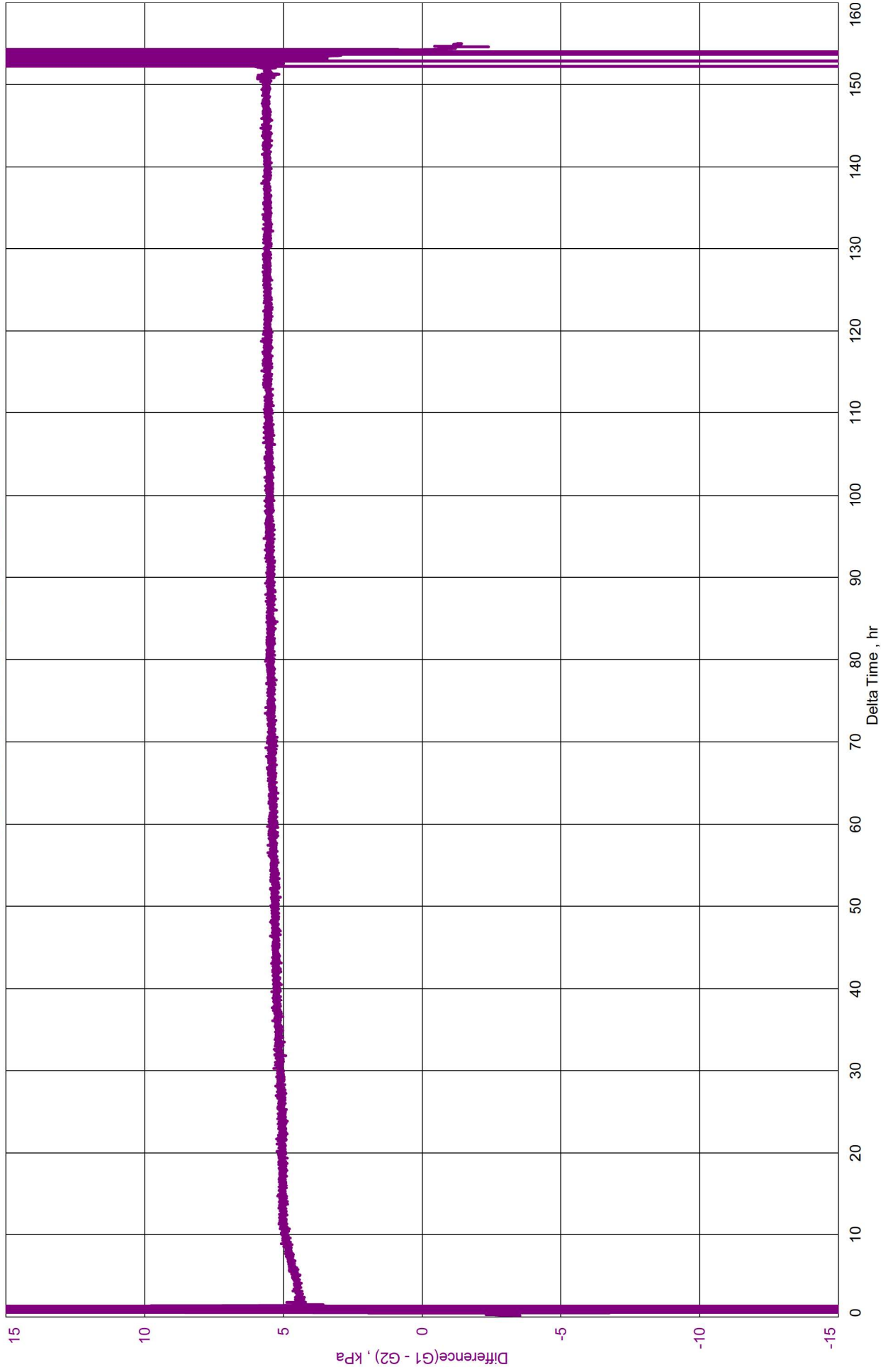
Tundra Pierson HZ



Tundra Oil & Gas Ltd.
(15-18)8-19-3-28W1
Start Test Date: 2007/07/18
Final Test Date: 2007/07/24

Tundra Pierson HZ
Formation: MC3a

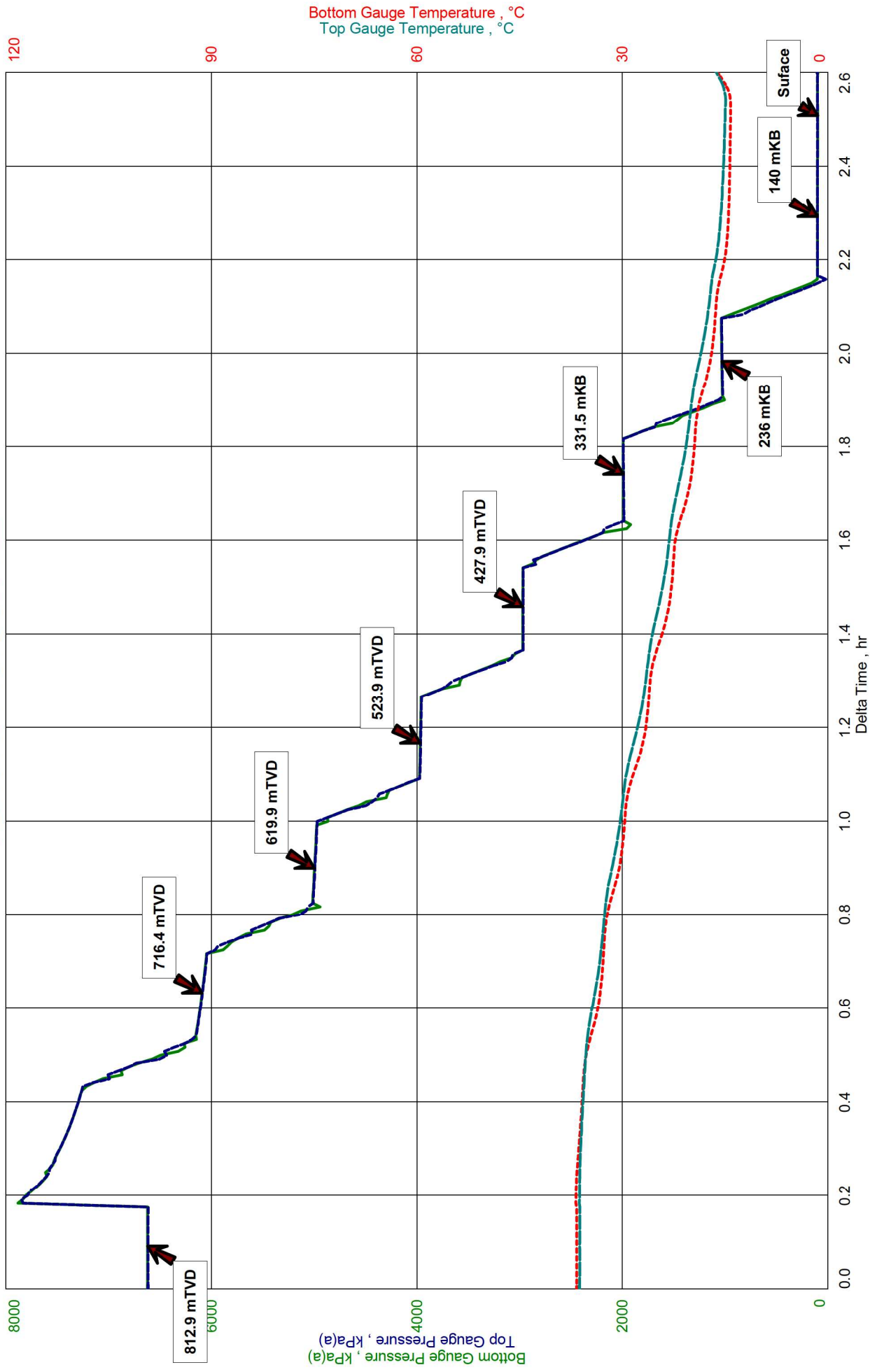
Tundra Pierson HZ



Tundra Oil & Gas Ltd.
(15-18)8-19-3-28W1
Start Test Date: 2007/07/24
Final Test Date: 2007/07/24

Tundra Pierson HZ
Formation: MC3a

Tundra Pierson HZ



Pressure Survey Report Rev. 1

Tundra Oil and Gas Ltd.
TUNDRA PIERSON HZNTL
100/13-20-003-28W1.00
Licence No.: 6307
June 23 - 29, 2007

Survey by:



Report
prepared by:



Phone: (403) 720-3444



Survey Information:

	Company Name	Tundra Oil and Gas Ltd.
	Address	Virden, MB
	Well Name	Tundra Pierson HZNTL
	Location	100/13-20-003-28W1.00
	Licence No.	6307
	Producing Zone	MC3A
	Status	Oil Well (Completion)
	Test Type	Bottom Hole Build-up, Static Gradient (See Comments)
Open Hole	Leg 1	1079.0 – 1884.0 mKB (975.7 – 980.1 mTVD)
	Leg 2	1168.0 – 1786.0 mKB (973.9 – 981.1 mTVD)
	MPP	1477.0 mKB (977.5 mTVD)
	Pressure @ MPP	5,787 kPaA (Calculated) (See Comments)
	Producing Through	177.8 mm Casing
	Casing Depth	1079.0 mKB
	PBTD	Not Available
TD	Leg 1	1884.0 mKB
	Leg 2	1786.0 mKB
	KB Elevation	473.89 m
	CF Elevation	469.54 m
	Tubing Pressure Before Survey	Not Applicable
	Tubing Pressure After Survey	Not Applicable
	Casing Pressure Before Survey	0 kPaG
	Casing Pressure After Survey	0 kPaG
	Survey Start Date yyyy/mm/dd	2007/06/23
	Survey Finish Date yyyy/mm/dd	2007/06/29
	Last Stable Temperature Recorded	36.6 ° C
	Last Stable Pressure Recorded	4,031 kPaA
	Surface Temperature	Not Available

	Top Gauge	Bottom Gauge
Serial Number	70045	76071
Calibration Date	2007/06/12	2007/06/12
Pressure Range	20.8 MPa	20.8 MPa
Survey Set Depth	801.3 mKB (801.2 mTVD)	802.0 mKB (801.9 mTVD)

kPaG to kPaA Conversion Factor	93 kPa
Wireline Work By	Mike [REDACTED] Quality Wireline, Estevan, [REDACTED]
Report Prepared By	Vida F [REDACTED] RTM, Calgary, [REDACTED]
Gauges Manufactured By	Spartek Systems, Sylvan Lake, 403-887-2443

Sequence of Events

Tundra Oil and Gas Ltd.
Tundra Pierson HZNTL
100/13-20-003-28W1.00

Date yyyy/mm/dd	Time hh:mm	Event
2007/06/23	20:15	Batteries connected to gauges 70045 and 76071 for extended test
2007/06/23	21:10	Gauges on bottom @ 802 metres (801.9 mTVD)
2007/06/23	21:15	Build-up started
2007/06/29	12:11	Gauges off bottom

Comments:

Pressure at MPP was calculated based on the gradient value of 10 for fresh water and the last stable pressure.

Comments:

These gauges were run and pulled with a pipe below a bridge plug.

There was an attempt to do a gradient by the service rig as they were pulling the tubing to surface with the bridge plug and recorders, however due to unstable pressures, the gradient calculations could not be done.

The service rig made the following stops and shot a fluid level at each stop:

Recorder Depth	Fluid Level (in casing)
802 mKB	5 joints from surface
702 mKB	11 JFS
600 mKB	14 JFS
500 mKB	16 JFS
400 mKB	18 JFS
300 mKB	19 JFS
200 mKB	20 JFS
Surface	?

Unless otherwise specified:

Pressures are presented in absolute. Depths are measured from KB.



Wireline work by Quality Wireline, Estevan, Saskatchewan



Reports prepared by RTM Inc., Calgary, Alberta



Gauges manufactured by Spartek Systems, Sylvan Lake, Alberta

RTM Inc.
Calgary, Alberta

PRESSURE SURVEY REPORT

Build-up Data



Tundra Oil & Gas Ltd.
 100/13-20-003-28W1.00
 Start Test Date: 2007/06/23
 Final Test Date: 2007/06/29

Tundra Pierson HZNTL
 Formation: MC3A

	Date	Clk Time	Delta Time	Bottom Gauge Pres.	Bottom Gauge Temp.	Top Gauge Pres.	Top Gauge Temp.	Diff. G1 - G2
	yyyy/mm/dd	hh:mm:ss	hr	kPa(a)	°C	kPa(a)	°C	kPa
1	2007/06/23	20:15:00	0.0000	125.53	32.95	113.53	31.42	12.00
2	2007/06/23	21:30:00	1.2500	6104.70	36.08	6096.37	36.38	8.33
3	2007/06/23	22:45:00	2.5000	5570.34	36.69	5561.70	36.97	8.65
4	2007/06/24	00:00:00	3.7500	5397.40	36.97	5388.62	37.24	8.78
5	2007/06/24	01:15:00	5.0000	5285.31	37.15	5276.48	37.41	8.84
6	2007/06/24	02:30:00	6.2500	5201.91	37.27	5193.11	37.53	8.79
7	2007/06/24	03:45:00	7.5000	5135.84	37.35	5127.00	37.61	8.84
8	2007/06/24	05:00:00	8.7500	5080.70	37.40	5071.81	37.66	8.89
9	2007/06/24	06:15:00	10.0000	5033.55	37.42	5024.67	37.68	8.88
10	2007/06/24	07:30:00	11.2500	4992.40	37.43	4983.52	37.71	8.88
11	2007/06/24	08:45:00	12.5000	4955.85	37.43	4946.92	37.71	8.93
12	2007/06/24	10:00:00	13.7500	4922.59	37.43	4913.71	37.71	8.88
13	2007/06/24	11:15:00	15.0000	4892.40	37.43	4883.71	37.71	8.69
14	2007/06/24	12:30:00	16.2500	4864.39	37.43	4855.76	37.71	8.63
15	2007/06/24	13:45:00	17.5000	4838.36	37.42	4829.76	37.70	8.59
16	2007/06/24	15:00:00	18.7500	4813.90	37.42	4805.38	37.68	8.52
17	2007/06/24	16:15:00	20.0000	4790.66	37.42	4782.33	37.66	8.33
18	2007/06/24	17:30:00	21.2500	4768.48	37.40	4760.23	37.64	8.25
19	2007/06/24	18:45:00	22.5000	4747.93	37.40	4739.77	37.62	8.16
20	2007/06/24	20:00:00	23.7500	4728.32	37.38	4720.31	37.60	8.00
21	2007/06/24	21:15:00	25.0000	4709.49	37.37	4701.54	37.58	7.95
22	2007/06/24	22:30:00	26.2500	4688.94	37.36	4681.03	37.56	7.91
23	2007/06/24	23:45:00	27.5000	4669.29	37.34	4661.58	37.54	7.71
24	2007/06/25	01:00:00	28.7500	4653.20	37.32	4645.62	37.52	7.59
25	2007/06/25	02:15:00	30.0000	4637.44	37.31	4629.89	37.50	7.54
26	2007/06/25	03:30:00	31.2500	4622.36	37.30	4614.91	37.49	7.45
27	2007/06/25	04:45:00	32.5000	4607.85	37.29	4600.50	37.47	7.35
28	2007/06/25	06:00:00	33.7500	4593.88	37.27	4586.60	37.45	7.29
29	2007/06/25	07:15:00	35.0000	4580.26	37.26	4572.98	37.44	7.28
30	2007/06/25	08:30:00	36.2500	4566.86	37.25	4559.78	37.42	7.08
31	2007/06/25	09:45:00	37.5000	4554.18	37.24	4547.15	37.41	7.03
32	2007/06/25	11:00:00	38.7500	4541.90	37.23	4534.96	37.40	6.93
33	2007/06/25	12:15:00	40.0000	4529.97	37.22	4523.05	37.38	6.93
34	2007/06/25	13:30:00	41.2500	4518.48	37.22	4511.60	37.37	6.88
35	2007/06/25	14:45:00	42.5000	4506.95	37.21	4500.24	37.36	6.71
36	2007/06/25	16:00:00	43.7500	4494.94	37.15	4488.80	37.35	6.14
37	2007/06/25	17:15:00	45.0000	4484.74	37.20	4478.08	37.33	6.66
38	2007/06/25	18:30:00	46.2500	4474.26	37.21	4467.75	37.33	6.51
39	2007/06/25	19:45:00	47.5000	4464.02	37.20	4457.52	37.32	6.50

Bottom Gauge Serial Number: 76071 Start Date: 2007/06/23 20:15:00 Run Depth: 801.90
 Top Gauge Serial Number: 70045 Start Date: 2007/06/23 20:15:00 Run Depth: 801.20
 Print Filter: Print every 150th point

Tundra Oil & Gas Ltd.
 100/13-20-003-28W1.00
 Start Test Date: 2007/06/23
 Final Test Date: 2007/06/29

Tundra Pierson HZNTL
 Formation: MC3A

	Date	Clk Time	Delta Time	Bottom Gauge Pres.	Bottom Gauge Temp.	Top Gauge Pres.	Top Gauge Temp.	Diff. G1 - G2
	yyyy/mm/dd	hh:mm:ss	hr	kPa(a)	°C	kPa(a)	°C	kPa
40	2007/06/25	21:00:00	48.7500	4453.96	37.18	4447.56	37.31	6.40
41	2007/06/25	22:15:00	50.0000	4444.22	37.19	4437.98	37.29	6.24
42	2007/06/25	23:30:00	51.2500	4434.75	37.18	4428.54	37.29	6.21
43	2007/06/26	00:45:00	52.5000	4425.52	37.18	4419.31	37.27	6.20
44	2007/06/26	02:00:00	53.7500	4416.56	37.16	4410.43	37.26	6.13
45	2007/06/26	03:15:00	55.0000	4407.36	37.16	4401.29	37.25	6.07
46	2007/06/26	04:30:00	56.2500	4398.48	37.15	4392.55	37.24	5.93
47	2007/06/26	05:45:00	57.5000	4389.66	37.14	4383.73	37.23	5.93
48	2007/06/26	07:00:00	58.7500	4380.94	37.13	4375.13	37.22	5.81
49	2007/06/26	08:15:00	60.0000	4372.60	37.12	4366.86	37.21	5.75
50	2007/06/26	09:30:00	61.2500	4364.72	37.11	4358.99	37.21	5.72
51	2007/06/26	10:45:00	62.5000	4356.61	37.11	4350.96	37.20	5.65
52	2007/06/26	12:00:00	63.7500	4349.00	37.10	4343.36	37.19	5.64
53	2007/06/26	13:15:00	65.0000	4341.48	37.09	4335.88	37.18	5.60
54	2007/06/26	14:30:00	66.2500	4334.02	37.07	4328.55	37.17	5.47
55	2007/06/26	15:45:00	67.5000	4326.54	37.07	4321.05	37.16	5.49
56	2007/06/26	17:00:00	68.7500	4319.25	37.06	4313.89	37.15	5.36
57	2007/06/26	18:15:00	70.0000	4306.23	37.05	4300.86	37.13	5.37
58	2007/06/26	19:30:00	71.2500	4299.13	37.04	4293.88	37.13	5.25
59	2007/06/26	20:45:00	72.5000	4292.39	37.03	4287.15	37.12	5.24
60	2007/06/26	22:00:00	73.7500	4285.69	37.02	4280.58	37.11	5.11
61	2007/06/26	23:15:00	75.0000	4279.33	37.01	4274.26	37.10	5.07
62	2007/06/27	00:30:00	76.2500	4272.86	37.00	4267.90	37.10	4.96
63	2007/06/27	01:45:00	77.5000	4266.54	36.99	4261.57	37.08	4.97
64	2007/06/27	03:00:00	78.7500	4259.96	36.98	4255.00	37.07	4.96
65	2007/06/27	04:15:00	80.0000	4253.77	36.97	4248.91	37.06	4.86
66	2007/06/27	05:30:00	81.2500	4247.87	36.96	4243.01	37.05	4.85
67	2007/06/27	06:45:00	82.5000	4241.66	36.95	4236.91	37.05	4.75
68	2007/06/27	08:00:00	83.7500	4234.81	36.94	4230.00	37.03	4.81
69	2007/06/27	09:15:00	85.0000	4228.54	36.93	4223.86	37.03	4.68
70	2007/06/27	10:30:00	86.2500	4222.75	36.92	4218.10	37.02	4.65
71	2007/06/27	11:45:00	87.5000	4217.05	36.91	4212.42	37.01	4.63
72	2007/06/27	13:00:00	88.7500	4211.33	36.91	4206.69	37.00	4.63
73	2007/06/27	14:15:00	90.0000	4205.79	36.90	4201.25	36.99	4.54
74	2007/06/27	15:30:00	91.2500	4200.28	36.88	4195.81	36.98	4.47
75	2007/06/27	16:45:00	92.5000	4195.57	36.88	4191.13	36.98	4.44
76	2007/06/27	18:00:00	93.7500	4190.19	36.87	4185.65	36.97	4.54
77	2007/06/27	19:15:00	95.0000	4184.62	36.86	4180.15	36.97	4.47
78	2007/06/27	20:30:00	96.2500	4179.41	36.85	4174.95	36.95	4.45

Bottom Gauge Serial Number: 76071 Start Date: 2007/06/23 20:15:00 Run Depth: 801.90
 Top Gauge Serial Number: 70045 Start Date: 2007/06/23 20:15:00 Run Depth: 801.20
 Print Filter: Print every 150th point

Tundra Oil & Gas Ltd.
 100/13-20-003-28W1.00
 Start Test Date: 2007/06/23
 Final Test Date: 2007/06/29

Tundra Pierson HZNTL
 Formation: MC3A

	Date	Clk Time	Delta Time	Bottom Gauge Pres.	Bottom Gauge Temp.	Top Gauge Pres.	Top Gauge Temp.	Diff. G1 - G2
	yyyy/mm/dd	hh:mm:ss	hr	kPa(a)	°C	kPa(a)	°C	kPa
79	2007/06/27	21:45:00	97.5000	4174.10	36.84	4169.79	36.95	4.31
80	2007/06/27	23:00:00	98.7500	4168.41	36.83	4164.07	36.94	4.34
81	2007/06/28	00:15:00	100.0000	4163.39	36.83	4159.07	36.93	4.31
82	2007/06/28	01:30:00	101.2500	4158.28	36.81	4154.02	36.92	4.27
83	2007/06/28	02:45:00	102.5000	4153.13	36.81	4148.92	36.92	4.21
84	2007/06/28	04:00:00	103.7500	4147.93	36.80	4143.76	36.91	4.18
85	2007/06/28	05:15:00	105.0000	4142.86	36.79	4138.68	36.90	4.18
86	2007/06/28	06:30:00	106.2500	4137.77	36.78	4133.62	36.89	4.15
87	2007/06/28	07:45:00	107.5000	4132.79	36.78	4128.75	36.89	4.04
88	2007/06/28	09:00:00	108.7500	4127.60	36.77	4123.56	36.87	4.04
89	2007/06/28	10:15:00	110.0000	4122.66	36.76	4118.59	36.87	4.07
90	2007/06/28	11:30:00	111.2500	4117.65	36.75	4113.63	36.86	4.03
91	2007/06/28	12:45:00	112.5000	4112.87	36.74	4108.88	36.86	3.99
92	2007/06/28	14:00:00	113.7500	4108.33	36.74	4104.33	36.85	4.00
93	2007/06/28	15:15:00	115.0000	4103.69	36.73	4099.77	36.85	3.92
94	2007/06/28	16:30:00	116.2500	4099.19	36.72	4095.19	36.83	4.00
95	2007/06/28	17:45:00	117.5000	4094.42	36.71	4090.63	36.83	3.80
96	2007/06/28	19:00:00	118.7500	4090.16	36.71	4086.32	36.82	3.84
97	2007/06/28	20:15:00	120.0000	4085.83	36.70	4082.03	36.82	3.80
98	2007/06/28	21:30:00	121.2500	4081.25	36.69	4077.49	36.81	3.77
99	2007/06/28	22:45:00	122.5000	4076.83	36.69	4072.97	36.80	3.85
100	2007/06/29	00:00:00	123.7500	4072.57	36.68	4068.82	36.79	3.75
101	2007/06/29	01:15:00	125.0000	4068.23	36.67	4064.48	36.79	3.74
102	2007/06/29	02:30:00	126.2500	4063.86	36.66	4060.23	36.78	3.62
103	2007/06/29	03:45:00	127.5000	4059.75	36.66	4056.01	36.78	3.74
104	2007/06/29	05:00:00	128.7500	4055.36	36.65	4051.70	36.77	3.66
105	2007/06/29	06:15:00	130.0000	4051.02	36.64	4047.26	36.77	3.76
106	2007/06/29	07:30:00	131.2500	4046.73	36.64	4043.08	36.76	3.65
107	2007/06/29	08:45:00	132.5000	4042.25	36.63	4038.64	36.75	3.61
108	2007/06/29	10:00:00	133.7500	4038.05	36.62	4034.49	36.75	3.56
109	2007/06/29	11:15:00	135.0000	4033.80	36.62	4030.25	36.74	3.55
110	2007/06/29	12:30:00	136.2500	6957.63	35.43	6937.92	35.89	19.71

Bottom Gauge Serial Number: 76071 Start Date: 2007/06/23 20:15:00 Run Depth: 801.90
 Top Gauge Serial Number: 70045 Start Date: 2007/06/23 20:15:00 Run Depth: 801.20
 Print Filter: Print every 150th point

PRESSURE SURVEY REPORT

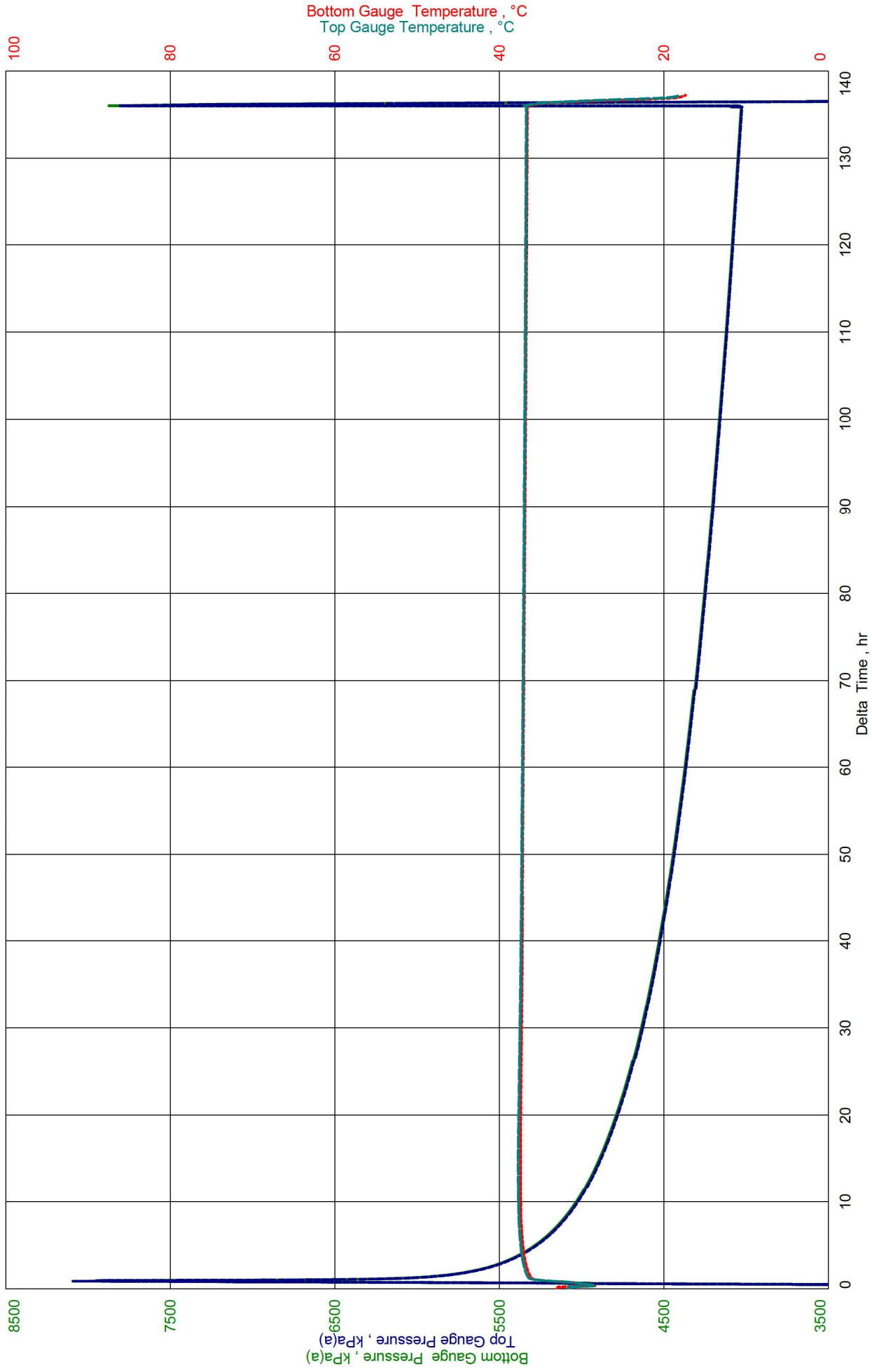
Plots



Tundra Oil & Gas Ltd.
100/13-20-003-28W1.00
Start Test Date: 2007/06/23
Final Test Date: 2007/06/29

Tundra Pierson HZNTL
Formation: MC3A

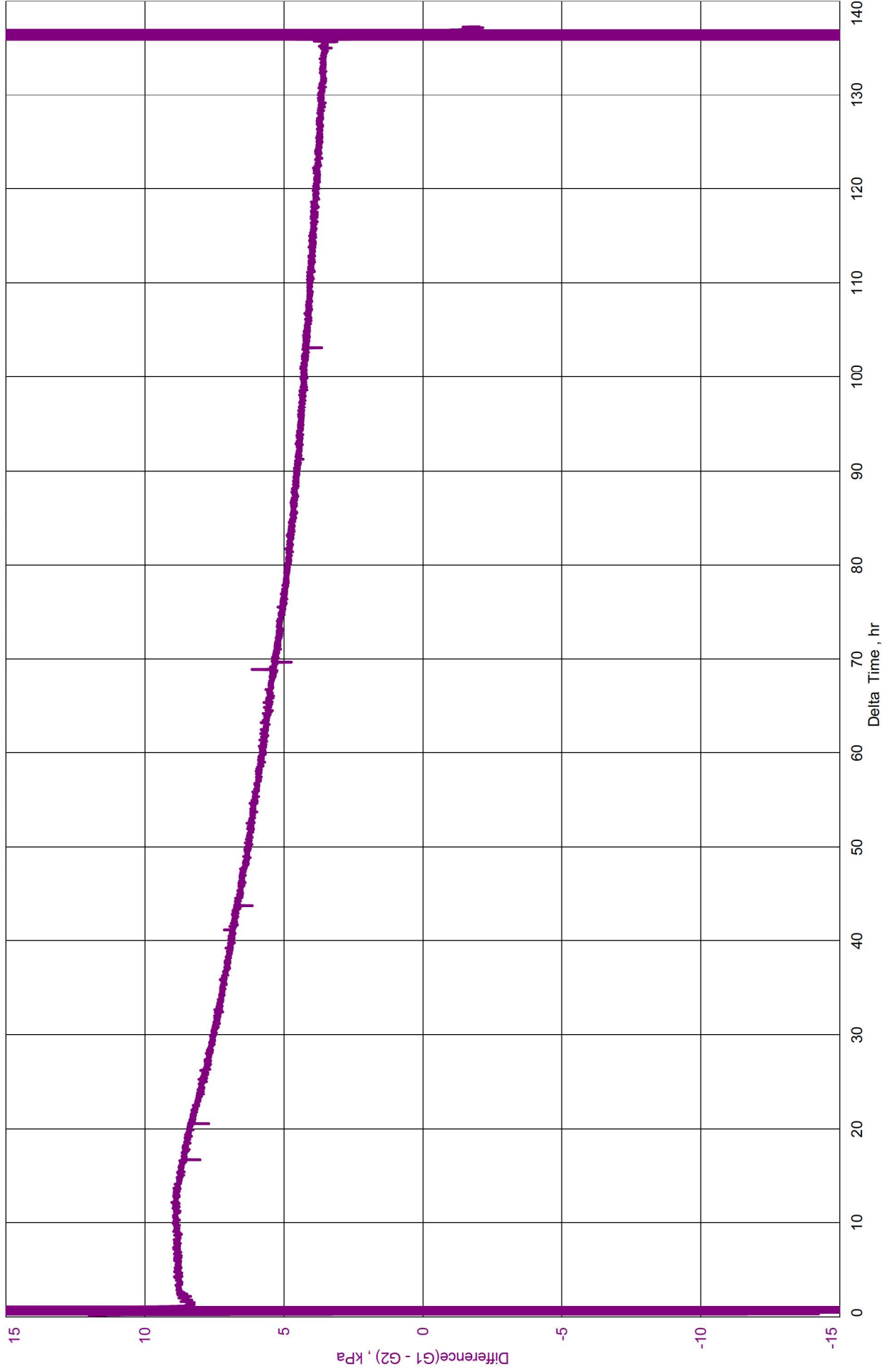
Tundra Pierson HZNTL



Tundra Oil & Gas Ltd.
100/13-20-003-28W1.00
Start Test Date: 2007/06/23
Final Test Date: 2007/06/29

Tundra Pierson HZNTL
Formation: MC3A

Tundra Pierson HZNTL





TUNDRA OIL & GAS PARTNERSHIP

NORTH PIERSON UNIT No.1 HZNTL 15B-17-1D-19-3-28

102/01-19-003-28W1/0

LICENSE #: 9821

LODGEPOLE – ALIDA POROSITY FORMATION

RESERVOIR PRESSURE SURVEY TEST DATA

OCTOBER 11th - NOVEMBER 9th, 2014

Prepared by: **DOLLCO Well Data Services**

e-mail: dollco@shaw.ca

PO Box 326
417A Mississippian Drive
Estevan, SK
S4A 2A4

Cell: (306) 421 - 7330
Fax: (306) 634 - 7976
Res: (306) 634 - 8761

E-mail: qualityw@sasktel.net

Pressure Survey Report

Company Information

Company Name
Contact
e-mail
Phone
Site Contact
Site Phone

TUNDRA OIL & GAS PARTNERSHIP
CRAIG [REDACTED]
craig.lane@tundraoilandgas.com
(306) 748-4409
BRENT [REDACTED]
(204) 851-5013

Well Information

Well Name
Unique Well ID
Surface Location
Well License Number
Well Type
Well Fluid Type
Field

NORTH PIERSON UNIT No.1 HZNTL 15B-17-1D-19-3-28
102/01-19-003-28W1/00
15B-17 / 1D-19-3-28W1
9821
Horizontal
01 Oil
NORTH PIERSON UNIT No.1

KB Elevation (SL)
CF Elevation (SL)
GL Elevation (SL)
Distance from KB to CF (Log)
KB-GL Offset

471.71 m
467.61 m
467.61 m
4.10 m
4.10 m

Tubing ID
Tubing OD
Tubing Depth(Log KB)
Tubing Depth(TVD KB)
Casing ID
Casing OD
Casing Depth(Log KB)
Casing Depth(TVD KB)
PBSD(Log KB)
PBSD(TVD KB)

mm
mm
m
m
mm
177.8 mm
1075.00000 m
975.34000 m
m
m

Pressure Survey Report

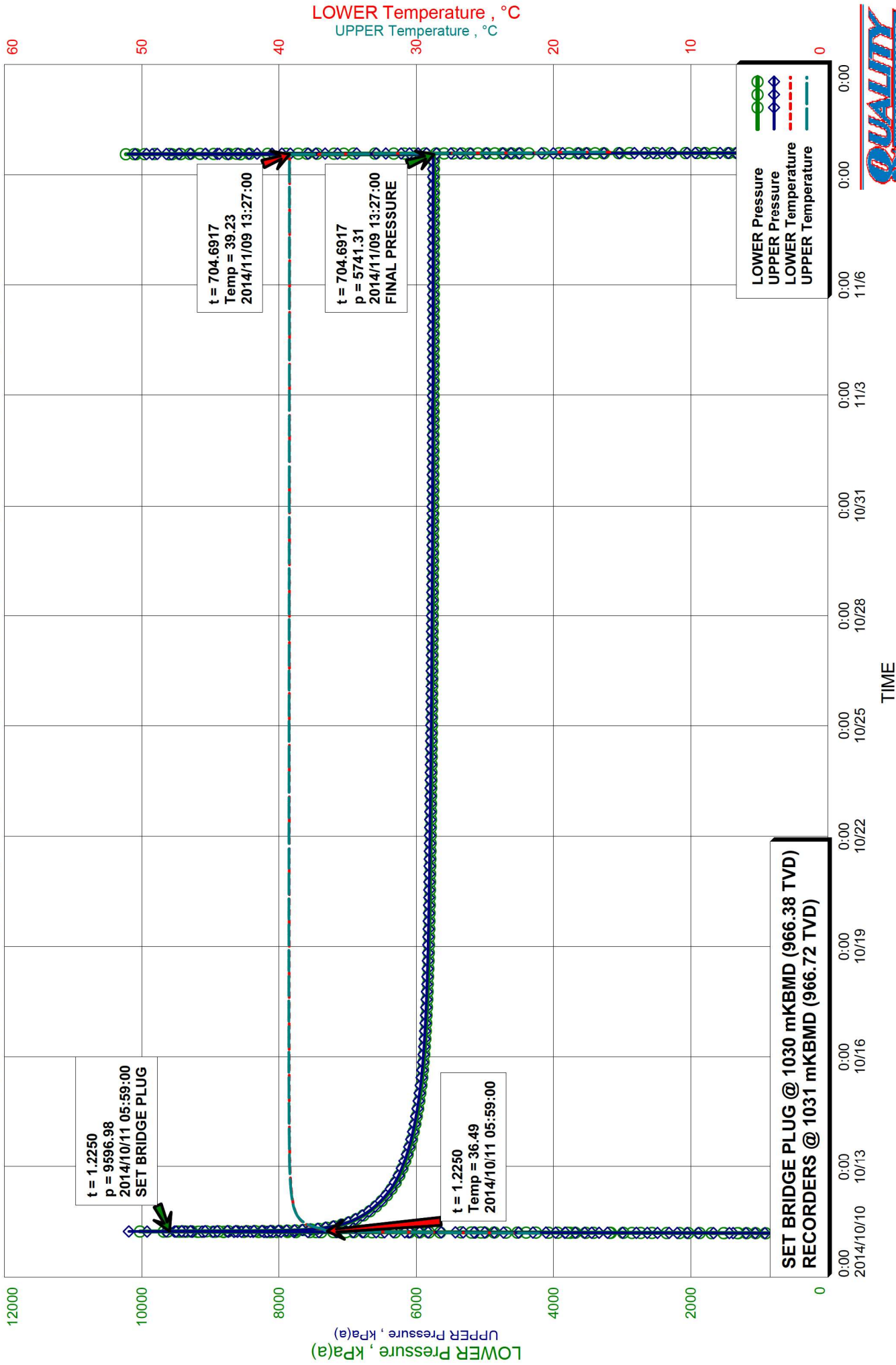
Test Information

Well Name	NORTH PIERSON UNIT No.1 HZNTL 15B-17-1D-19-3-28
Unique Well ID	102/01-19-003-28W1/00
Surface Location	15B-17 / 1D-19-3-28W1
Well License Number	9821
Well Fluid Type	01 Oil
Test Purpose	Initial Test
Test Type	RESERVOIR PRESSURE SURVEY
Formation	LODGEPOLE / ALIDA POROSITY
Well Type Indicator	Horizontal
Test/Prod. Interval Top KB (Log)	1075.00 m
Test/Prod. Interval Base KB (Log)	2262.00 m
MPP(Log KB)	1668.50 m
Test/Prod Interval Top KB (TVD)	975.34 m
Test/Prod. Interval Base m KB (TVD)	981.96 m
MPP(TVD KB)	978.65 m
Tubing Pressure Initial	kPa(a)
Casing Pressure Initial	kPa(a)
Tubing Pressure: Final	kPa(a)
Casing Pressure: Final	kPa(a)
Time/Date Well Shut-In	2014/10/11 05:52:00
Final Test Date/Time	2014/11/09 13:27:00
Gauge Serial Number Used in Summary	40610
Last Measured Pressure at Run Depth	5741.31 kPa(a)
Reservoir Temperature	39.23 °C
Service Company	Quality Wireline Services Ltd.
Representative	IVORY [REDACTED]
Prepared By	DOLLCO Well Data Services
Qualified By	RICK [REDACTED]
Report Date	2014/11/19

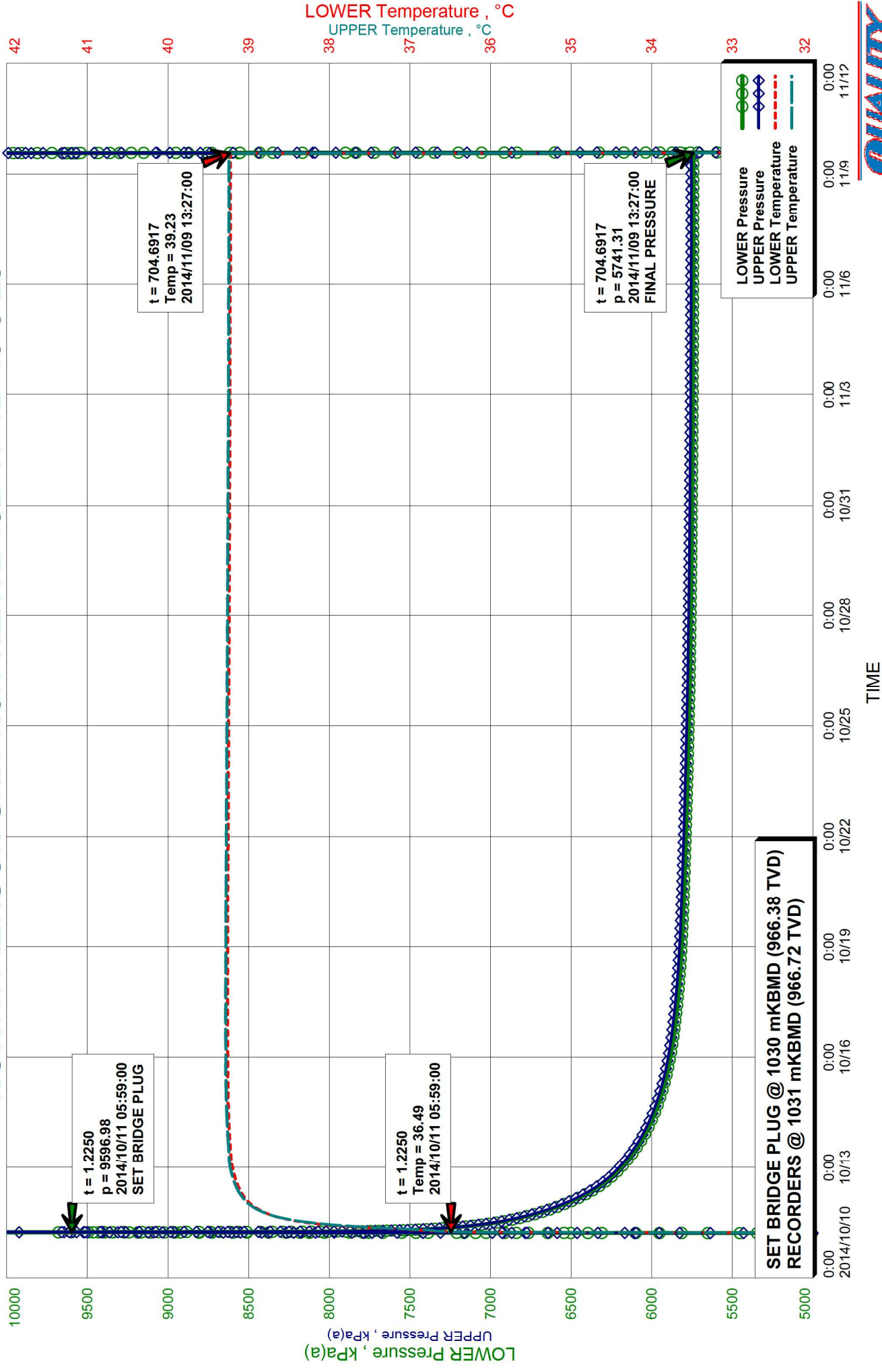
OPEN HOLE INTERVAL: 1075 - 2262 mKBMD (975.34 - 981.967 TVD)
TANGENT SECTION: 1021 - 1030 mKBMD (963.28 - 966.38 TVD)



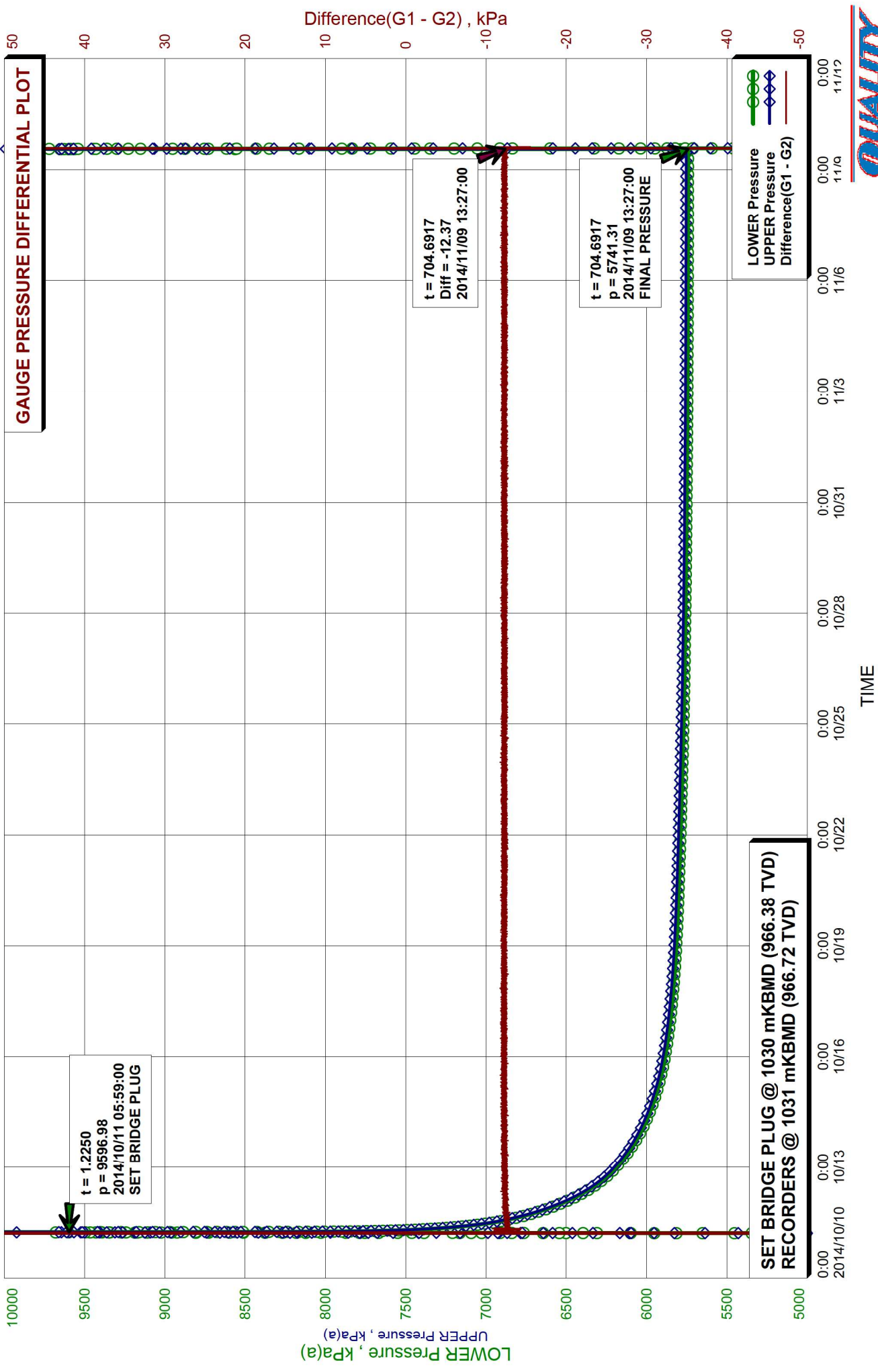
NORTH PIERSON UNIT No.1 HZNTL 15B-17-1D-19-3-28



NORTH PIERSON UNIT No.1 HZNTL 15B-17-1D-19-3-28



NORTH PIERSON UNIT No.1 HZNTL 15B-17-1D-19-3-28



Recorder Information

Company Name	TUNDRA OIL & GAS PARTNERSHIP
Unique Well ID	102/01-19-003-28W1/00
Well Name	NORTH PIERSON UNIT No.1 HZNTL 15B-17-1D-19-3-28
Formation	LODGEPOLE / ALIDA POROSITY
Start Test Date	2014/10/11
Final Test Date	2014/11/09

Gauge 1

Gauge Name	LOWER	Gauge Type	ELECTRONIC
Gauge Serial Number	40610	Gauge Manufacturer	REAL TIME MEASUREMENTS
Run Depth (Log KB)	1031.00 m	Gauge Model	KC2 STRAIN
Date of Last Calibration	2011/12/01	Maximum Recorder Range	20680.00 kPa
Gauge Start Date	2014/10/11	Gauge Start Time	04:45:30
Gauge Stop Date	2014/11/09	Gauge Stop Time	14:57:00
Date Gauge On Bottom	2014/10/11	Time Gauge On Bottom	05:50:30
Date Gauge Off Bottom	2014/11/09	Time Gauge Off Bottom	13:43:30

Gauge 2

Gauge Name	UPPER	Gauge Type	ELECTRONIC
Gauge Serial Number	40609	Gauge Manufacturer	REAL TIME MEASUREMENTS
Run Depth (Log KB)	1031.00 m	Gauge Model	KC2 STRAIN
Date of Last Calibration	2011/12/01	Maximum Recorder Range	20680.00 kPa
Gauge Start Date	2014/10/11	Gauge Start Time	04:45:30
Gauge Stop Date	2014/11/09	Gauge Stop Time	14:57:00
Date Gauge On Bottom	2014/10/11	Time Gauge On Bottom	05:50:30
Date Gauge Off Bottom	2014/11/09	Time Gauge Off Bottom	13:43:30

TUNDRA OIL & GAS PARTNERSHIP
102/01-19-003-28W1/00
Start Test Date: 2014/10/11
Final Test Date: 2014/11/09

NORTH PIERSON UNIT No.1 HZNTL 15B-17-1D-19-3-28
RESERVOIR PRESSURE SURV Formation: LODGEPOLE / ALIDA POROSITY
RECORDERS @ 1031 mKBMD (966.72 TVD)

	LOWER Date yyyy/mm/dd	LOWER Clk Time hh:mm:ss	LOWER Time hr	LOWER Pres. kPa(a)	LOWER Temp. °C	UPPER Time hr	UPPER Pres. kPa(a)	UPPER Temp. °C	Diff. G1 - G2 kPa
1	2014/10/11	04:45:30	0.0000	776.78	21.34	0.0000	783.98	21.07	-7.19
2	2014/10/11	04:45:30	0.0000	RIH, ACTIVATE RECORDERS S/N: 40610(L) & 40609(U)					
3	2014/10/11	04:46:00	0.0083	764.02	21.58	0.0083	779.88	21.39	-15.86
4	2014/10/11	05:50:30	1.0833	9494.99	36.34	1.0833	9515.56	36.30	-20.58
5	2014/10/11	05:50:30	1.0833	RECORDERS ON BOTTOM @ 1031 mKBMD (966.72 TVD)					
6	2014/10/11	05:51:00	1.0917	9599.87	36.36	1.0917	9508.40	36.30	91.47
7	2014/10/11	05:59:00	1.2250	9596.98	36.49	1.2250	9588.13	36.36	8.86
8	2014/10/11	05:59:00	1.2250	SET BRIDGE PLUG @ 1030 mKBMD (966.38 TVD)					
9	2014/10/11	05:59:30	1.2333	9560.61	36.49	1.2333	9587.27	36.39	-26.65
10	2014/10/11	08:45:30	4.0000	7246.79	37.51	4.0000	7259.69	37.41	-12.90
11	2014/10/11	12:45:30	8.0000	6923.42	38.38	8.0000	6935.85	38.34	-12.43
12	2014/10/11	16:45:30	12.0000	6752.91	38.71	12.0000	6765.69	38.71	-12.78
13	2014/10/11	20:45:30	16.0000	6626.69	38.88	16.0000	6639.16	38.90	-12.47
14	2014/10/12	00:45:30	20.0000	6526.41	38.99	20.0000	6538.49	39.01	-12.08
15	2014/10/12	04:45:30	24.0000	6441.28	39.06	24.0000	6453.74	39.08	-12.46
16	2014/10/12	08:45:30	28.0000	6371.48	39.10	28.0000	6383.85	39.13	-12.37
17	2014/10/12	12:45:30	32.0000	6312.33	39.14	32.0000	6324.83	39.16	-12.50
18	2014/10/12	16:45:30	36.0000	6262.27	39.17	36.0000	6274.54	39.19	-12.27
19	2014/10/12	20:45:30	40.0000	6220.09	39.19	40.0000	6232.57	39.21	-12.48
20	2014/10/13	00:45:30	44.0000	6184.78	39.21	44.0000	6197.03	39.23	-12.26
21	2014/10/13	04:45:30	48.0000	6152.24	39.21	48.0000	6164.46	39.24	-12.22
22	2014/10/13	08:45:30	52.0000	6123.48	39.22	52.0000	6135.86	39.24	-12.38
23	2014/10/13	12:45:30	56.0000	6096.86	39.23	56.0000	6109.18	39.25	-12.32
24	2014/10/13	16:45:30	60.0000	6071.36	39.23	60.0000	6083.62	39.25	-12.26
25	2014/10/13	20:45:30	64.0000	6049.22	39.24	64.0000	6061.70	39.26	-12.48
26	2014/10/14	00:45:30	68.0000	6028.96	39.24	68.0000	6041.27	39.26	-12.31
27	2014/10/14	04:45:30	72.0000	6010.43	39.25	72.0000	6022.52	39.27	-12.09
28	2014/10/14	08:45:30	76.0000	5993.22	39.25	76.0000	6005.52	39.27	-12.30
29	2014/10/14	12:45:30	80.0000	5977.72	39.25	80.0000	5989.98	39.27	-12.26
30	2014/10/14	16:45:30	84.0000	5963.69	39.25	84.0000	5975.70	39.27	-12.01
31	2014/10/14	20:45:30	88.0000	5950.44	39.26	88.0000	5962.73	39.28	-12.29
32	2014/10/15	00:45:30	92.0000	5938.39	39.25	92.0000	5950.59	39.28	-12.20
33	2014/10/15	04:45:30	96.0000	5927.19	39.26	96.0000	5939.43	39.28	-12.24
34	2014/10/15	08:45:30	100.0000	5916.29	39.25	100.0000	5928.73	39.28	-12.43
35	2014/10/15	12:45:30	104.0000	5907.39	39.26	104.0000	5919.57	39.28	-12.18
36	2014/10/15	16:45:30	108.0000	5898.74	39.26	108.0000	5911.20	39.28	-12.46
37	2014/10/15	20:45:30	112.0000	5891.40	39.26	112.0000	5903.50	39.28	-12.10
38	2014/10/16	00:45:30	116.0000	5884.08	39.26	116.0000	5896.35	39.28	-12.27
39	2014/10/16	04:45:30	120.0000	5877.80	39.26	120.0000	5890.02	39.28	-12.22
40	2014/10/16	08:45:30	124.0000	5871.43	39.26	124.0000	5883.47	39.29	-12.04

LOWER Serial Number: 40610 Start Date: 2014/10/11 04:45:30 Run Depth: 1031.00
UPPER Serial Number: 40609 Start Date: 2014/10/11 04:45:30 Run Depth: 1031.00
Print Filter: Print every 4 hour

TUNDRA OIL & GAS PARTNERSHIP
102/01-19-003-28W1/00
Start Test Date: 2014/10/11
Final Test Date: 2014/11/09

NORTH PIERSON UNIT No.1 HZNTL 15B-17-1D-19-3-28
RESERVOIR PRESSURE SURV Formation: LODGEPOLE / ALIDA POROSITY
RECORDERS @ 1031 mKBMD (966.72 TVD)

	LOWER Date yyyy/mm/dd	LOWER Clk Time hh:mm:ss	LOWER Time hr	LOWER Pres. kPa(a)	LOWER Temp. °C	UPPER Time hr	UPPER Pres. kPa(a)	UPPER Temp. °C	Diff. G1 - G2 kPa
41	2014/10/16	12:45:30	128.0000	5865.96	39.26	128.0000	5878.30	39.28	-12.34
42	2014/10/16	16:45:30	132.0000	5860.90	39.26	132.0000	5873.14	39.28	-12.24
43	2014/10/16	20:45:30	136.0000	5855.93	39.26	136.0000	5868.24	39.28	-12.32
44	2014/10/17	00:45:30	140.0000	5851.60	39.26	140.0000	5863.89	39.28	-12.29
45	2014/10/17	04:45:30	144.0000	5847.03	39.26	144.0000	5859.55	39.29	-12.52
46	2014/10/17	08:45:30	148.0000	5843.25	39.26	148.0000	5855.35	39.28	-12.09
47	2014/10/17	12:45:30	152.0000	5839.62	39.26	152.0000	5851.49	39.29	-11.87
48	2014/10/17	16:45:30	156.0000	5836.30	39.26	156.0000	5848.46	39.28	-12.16
49	2014/10/17	20:45:30	160.0000	5832.73	39.26	160.0000	5845.10	39.28	-12.38
50	2014/10/18	00:45:30	164.0000	5829.82	39.26	164.0000	5842.18	39.28	-12.36
51	2014/10/18	04:45:30	168.0000	5827.34	39.26	168.0000	5839.43	39.28	-12.09
52	2014/10/18	08:45:30	172.0000	5824.37	39.26	172.0000	5836.70	39.28	-12.33
53	2014/10/18	12:45:30	176.0000	5821.58	39.26	176.0000	5833.99	39.28	-12.42
54	2014/10/18	16:45:30	180.0000	5819.10	39.26	180.0000	5831.49	39.28	-12.39
55	2014/10/18	20:45:30	184.0000	5816.84	39.26	184.0000	5829.29	39.28	-12.45
56	2014/10/19	00:45:30	188.0000	5814.68	39.26	188.0000	5827.21	39.28	-12.54
57	2014/10/19	04:45:30	192.0000	5812.73	39.26	192.0000	5824.99	39.28	-12.26
58	2014/10/19	08:45:30	196.0000	5810.98	39.26	196.0000	5822.99	39.28	-12.01
59	2014/10/19	12:45:30	200.0000	5809.18	39.26	200.0000	5821.30	39.28	-12.11
60	2014/10/19	16:45:30	204.0000	5807.18	39.26	204.0000	5819.67	39.28	-12.49
61	2014/10/19	20:45:30	208.0000	5805.90	39.26	208.0000	5818.21	39.28	-12.31
62	2014/10/20	00:45:30	212.0000	5804.23	39.26	212.0000	5816.31	39.28	-12.08
63	2014/10/20	04:45:30	216.0000	5802.83	39.26	216.0000	5815.22	39.28	-12.38
64	2014/10/20	08:45:30	220.0000	5801.55	39.26	220.0000	5813.68	39.28	-12.13
65	2014/10/20	12:45:30	224.0000	5799.89	39.26	224.0000	5812.31	39.28	-12.42
66	2014/10/20	16:45:30	228.0000	5798.82	39.26	228.0000	5811.11	39.28	-12.29
67	2014/10/20	20:45:30	232.0000	5797.26	39.26	232.0000	5809.54	39.28	-12.29
68	2014/10/21	00:45:30	236.0000	5795.91	39.26	236.0000	5808.30	39.28	-12.38
69	2014/10/21	04:45:30	240.0000	5794.97	39.26	240.0000	5807.30	39.28	-12.33
70	2014/10/21	08:45:30	244.0000	5793.76	39.26	244.0000	5806.11	39.28	-12.35
71	2014/10/21	12:45:30	248.0000	5792.37	39.26	248.0000	5804.64	39.28	-12.27
72	2014/10/21	16:45:30	252.0000	5791.32	39.26	252.0000	5803.55	39.28	-12.23
73	2014/10/21	20:45:30	256.0000	5790.00	39.25	256.0000	5802.29	39.28	-12.29
74	2014/10/22	00:45:30	260.0000	5788.92	39.26	260.0000	5801.09	39.28	-12.17
75	2014/10/22	04:45:30	264.0000	5787.60	39.25	264.0000	5799.88	39.28	-12.28
76	2014/10/22	08:45:30	268.0000	5786.83	39.25	268.0000	5798.98	39.28	-12.15
77	2014/10/22	12:45:30	272.0000	5785.62	39.25	272.0000	5797.77	39.28	-12.15
78	2014/10/22	16:45:30	276.0000	5784.59	39.25	276.0000	5796.79	39.28	-12.19
79	2014/10/22	20:45:30	280.0000	5783.06	39.25	280.0000	5795.59	39.28	-12.53
80	2014/10/23	00:45:30	284.0000	5781.98	39.25	284.0000	5794.36	39.28	-12.39

LOWER Serial Number: 40610 Start Date: 2014/10/11 04:45:30 Run Depth: 1031.00
UPPER Serial Number: 40609 Start Date: 2014/10/11 04:45:30 Run Depth: 1031.00
Print Filter: Print every 4 hour

TUNDRA OIL & GAS PARTNERSHIP
102/01-19-003-28W1/00
Start Test Date: 2014/10/11
Final Test Date: 2014/11/09

NORTH PIERSON UNIT No.1 HZNTL 15B-17-1D-19-3-28
RESERVOIR PRESSURE SURV Formation: LODGEPOLE / ALIDA POROSITY
RECORDERS @ 1031 mKBMD (966.72 TVD)

	LOWER Date yyyy/mm/dd	LOWER Clk Time hh:mm:ss	LOWER Time hr	LOWER Pres. kPa(a)	LOWER Temp. °C	UPPER Time hr	UPPER Pres. kPa(a)	UPPER Temp. °C	Diff. G1 - G2 kPa
81	2014/10/23	04:45:30	288.0000	5781.23	39.25	288.0000	5793.54	39.27	-12.30
82	2014/10/23	08:45:30	292.0000	5780.39	39.25	292.0000	5792.52	39.27	-12.13
83	2014/10/23	12:45:30	296.0000	5779.15	39.25	296.0000	5791.50	39.27	-12.35
84	2014/10/23	16:45:30	300.0000	5778.00	39.25	300.0000	5790.42	39.27	-12.42
85	2014/10/23	20:45:30	304.0000	5777.15	39.25	304.0000	5789.50	39.27	-12.35
86	2014/10/24	00:45:30	308.0000	5775.81	39.25	308.0000	5788.13	39.27	-12.31
87	2014/10/24	04:45:30	312.0000	5775.20	39.25	312.0000	5787.28	39.27	-12.07
88	2014/10/24	08:45:30	316.0000	5774.17	39.25	316.0000	5786.68	39.27	-12.51
89	2014/10/24	12:45:30	320.0000	5773.26	39.25	320.0000	5785.57	39.27	-12.31
90	2014/10/24	16:45:30	324.0000	5772.34	39.25	324.0000	5784.74	39.27	-12.40
91	2014/10/24	20:45:30	328.0000	5771.51	39.25	328.0000	5783.78	39.27	-12.27
92	2014/10/25	00:45:30	332.0000	5770.24	39.25	332.0000	5782.72	39.27	-12.48
93	2014/10/25	04:45:30	336.0000	5769.39	39.25	336.0000	5781.96	39.27	-12.57
94	2014/10/25	08:45:30	340.0000	5769.12	39.25	340.0000	5781.24	39.26	-12.12
95	2014/10/25	12:45:30	344.0000	5768.13	39.25	344.0000	5780.49	39.27	-12.36
96	2014/10/25	16:45:30	348.0000	5767.30	39.25	348.0000	5779.64	39.27	-12.35
97	2014/10/25	20:45:30	352.0000	5766.34	39.24	352.0000	5778.75	39.27	-12.42
98	2014/10/26	00:45:30	356.0000	5765.47	39.25	356.0000	5777.56	39.26	-12.09
99	2014/10/26	04:45:30	360.0000	5764.74	39.25	360.0000	5777.12	39.27	-12.39
100	2014/10/26	08:45:30	364.0000	5764.34	39.25	364.0000	5776.32	39.27	-11.98
101	2014/10/26	12:45:30	368.0000	5763.51	39.25	368.0000	5775.65	39.27	-12.14
102	2014/10/26	16:45:30	372.0000	5762.52	39.25	372.0000	5775.13	39.26	-12.61
103	2014/10/26	20:45:30	376.0000	5763.11	39.24	376.0000	5775.30	39.26	-12.19
104	2014/10/27	00:45:30	380.0000	5762.25	39.25	380.0000	5774.19	39.27	-11.94
105	2014/10/27	04:45:30	384.0000	5761.29	39.24	384.0000	5773.48	39.26	-12.19
106	2014/10/27	08:45:30	388.0000	5761.03	39.24	388.0000	5773.14	39.26	-12.11
107	2014/10/27	12:45:30	392.0000	5760.46	39.24	392.0000	5772.73	39.26	-12.27
108	2014/10/27	16:45:30	396.0000	5759.69	39.24	396.0000	5772.11	39.26	-12.42
109	2014/10/27	20:45:30	400.0000	5759.11	39.24	400.0000	5771.63	39.26	-12.52
110	2014/10/28	00:45:30	404.0000	5758.42	39.24	404.0000	5770.92	39.26	-12.50
111	2014/10/28	04:45:30	408.0000	5757.78	39.24	408.0000	5770.29	39.26	-12.51
112	2014/10/28	08:45:30	412.0000	5757.59	39.24	412.0000	5769.79	39.26	-12.20
113	2014/10/28	12:45:30	416.0000	5757.18	39.24	416.0000	5769.25	39.26	-12.07
114	2014/10/28	16:45:30	420.0000	5756.43	39.24	420.0000	5768.67	39.26	-12.24
115	2014/10/28	20:45:30	424.0000	5755.98	39.24	424.0000	5768.37	39.26	-12.39
116	2014/10/29	00:45:30	428.0000	5755.56	39.24	428.0000	5767.78	39.26	-12.22
117	2014/10/29	04:45:30	432.0000	5754.91	39.24	432.0000	5767.23	39.26	-12.32
118	2014/10/29	08:45:30	436.0000	5754.60	39.24	436.0000	5766.86	39.26	-12.26
119	2014/10/29	12:45:30	440.0000	5753.92	39.24	440.0000	5766.30	39.26	-12.38
120	2014/10/29	16:45:30	444.0000	5753.67	39.24	444.0000	5766.12	39.26	-12.45

LOWER Serial Number: 40610 Start Date: 2014/10/11 04:45:30 Run Depth: 1031.00
UPPER Serial Number: 40609 Start Date: 2014/10/11 04:45:30 Run Depth: 1031.00
Print Filter: Print every 4 hour

TUNDRA OIL & GAS PARTNERSHIP
102/01-19-003-28W1/00
Start Test Date: 2014/10/11
Final Test Date: 2014/11/09

NORTH PIERSON UNIT No.1 HZNTL 15B-17-1D-19-3-28
RESERVOIR PRESSURE SURV Formation: LODGEPOLE / ALIDA POROSITY
RECORDERS @ 1031 mKBMD (966.72 TVD)

	LOWER Date yyyy/mm/dd	LOWER Clk Time hh:mm:ss	LOWER Time hr	LOWER Pres. kPa(a)	LOWER Temp. °C	UPPER Time hr	UPPER Pres. kPa(a)	UPPER Temp. °C	Diff. G1 - G2 kPa
121	2014/10/29	20:45:30	448.0000	5753.54	39.24	448.0000	5765.84	39.26	-12.29
122	2014/10/30	00:45:30	452.0000	5753.17	39.24	452.0000	5765.35	39.26	-12.18
123	2014/10/30	04:45:30	456.0000	5752.67	39.24	456.0000	5764.91	39.26	-12.24
124	2014/10/30	08:45:30	460.0000	5752.38	39.24	460.0000	5764.62	39.26	-12.24
125	2014/10/30	12:45:30	464.0000	5752.19	39.24	464.0000	5764.49	39.26	-12.30
126	2014/10/30	16:45:30	468.0000	5751.94	39.24	468.0000	5764.09	39.26	-12.16
127	2014/10/30	20:45:30	472.0000	5751.46	39.24	472.0000	5763.94	39.25	-12.48
128	2014/10/31	00:45:30	476.0000	5751.01	39.24	476.0000	5763.42	39.26	-12.40
129	2014/10/31	04:45:30	480.0000	5750.87	39.24	480.0000	5763.12	39.26	-12.25
130	2014/10/31	08:45:30	484.0000	5750.26	39.24	484.0000	5762.76	39.25	-12.50
131	2014/10/31	12:45:30	488.0000	5750.18	39.24	488.0000	5762.49	39.26	-12.31
132	2014/10/31	16:45:30	492.0000	5749.90	39.24	492.0000	5762.15	39.25	-12.25
133	2014/10/31	20:45:30	496.0000	5749.51	39.24	496.0000	5761.93	39.25	-12.42
134	2014/11/01	00:45:30	500.0000	5749.07	39.23	500.0000	5761.39	39.25	-12.32
135	2014/11/01	04:45:30	504.0000	5749.03	39.23	504.0000	5761.09	39.26	-12.07
136	2014/11/01	08:45:30	508.0000	5748.25	39.23	508.0000	5760.52	39.25	-12.27
137	2014/11/01	12:45:30	512.0000	5747.94	39.23	512.0000	5760.33	39.25	-12.39
138	2014/11/01	16:45:30	516.0000	5747.90	39.23	516.0000	5760.21	39.25	-12.31
139	2014/11/01	20:45:30	520.0000	5747.59	39.24	520.0000	5759.88	39.25	-12.29
140	2014/11/02	00:45:30	524.0000	5747.04	39.23	524.0000	5759.38	39.25	-12.35
141	2014/11/02	04:45:30	528.0000	5747.05	39.23	528.0000	5759.24	39.25	-12.19
142	2014/11/02	08:45:30	532.0000	5746.72	39.23	532.0000	5758.87	39.25	-12.15
143	2014/11/02	12:45:30	536.0000	5746.31	39.23	536.0000	5758.81	39.25	-12.49
144	2014/11/02	16:45:30	540.0000	5746.51	39.23	540.0000	5758.64	39.25	-12.13
145	2014/11/02	20:45:30	544.0000	5746.01	39.23	544.0000	5758.47	39.25	-12.45
146	2014/11/03	00:45:30	548.0000	5745.76	39.23	548.0000	5758.17	39.25	-12.41
147	2014/11/03	04:45:30	552.0000	5745.76	39.23	552.0000	5758.19	39.25	-12.42
148	2014/11/03	08:45:30	556.0000	5745.53	39.23	556.0000	5757.83	39.25	-12.30
149	2014/11/03	12:45:30	560.0000	5745.57	39.23	560.0000	5757.67	39.25	-12.10
150	2014/11/03	16:45:30	564.0000	5745.35	39.23	564.0000	5757.81	39.25	-12.46
151	2014/11/03	20:45:30	568.0000	5745.00	39.23	568.0000	5757.32	39.25	-12.32
152	2014/11/04	00:45:30	572.0000	5744.64	39.23	572.0000	5757.09	39.25	-12.44
153	2014/11/04	04:45:30	576.0000	5744.74	39.23	576.0000	5757.01	39.25	-12.27
154	2014/11/04	08:45:30	580.0000	5744.66	39.23	580.0000	5756.92	39.25	-12.26
155	2014/11/04	12:45:30	584.0000	5744.39	39.23	584.0000	5756.73	39.25	-12.34
156	2014/11/04	16:45:30	588.0000	5744.27	39.23	588.0000	5756.53	39.25	-12.25
157	2014/11/04	20:45:30	592.0000	5743.98	39.23	592.0000	5756.36	39.25	-12.38
158	2014/11/05	00:45:30	596.0000	5743.70	39.23	596.0000	5756.03	39.25	-12.33
159	2014/11/05	04:45:30	600.0000	5744.01	39.23	600.0000	5756.04	39.25	-12.03
160	2014/11/05	08:45:30	604.0000	5743.71	39.23	604.0000	5756.10	39.25	-12.38

LOWER Serial Number: 40610 Start Date: 2014/10/11 04:45:30 Run Depth: 1031.00
UPPER Serial Number: 40609 Start Date: 2014/10/11 04:45:30 Run Depth: 1031.00
Print Filter: Print every 4 hour

TUNDRA OIL & GAS PARTNERSHIP
102/01-19-003-28W1/00
Start Test Date: 2014/10/11
Final Test Date: 2014/11/09

NORTH PIERSON UNIT No.1 HZNTL 15B-17-1D-19-3-28
RESERVOIR PRESSURE SURV Formation: LODGEPOLE / ALIDA POROSITY
RECORDERS @ 1031 mKBMD (966.72 TVD)

	LOWER Date yyyy/mm/dd	LOWER Clk Time hh:mm:ss	LOWER Time hr	LOWER Pres. kPa(a)	LOWER Temp. °C	UPPER Time hr	UPPER Pres. kPa(a)	UPPER Temp. °C	Diff. G1 - G2 kPa
161	2014/11/05	12:45:30	608.0000	5743.52	39.23	608.0000	5755.83	39.25	-12.32
162	2014/11/05	16:45:30	612.0000	5743.79	39.23	612.0000	5756.03	39.25	-12.24
163	2014/11/05	20:45:30	616.0000	5743.32	39.23	616.0000	5755.76	39.25	-12.44
164	2014/11/06	00:45:30	620.0000	5743.17	39.23	620.0000	5755.56	39.24	-12.39
165	2014/11/06	04:45:30	624.0000	5743.18	39.23	624.0000	5755.61	39.25	-12.43
166	2014/11/06	08:45:30	628.0000	5743.56	39.23	628.0000	5755.68	39.24	-12.12
167	2014/11/06	12:45:30	632.0000	5743.20	39.23	632.0000	5755.48	39.25	-12.28
168	2014/11/06	16:45:30	636.0000	5742.98	39.23	636.0000	5755.37	39.24	-12.39
169	2014/11/06	20:45:30	640.0000	5742.79	39.23	640.0000	5754.89	39.25	-12.10
170	2014/11/07	00:45:30	644.0000	5742.36	39.23	644.0000	5754.34	39.24	-11.98
171	2014/11/07	04:45:30	648.0000	5742.29	39.23	648.0000	5754.72	39.24	-12.42
172	2014/11/07	08:45:30	652.0000	5742.17	39.23	652.0000	5754.65	39.25	-12.48
173	2014/11/07	12:45:30	656.0000	5742.13	39.22	656.0000	5754.37	39.25	-12.24
174	2014/11/07	16:45:30	660.0000	5742.32	39.22	660.0000	5754.93	39.24	-12.61
175	2014/11/07	20:45:30	664.0000	5742.41	39.23	664.0000	5754.48	39.24	-12.06
176	2014/11/08	00:45:30	668.0000	5742.08	39.23	668.0000	5754.34	39.24	-12.26
177	2014/11/08	04:45:30	672.0000	5741.91	39.23	672.0000	5754.26	39.24	-12.35
178	2014/11/08	08:45:30	676.0000	5742.02	39.23	676.0000	5754.37	39.24	-12.36
179	2014/11/08	12:45:30	680.0000	5742.12	39.23	680.0000	5754.33	39.24	-12.21
180	2014/11/08	16:45:30	684.0000	5741.70	39.23	684.0000	5754.01	39.25	-12.31
181	2014/11/08	20:45:30	688.0000	5741.93	39.23	688.0000	5754.07	39.24	-12.15
182	2014/11/09	00:45:30	692.0000	5741.35	39.22	692.0000	5753.73	39.25	-12.38
183	2014/11/09	04:45:30	696.0000	5741.40	39.23	696.0000	5753.85	39.24	-12.45
184	2014/11/09	08:45:30	700.0000	5741.56	39.23	700.0000	5754.04	39.24	-12.48
185	2014/11/09	12:45:30	704.0000	5741.42	39.23	704.0000	5753.76	39.24	-12.35
186	2014/11/09	13:27:00	704.6917	5741.31	39.23	704.6917	5753.68	39.24	-12.37
187	2014/11/09	13:27:00	704.6917	FINAL PRESSURE, UNSETTING BRIDGE PLUG					
188	2014/11/09	13:27:30	704.7000	5789.70	39.23	704.7000	5753.69	39.24	36.02
189	2014/11/09	13:28:00	704.7083	9599.44	39.02	704.7083	9569.29	39.16	30.15
190	2014/11/09	13:28:00	704.7083	BRIDGE PLUG IS UNSET					
191	2014/11/09	13:28:30	704.7167	9650.76	37.81	704.7167	9659.41	38.07	-8.65
192	2014/11/09	13:43:30	704.9667	9227.79	33.57	704.9667	8900.91	33.47	326.88
193	2014/11/09	13:43:30	704.9667	PULL OUT OF HOLE WITH TOOLS					
194	2014/11/09	13:44:00	704.9750	8728.86	33.53	704.9750	9077.16	33.47	-348.30
195	2014/11/09	14:50:30	706.0833	104.56	17.75	706.0833	117.15	18.29	-12.59
196	2014/11/09	14:50:30	706.0833	RECORDERS AT SURFACE					
197	2014/11/09	14:51:00	706.0917	104.48	17.33	706.0917	117.50	17.93	-13.02
198	2014/11/09	14:57:00	706.1917	105.35	16.25	706.1917	119.65	16.96	-14.30

LOWER Serial Number: 40610 Start Date: 2014/10/11 04:45:30 Run Depth: 1031.00
UPPER Serial Number: 40609 Start Date: 2014/10/11 04:45:30 Run Depth: 1031.00
Print Filter: Print every 4 hour



DATE: October 11 th - November 9 th , 2014	COMPANY: Tundra Oil & Gas Partnership
WELLNAME: North Pierson Unit #1	ADDRESS: Virden, MB
LOCATION: 15-17-1-19-3-28 W1	UWI: 102.01-19-003-28W1.00
FIELD: North Pierson Unit #1	FORMATION: Lodgepole - Alida Porosity
CO HQ REP: Craig [REDACTED]	PHONE: 1204 748 4409
FIELD REP: Brent [REDACTED]	PHONE: 1204 851 5013
REPORTS TO (NAME & EMAIL ADDRESS): brett.howell@tundraoilandgas.com chris.perkins@tundraoilandgas.com robert.prefontaine@tundraoilandgas.com adam.berke@tundraoilandgas.com shirley.angus@tundraoilandgas.com allan.bertram@tundraoilandgas.com bill.jenkins@tundraoilandgas.com chris.perkins@tundraoilandgas.com craig.lane@tundraoilandgas.com eric.bjornsson@tundraoilandgas.com jane.mctaggart@tundraoilandgas.com anh.hgyen@tundraoilandgas.com justin.robertson@tundraoilandgas.com andrew.taylor@tundraoilandgas.com tim.howell@tundraoilandgas.com tyler.routledge@tundraoilandgas.com	

STATUS: Completion		TEST TYPE: Bridge Plug
ESTIMATED H2S CONTENT: <10 ppm		ESTIMATED CO2 CONTENT: <10 ppm
PRODUCING THROUGH: Tubing		SHUT IN TIME/DATE: See Discription
KOP: 770 mKB	TVD: See Survey	LICENCE #: 9821
PBTD: N/A	TD: Leg #1 - 2216 mKB Leg #2 - 2262 mKB	WELL TYPE: Horizontal
CASING SIZE: 177.8 mm	CSG WEIGHT: 34.23 / 29.76 kg/m	CSG DEPTH: 1075 mKB
TUBING SIZE: N/A	TBG WEIGHT: N/A	TBG DEPTH: N/A
Elevations KB: 471.71 mKB	GRD: 467.61 mKB	CF: 4.10 mKB

PRODUCING INTERVAL

TYPE: Open Hole	SIZE: N/A	INTERVAL: 1075 - 2262 mKB Tangent Section: 1021 - 1030 mKB
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RECORDER INFORMATION

TOP S/N: 40609	FILE NAME: 15-17-1-19-3-28 W1	RANGE: 20,680 kPa
BOTTOM S/N: 40610	FILE NAME: 15-17-1-19-3-28 W1	RANGE: 20,680 kPa
TOP BATTERY S/N: N/A	BOTTOM BATTERY S/N: N/A	
CONNECT TIME: October 11 th , 2014 04:45:30	DISCONNECT TIME: November 9 th , 2014 13:57:30	

SURFACE TEMP: -10 C	LEASE CONDITION: Good
WIRELINE OPERATOR: Ivory [REDACTED]	PHONE: 1306 461 9504
WIRELINE ASSISSTANT: N/A	
DIRECTIONS: N/A	

DWG WELL HEAD PRESSURES:

TUBING (before survey): N/A	CASING (before survey): N/A
TUBING (after survey): N/A	CASING (after survey): N/A

FLUID LEVEL: N/A	RUN DEPTH: N/A
TIME ON BOTTOM: N/A	TIME OFF BOTTOM: N/A

GRADIENT STOPS

DEPTH mKB:	N/A	FROM:	N/A	UNTIL:	N/A
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COMMENTS: Tools were ran in the well by a drilling rig to collect the BHP + BHT below a bridge plug. Tools were then pulled by a service rig.

DESCRIPTION OF WORK DONE:

Tools were ran in the well by a drilling rig to collect the BHP + BHT below a a bridge plug. Tools were then pulled by a service rig.

October 11th, 2014

04:45:30 - RIH

05:50:30 - On bottom

05:52:00 - Bridge plug set @1030 mKB Recorders @1031 mKB

November 9th, 2014

12:27:30 - FINAL STABLE BHP + BHT

12:28:00 - Bridge plug un-set

12:43:30 - POOH

13:50:30 - Surface

13:57:30 - Download data



TUNDRA OIL & GAS PARTNERSHIP

NORTH PIERSON UNIT #1 HZNTL 1A-21-3-28

103/01-21-003-28W1/0

LICENSE #: 9822

BAKKEN FORMATION

RESERVOIR PRESSURE SURVEY TEST DATA

SEPTEMBER 27th - NOVEMBER 5th, 2014

Prepared by: **DOLLCO Well Data Services**

e-mail: dollco@shaw.ca

PO Box 326
417A Mississippian Drive
Esteron, SK
S4A 2A4

Cell: (306) 421 - 7330
Fax: (306) 634 - 7976
Res: (306) 634 - 8761

E-mail: qualityw@sasktel.net

Pressure Survey Report

Company Information

Company Name	TUNDRA OIL & GAS PARTNERSHIP
Contact	CRAIG [REDACTED]
e-mail	craig.lane@tundraoilandgas.com
Phone	(306) 748-4409
Site Contact	BRENT FLANNERY
Site Phone	(204) 851-5013

Well Information

Well Name	NORTH PIERSON UNIT #1 HZNTL 1A-21-3-28
Unique Well ID	103/01-21-003-28W1/00
Surface Location	1-20 / 1-21-3-28W1
Well License Number	9822
Well Type	Horizontal
Well Fluid Type	01 Oil
Field	NORTH PIERSON

KB Elevation (SL)	471.30 m
CF Elevation (SL)	467.20 m
GL Elevation (SL)	467.20 m
Distance from KB to CF (Log)	4.10 m
KB-GL Offset	4.10 m

Tubing ID	mm
Tubing OD	mm
Tubing Depth(Log KB)	m
Tubing Depth(TVD KB)	m
Casing ID	mm
Casing OD	177.8 mm
Casing Depth(Log KB)	1103.00000 m
Casing Depth(TVD KB)	975.47000 m
PBTD(Log KB)	m
PBTD(TVD KB)	m

Pressure Survey Report

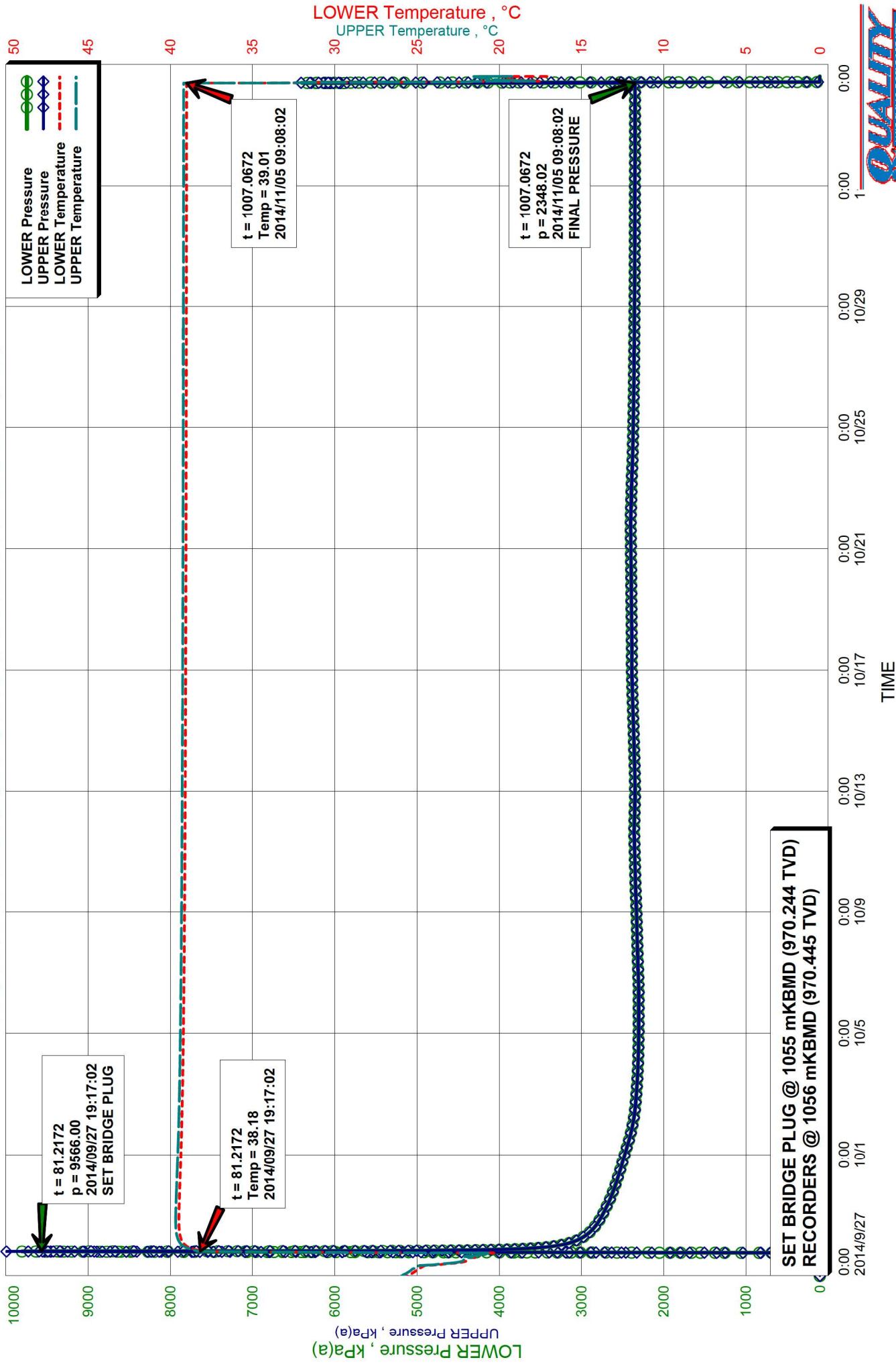
Test Information

Well Name	NORTH PIERSON UNIT #1 HZNTL 1A-21-3-28
Unique Well ID	103/01-21-003-28W1/00
Surface Location	1-20 / 1-21-3-28W1
Well License Number	9822
Well Fluid Type	01 Oil
Test Purpose	Initial Test
Test Type	RESERVOIR PRESSURE SURVEY
Formation	BAKKEN
Well Type Indicator	Horizontal
Test/Prod. Interval Top KB (Log)	1103.00 m
Test/Prod. Interval Base KB (Log)	2545.00 m
MPP(Log KB)	1824.00 m
Test/Prod Interval Top KB (TVD)	975.47 m
Test/Prod. Interval Base m KB (TVD)	972.28 m
MPP(TVD KB)	973.88 m
Tubing Pressure Initial	kPa(a)
Casing Pressure Initial	kPa(a)
Tubing Pressure: Final	kPa(a)
Casing Pressure: Final	kPa(a)
Time/Date Well Shut-In	2014/09/27 19:17:02
Final Test Date/Time	2014/11/05 09:08:02
Gauge Serial Number Used in Summary	2653
Last Measured Pressure at Run Depth	2348.02 kPa(a)
Reservoir Temperature	39.01 °C
Service Company	Quality Wireline Services Ltd.
Representative	IVORY [REDACTED]
Prepared By	DOLLCO Well Data Services
Qualified By	RICK DOLL
Report Date	2014/11/06

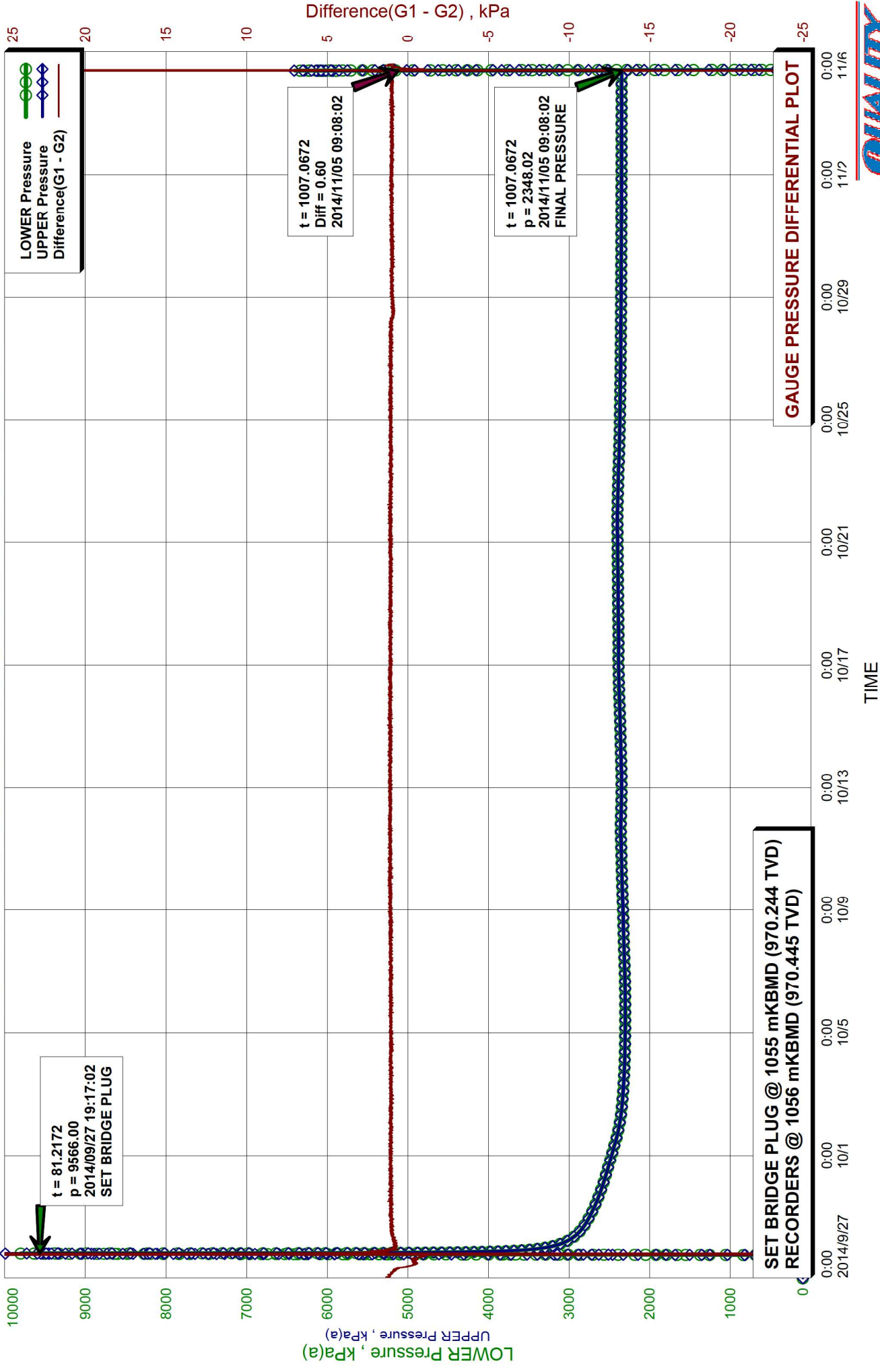
THESE RECORDERS WERE RUN BELOW A BRIDGE PLUG



NORTH PIERSON UNIT #1 HZNTL 1A-21-3-28



NORTH PIERSON UNIT #1 HZNTL 1A-21-3-28



Recorder Information

Company Name	TUNDRA OIL & GAS PARTNERSHIP
Unique Well ID	103/01-21-003-28W1/00
Well Name	NORTH PIERSON UNIT #1 HZNTL 1A-21-3-28
Formation	BAKKEN
Start Test Date	2014/09/27
Final Test Date	2014/11/05

Gauge 1

Gauge Name	LOWER	Gauge Type	ELECTRONIC
Gauge Serial Number	2653	Gauge Manufacturer	PIONEER PETROTECH SERVICES
Run Depth (Log KB)	1056.00 m	Gauge Model	SILICON SAPPHIRE
Date of Last Calibration	2013/12/06	Maximum Recorder Range	20680.00 kPa
Gauge Start Date	2014/09/24	Gauge Start Time	10:04:00
Gauge Stop Date	2014/11/05	Gauge Stop Time	14:25:02
Date Gauge On Bottom	2014/09/27	Time Gauge On Bottom	19:07:02
Date Gauge Off Bottom	2014/11/05	Time Gauge Off Bottom	09:39:32

Gauge 2

Gauge Name	UPPER	Gauge Type	ELECTRONIC
Gauge Serial Number	2612	Gauge Manufacturer	PIONEER PETROTECH SERVICES
Run Depth (Log KB)	1056.00 m	Gauge Model	SILICON SAPPHIRE
Date of Last Calibration	2013/12/06	Maximum Recorder Range	20680.00 kPa
Gauge Start Date	2014/09/24	Gauge Start Time	10:04:00
Gauge Stop Date	2014/11/05	Gauge Stop Time	14:25:02
Date Gauge On Bottom	2014/09/27	Time Gauge On Bottom	19:07:02
Date Gauge Off Bottom	2014/11/05	Time Gauge Off Bottom	09:39:32

TUNDRA OIL & GAS PARTNERSHIP
103/01-21-003-28W1/00
Start Test Date: 2014/09/27
Final Test Date: 2014/11/05

NORTH PIERSON UNIT #1 HZNTL 1A-21-3-28
Formation: BAKKEN

RESERVOIR PRESSURE SURVEY
RECORDERS @ 1056 mKBMD (970.445 TVD)

	LOWER Date yyyy/mm/dd	LOWER Clk Time hh:mm:ss	LOWER Time hr	LOWER Pres. kPa(a)	LOWER Temp. °C	UPPER Time hr	UPPER Pres. kPa(a)	UPPER Temp. °C	Diff. G1 - G2 kPa
1	2014/09/24	10:04:01	0.0003	101.56	24.55	0.0003	101.03	25.02	0.54
2	2014/09/24	10:04:01	0.0003	ACTIVATE RECORDERS S/N: 2653(L) & 2612(U)					
3	2014/09/24	10:04:02	0.0006	101.55	24.60	0.0006	101.03	25.05	0.52
4	2014/09/24	14:04:02	4.0006	101.78	21.16	4.0006	99.75	21.72	2.03
5	2014/09/24	18:04:02	8.0006	102.35	22.55	8.0006	100.17	23.40	2.18
6	2014/09/24	22:04:02	12.0006	101.99	22.55	12.0006	99.87	23.25	2.12
7	2014/09/25	02:04:32	16.0089	101.59	22.27	16.0089	99.64	22.86	1.95
8	2014/09/25	06:04:32	20.0089	101.20	21.95	20.0089	99.44	22.48	1.76
9	2014/09/25	10:04:32	24.0089	101.40	22.54	24.0089	99.81	22.98	1.59
10	2014/09/25	14:04:32	28.0089	102.74	25.43	28.0089	100.15	26.46	2.59
11	2014/09/25	18:04:32	32.0089	103.05	27.27	32.0089	100.07	28.47	2.98
12	2014/09/25	22:04:32	36.0089	101.35	25.37	36.0089	98.99	25.78	2.36
13	2014/09/26	02:04:32	40.0089	100.89	24.82	40.0089	99.20	25.17	1.69
14	2014/09/26	06:04:32	44.0089	100.60	24.43	44.0089	98.89	24.76	1.71
15	2014/09/26	10:04:32	48.0089	100.24	23.92	48.0089	98.89	24.21	1.35
16	2014/09/26	14:04:32	52.0089	101.14	25.61	52.0089	99.76	26.19	1.39
17	2014/09/26	18:04:32	56.0089	101.54	27.00	56.0089	99.54	27.63	2.00
18	2014/09/26	22:04:32	60.0089	100.67	25.77	60.0089	99.27	26.15	1.40
19	2014/09/27	02:04:32	64.0089	100.44	25.27	64.0089	99.28	25.62	1.17
20	2014/09/27	06:04:32	68.0089	100.21	24.80	68.0089	99.33	25.13	0.89
21	2014/09/27	10:04:32	72.0089	99.26	22.56	72.0089	99.55	22.80	-0.30
22	2014/09/27	14:04:32	76.0089	99.37	21.82	76.0089	99.63	22.06	-0.25
23	2014/09/27	17:39:02	79.5839	99.37	20.59	79.5839	100.26	20.65	-0.89
24	2014/09/27	17:39:02	79.5839	RUN IN HOLE WITH RECORDERS BELOW BRIDGE PLUG					
25	2014/09/27	17:39:32	79.5922	99.38	20.57	79.5922	100.27	20.64	-0.89
26	2014/09/27	18:04:32	80.0089	1553.46	26.98	80.0089	1504.68	27.04	48.77
27	2014/09/27	19:07:02	81.0506	9558.96	37.97	81.0506	9728.40	38.19	-169.44
28	2014/09/27	19:07:02	81.0506	RECORDERS ON BOTTOM @ 1056 mKBMD (970.445 TVD)					
29	2014/09/27	19:07:32	81.0589	9554.07	38.00	81.0589	9596.08	38.20	-42.01
30	2014/09/27	19:17:02	81.2172	9566.00	38.18	81.2172	9537.67	38.39	28.33
31	2014/09/27	19:17:02	81.2172	BRIDGE PLUG SET @ 1055 mKBMD (970.244 TVD)					
32	2014/09/27	19:17:32	81.2256	9381.68	38.18	81.2256	9343.25	38.40	38.43
33	2014/09/27	22:04:32	84.0089	3518.65	38.82	84.0089	3517.36	39.01	1.30
34	2014/09/28	02:04:32	88.0089	3140.11	39.22	88.0089	3139.35	39.42	0.76
35	2014/09/28	06:04:32	92.0089	2993.43	39.37	92.0089	2992.57	39.57	0.86
36	2014/09/28	10:04:32	96.0089	2906.07	39.44	96.0089	2905.16	39.63	0.91
37	2014/09/28	14:04:32	100.0089	2845.84	39.47	100.0089	2844.80	39.66	1.04
38	2014/09/28	18:04:32	104.0089	2800.01	39.48	104.0089	2798.92	39.68	1.09
39	2014/09/28	22:04:32	108.0089	2762.37	39.48	108.0089	2761.43	39.68	0.93
40	2014/09/29	02:04:32	112.0089	2728.92	39.47	112.0089	2727.87	39.67	1.05

LOWER Serial Number: 2653 Start Date: 2014/09/24 10:04:00 Run Depth: 1056.00
UPPER Serial Number: 2612 Start Date: 2014/09/24 10:04:00 Run Depth: 1056.00
Print Filter: Print every 4 hour

	LOWER Date yyyy/mm/dd	LOWER Clk Time hh:mm:ss	LOWER Time hr	LOWER Pres. kPa(a)	LOWER Temp. °C	UPPER Time hr	UPPER Pres. kPa(a)	UPPER Temp. °C	Diff. G1 - G2 kPa
41	2014/09/29	06:04:32	116.0089	2698.74	39.47	116.0089	2697.80	39.66	0.94
42	2014/09/29	10:04:32	120.0089	2669.13	39.46	120.0089	2668.17	39.65	0.96
43	2014/09/29	14:04:32	124.0089	2642.10	39.44	124.0089	2640.98	39.64	1.11
44	2014/09/29	18:04:32	128.0089	2618.75	39.43	128.0089	2617.71	39.63	1.05
45	2014/09/29	22:04:32	132.0089	2596.15	39.42	132.0089	2595.09	39.62	1.06
46	2014/09/30	02:04:32	136.0089	2575.20	39.41	136.0089	2574.08	39.61	1.12
47	2014/09/30	06:04:32	140.0089	2555.28	39.40	140.0089	2554.20	39.60	1.07
48	2014/09/30	10:04:32	144.0089	2536.55	39.39	144.0089	2535.43	39.59	1.12
49	2014/09/30	14:04:32	148.0089	2516.43	39.38	148.0089	2515.35	39.57	1.08
50	2014/09/30	18:04:32	152.0089	2500.25	39.37	152.0089	2499.25	39.56	1.01
51	2014/09/30	22:04:32	156.0089	2482.99	39.36	156.0089	2481.87	39.55	1.12
52	2014/10/01	02:04:32	160.0089	2465.06	39.35	160.0089	2463.99	39.54	1.08
53	2014/10/01	06:04:32	164.0089	2447.08	39.34	164.0089	2446.05	39.53	1.03
54	2014/10/01	10:04:32	168.0089	2428.63	39.34	168.0089	2427.59	39.52	1.04
55	2014/10/01	14:04:32	172.0089	2411.42	39.32	172.0089	2410.40	39.51	1.02
56	2014/10/01	18:04:32	176.0089	2396.06	39.32	176.0089	2394.95	39.50	1.11
57	2014/10/01	22:04:32	180.0089	2382.60	39.31	180.0089	2381.58	39.49	1.02
58	2014/10/02	02:04:32	184.0089	2370.74	39.30	184.0089	2369.69	39.48	1.05
59	2014/10/02	06:04:32	188.0089	2360.60	39.29	188.0089	2359.53	39.48	1.07
60	2014/10/02	10:04:32	192.0089	2352.13	39.29	192.0089	2351.03	39.47	1.11
61	2014/10/02	14:04:32	196.0089	2345.26	39.28	196.0089	2344.22	39.46	1.04
62	2014/10/02	18:04:32	200.0089	2339.42	39.28	200.0089	2338.35	39.46	1.07
63	2014/10/02	22:04:32	204.0089	2334.35	39.27	204.0089	2333.28	39.45	1.07
64	2014/10/03	02:04:32	208.0089	2329.81	39.26	208.0089	2328.79	39.44	1.02
65	2014/10/03	06:04:32	212.0089	2325.61	39.26	212.0089	2324.61	39.44	1.00
66	2014/10/03	10:04:32	216.0089	2321.74	39.25	216.0089	2320.70	39.43	1.04
67	2014/10/03	14:04:32	220.0089	2318.53	39.25	220.0089	2317.48	39.43	1.06
68	2014/10/03	18:04:32	224.0089	2315.39	39.24	224.0089	2314.33	39.42	1.07
69	2014/10/03	22:04:32	228.0089	2312.82	39.23	228.0089	2311.76	39.42	1.07
70	2014/10/04	02:04:32	232.0089	2310.81	39.23	232.0089	2309.76	39.41	1.05
71	2014/10/04	06:04:32	236.0089	2309.10	39.22	236.0089	2308.01	39.41	1.09
72	2014/10/04	10:04:32	240.0089	2307.74	39.22	240.0089	2306.68	39.40	1.05
73	2014/10/04	14:04:32	244.0089	2306.46	39.22	244.0089	2305.42	39.40	1.04
74	2014/10/04	18:04:32	248.0089	2305.57	39.21	248.0089	2304.50	39.39	1.07
75	2014/10/04	22:04:32	252.0089	2304.70	39.21	252.0089	2303.65	39.39	1.05
76	2014/10/05	02:04:32	256.0089	2304.13	39.20	256.0089	2303.04	39.39	1.09
77	2014/10/05	06:04:32	260.0089	2304.07	39.20	260.0089	2302.98	39.38	1.10
78	2014/10/05	10:04:32	264.0089	2304.03	39.20	264.0089	2302.96	39.38	1.07
79	2014/10/05	14:04:32	268.0089	2303.85	39.19	268.0089	2302.79	39.38	1.06
80	2014/10/05	18:04:32	272.0089	2304.12	39.19	272.0089	2303.01	39.37	1.11

LOWER Serial Number: 2653 Start Date: 2014/09/24 10:04:00 Run Depth: 1056.00

UPPER Serial Number: 2612 Start Date: 2014/09/24 10:04:00 Run Depth: 1056.00

Print Filter: Print every 4 hour

	LOWER Date yyyy/mm/dd	LOWER Clk Time hh:mm:ss	LOWER Time hr	LOWER Pres. kPa(a)	LOWER Temp. °C	UPPER Time hr	UPPER Pres. kPa(a)	UPPER Temp. °C	Diff. G1 - G2 kPa
81	2014/10/05	22:04:32	276.0089	2304.14	39.19	276.0089	2303.09	39.37	1.06
82	2014/10/06	02:04:32	280.0089	2304.24	39.18	280.0089	2303.20	39.36	1.04
83	2014/10/06	06:04:32	284.0089	2304.45	39.18	284.0089	2303.39	39.36	1.05
84	2014/10/06	10:04:32	288.0089	2304.68	39.17	288.0089	2303.61	39.36	1.06
85	2014/10/06	14:04:32	292.0089	2305.58	39.17	292.0089	2304.58	39.36	1.00
86	2014/10/06	18:04:32	296.0089	2307.10	39.17	296.0089	2305.99	39.35	1.10
87	2014/10/06	22:04:32	300.0089	2309.18	39.17	300.0089	2308.07	39.35	1.11
88	2014/10/07	02:04:32	304.0089	2311.01	39.16	304.0089	2309.92	39.35	1.09
89	2014/10/07	06:04:32	308.0089	2313.05	39.16	308.0089	2312.01	39.34	1.04
90	2014/10/07	10:04:32	312.0089	2314.79	39.16	312.0089	2313.74	39.34	1.05
91	2014/10/07	14:04:32	316.0089	2316.58	39.16	316.0089	2315.53	39.34	1.05
92	2014/10/07	18:04:32	320.0089	2318.37	39.15	320.0089	2317.31	39.34	1.05
93	2014/10/07	22:04:32	324.0089	2320.38	39.15	324.0089	2319.28	39.33	1.10
94	2014/10/08	02:04:32	328.0089	2322.27	39.15	328.0089	2321.16	39.33	1.10
95	2014/10/08	06:04:32	332.0089	2323.90	39.15	332.0089	2322.78	39.33	1.12
96	2014/10/08	10:04:32	336.0089	2325.70	39.14	336.0089	2324.63	39.32	1.08
97	2014/10/08	14:04:32	340.0089	2327.12	39.14	340.0089	2326.04	39.32	1.08
98	2014/10/08	18:04:32	344.0089	2328.26	39.14	344.0089	2327.26	39.32	1.01
99	2014/10/08	22:04:32	348.0089	2329.88	39.14	348.0089	2328.83	39.32	1.06
100	2014/10/09	02:04:32	352.0089	2332.00	39.13	352.0089	2330.87	39.32	1.13
101	2014/10/09	06:04:32	356.0089	2334.45	39.13	356.0089	2333.40	39.31	1.05
102	2014/10/09	10:04:32	360.0089	2336.79	39.13	360.0089	2335.64	39.31	1.16
103	2014/10/09	14:04:32	364.0089	2338.88	39.13	364.0089	2337.80	39.31	1.09
104	2014/10/09	18:04:32	368.0089	2340.92	39.12	368.0089	2339.86	39.31	1.07
105	2014/10/09	22:04:32	372.0089	2342.85	39.12	372.0089	2341.73	39.31	1.11
106	2014/10/10	02:04:32	376.0089	2344.31	39.12	376.0089	2343.37	39.30	0.95
107	2014/10/10	06:04:32	380.0089	2345.98	39.12	380.0089	2344.83	39.30	1.15
108	2014/10/10	10:04:32	384.0089	2347.56	39.12	384.0089	2346.44	39.30	1.12
109	2014/10/10	14:04:32	388.0089	2349.15	39.12	388.0089	2348.05	39.30	1.10
110	2014/10/10	18:04:32	392.0089	2350.68	39.12	392.0089	2349.57	39.30	1.10
111	2014/10/10	22:04:32	396.0089	2352.13	39.11	396.0089	2351.04	39.30	1.09
112	2014/10/11	02:04:32	400.0089	2353.62	39.11	400.0089	2352.45	39.29	1.18
113	2014/10/11	06:04:32	404.0089	2355.24	39.11	404.0089	2354.11	39.29	1.13
114	2014/10/11	10:04:32	408.0089	2357.00	39.11	408.0089	2355.87	39.29	1.13
115	2014/10/11	14:04:32	412.0089	2358.61	39.11	412.0089	2357.53	39.29	1.08
116	2014/10/11	18:04:32	416.0089	2358.56	39.11	416.0089	2357.40	39.29	1.17
117	2014/10/11	22:04:32	420.0089	2357.13	39.10	420.0089	2355.97	39.29	1.16
118	2014/10/12	02:04:32	424.0089	2355.34	39.10	424.0089	2354.29	39.29	1.05
119	2014/10/12	06:04:32	428.0089	2353.85	39.10	428.0089	2352.78	39.28	1.07
120	2014/10/12	10:04:32	432.0089	2352.32	39.10	432.0089	2351.23	39.28	1.08

LOWER Serial Number: 2653 Start Date: 2014/09/24 10:04:00 Run Depth: 1056.00

UPPER Serial Number: 2612 Start Date: 2014/09/24 10:04:00 Run Depth: 1056.00

Print Filter: Print every 4 hour

	LOWER Date yyyy/mm/dd	LOWER Clk Time hh:mm:ss	LOWER Time hr	LOWER Pres. kPa(a)	LOWER Temp. °C	UPPER Time hr	UPPER Pres. kPa(a)	UPPER Temp. °C	Diff. G1 - G2 kPa
121	2014/10/12	14:04:32	436.0089	2350.93	39.10	436.0089	2349.81	39.28	1.11
122	2014/10/12	18:04:32	440.0089	2349.31	39.10	440.0089	2348.26	39.28	1.05
123	2014/10/12	22:04:32	444.0089	2348.70	39.09	444.0089	2347.59	39.28	1.11
124	2014/10/13	02:04:32	448.0089	2348.91	39.09	448.0089	2347.80	39.27	1.11
125	2014/10/13	06:04:32	452.0089	2349.32	39.09	452.0089	2348.25	39.27	1.08
126	2014/10/13	10:04:32	456.0089	2349.88	39.09	456.0089	2348.75	39.27	1.14
127	2014/10/13	14:04:32	460.0089	2351.24	39.09	460.0089	2350.16	39.27	1.07
128	2014/10/13	18:04:32	464.0089	2353.23	39.09	464.0089	2352.09	39.27	1.13
129	2014/10/13	22:04:32	468.0089	2354.97	39.09	468.0089	2353.91	39.27	1.06
130	2014/10/14	02:04:32	472.0089	2356.71	39.09	472.0089	2355.60	39.27	1.10
131	2014/10/14	06:04:32	476.0089	2358.31	39.09	476.0089	2357.20	39.27	1.11
132	2014/10/14	10:04:32	480.0089	2359.92	39.09	480.0089	2358.80	39.26	1.12
133	2014/10/14	14:04:32	484.0089	2361.48	39.08	484.0089	2360.31	39.26	1.17
134	2014/10/14	18:04:32	488.0089	2363.00	39.08	488.0089	2361.83	39.26	1.16
135	2014/10/14	22:04:32	492.0089	2364.58	39.08	492.0089	2363.47	39.26	1.12
136	2014/10/15	02:04:32	496.0089	2366.22	39.08	496.0089	2365.09	39.26	1.13
137	2014/10/15	06:04:32	500.0089	2368.20	39.08	500.0089	2367.08	39.26	1.12
138	2014/10/15	10:04:32	504.0089	2370.47	39.08	504.0089	2369.40	39.26	1.07
139	2014/10/15	14:04:32	508.0089	2372.53	39.07	508.0089	2371.44	39.26	1.08
140	2014/10/15	18:04:32	512.0089	2374.46	39.08	512.0089	2373.40	39.26	1.06
141	2014/10/15	22:04:32	516.0089	2376.56	39.07	516.0089	2375.52	39.26	1.04
142	2014/10/16	02:04:32	520.0089	2378.49	39.07	520.0089	2377.40	39.25	1.09
143	2014/10/16	06:04:32	524.0089	2380.29	39.07	524.0089	2379.15	39.25	1.14
144	2014/10/16	10:04:32	528.0089	2382.02	39.07	528.0089	2380.92	39.25	1.10
145	2014/10/16	14:04:32	532.0089	2383.42	39.07	532.0089	2382.34	39.25	1.07
146	2014/10/16	18:04:32	536.0089	2384.69	39.07	536.0089	2383.55	39.25	1.13
147	2014/10/16	22:04:32	540.0089	2385.86	39.07	540.0089	2384.80	39.25	1.05
148	2014/10/17	02:04:32	544.0089	2386.91	39.07	544.0089	2385.81	39.25	1.10
149	2014/10/17	06:04:32	548.0089	2387.64	39.07	548.0089	2386.57	39.25	1.07
150	2014/10/17	10:04:32	552.0089	2387.06	39.06	552.0089	2386.03	39.24	1.03
151	2014/10/17	14:04:32	556.0089	2386.84	39.06	556.0089	2385.73	39.24	1.12
152	2014/10/17	18:04:32	560.0089	2387.00	39.06	560.0089	2385.84	39.24	1.15
153	2014/10/17	22:04:32	564.0089	2387.20	39.06	564.0089	2386.17	39.24	1.03
154	2014/10/18	02:04:32	568.0089	2387.80	39.06	568.0089	2386.70	39.24	1.10
155	2014/10/18	06:04:32	572.0089	2388.53	39.06	572.0089	2387.41	39.24	1.11
156	2014/10/18	10:04:32	576.0089	2389.25	39.06	576.0089	2388.20	39.24	1.05
157	2014/10/18	14:04:32	580.0089	2390.04	39.06	580.0089	2388.96	39.24	1.08
158	2014/10/18	18:04:32	584.0089	2390.74	39.06	584.0089	2389.63	39.24	1.11
159	2014/10/18	22:04:32	588.0089	2391.42	39.05	588.0089	2390.36	39.24	1.07
160	2014/10/19	02:04:32	592.0089	2391.95	39.06	592.0089	2390.86	39.24	1.09

LOWER Serial Number: 2653 Start Date: 2014/09/24 10:04:00 Run Depth: 1056.00

UPPER Serial Number: 2612 Start Date: 2014/09/24 10:04:00 Run Depth: 1056.00

Print Filter: Print every 4 hour

	LOWER Date yyyy/mm/dd	LOWER Clk Time hh:mm:ss	LOWER Time hr	LOWER Pres. kPa(a)	LOWER Temp. °C	UPPER Time hr	UPPER Pres. kPa(a)	UPPER Temp. °C	Diff. G1 - G2 kPa
161	2014/10/19	06:04:32	596.0089	2392.42	39.05	596.0089	2391.37	39.24	1.04
162	2014/10/19	10:04:32	600.0089	2392.87	39.05	600.0089	2391.77	39.24	1.10
163	2014/10/19	14:04:32	604.0089	2393.31	39.06	604.0089	2392.22	39.24	1.09
164	2014/10/19	18:04:32	608.0089	2393.84	39.05	608.0089	2392.78	39.23	1.07
165	2014/10/19	22:04:32	612.0089	2394.47	39.05	612.0089	2393.41	39.23	1.06
166	2014/10/20	02:04:32	616.0089	2395.13	39.05	616.0089	2394.05	39.23	1.08
167	2014/10/20	06:04:32	620.0089	2395.75	39.05	620.0089	2394.74	39.23	1.02
168	2014/10/20	10:04:32	624.0089	2396.44	39.05	624.0089	2395.38	39.23	1.06
169	2014/10/20	14:04:32	628.0089	2397.17	39.05	628.0089	2396.10	39.23	1.08
170	2014/10/20	18:04:32	632.0089	2397.80	39.05	632.0089	2396.69	39.23	1.11
171	2014/10/20	22:04:32	636.0089	2398.26	39.05	636.0089	2397.13	39.23	1.13
172	2014/10/21	02:04:32	640.0089	2398.58	39.05	640.0089	2397.56	39.23	1.02
173	2014/10/21	06:04:32	644.0089	2399.18	39.05	644.0089	2398.09	39.23	1.09
174	2014/10/21	10:04:32	648.0089	2399.76	39.04	648.0089	2398.68	39.23	1.07
175	2014/10/21	14:04:32	652.0089	2400.27	39.05	652.0089	2399.21	39.23	1.06
176	2014/10/21	18:04:32	656.0089	2400.67	39.04	656.0089	2399.61	39.23	1.06
177	2014/10/21	22:04:32	660.0089	2400.25	39.04	660.0089	2399.22	39.22	1.04
178	2014/10/22	02:04:32	664.0089	2399.23	39.04	664.0089	2398.13	39.22	1.09
179	2014/10/22	06:04:32	668.0089	2397.98	39.04	668.0089	2396.78	39.22	1.20
180	2014/10/22	10:04:32	672.0089	2396.16	39.04	672.0089	2395.01	39.22	1.15
181	2014/10/22	14:04:32	676.0089	2394.33	39.04	676.0089	2393.28	39.22	1.04
182	2014/10/22	18:04:32	680.0089	2392.69	39.04	680.0089	2391.66	39.22	1.03
183	2014/10/22	22:04:32	684.0089	2391.10	39.04	684.0089	2390.07	39.22	1.02
184	2014/10/23	02:04:32	688.0089	2389.76	39.04	688.0089	2388.75	39.22	1.01
185	2014/10/23	06:04:32	692.0089	2388.87	39.04	692.0089	2387.79	39.22	1.08
186	2014/10/23	10:04:32	696.0089	2387.01	39.04	696.0089	2385.99	39.22	1.02
187	2014/10/23	14:04:32	700.0089	2383.60	39.04	700.0089	2382.56	39.22	1.04
188	2014/10/23	18:04:32	704.0089	2381.03	39.04	704.0089	2379.97	39.22	1.06
189	2014/10/23	22:04:32	708.0089	2379.14	39.04	708.0089	2378.10	39.22	1.03
190	2014/10/24	02:04:32	712.0089	2377.41	39.04	712.0089	2376.42	39.22	0.99
191	2014/10/24	06:04:32	716.0089	2375.90	39.04	716.0089	2374.81	39.22	1.09
192	2014/10/24	10:04:32	720.0089	2374.45	39.04	720.0089	2373.42	39.22	1.03
193	2014/10/24	14:04:32	724.0089	2373.05	39.04	724.0089	2372.06	39.22	1.00
194	2014/10/24	18:04:32	728.0089	2371.85	39.03	728.0089	2370.85	39.22	1.00
195	2014/10/24	22:04:32	732.0089	2370.77	39.03	732.0089	2369.69	39.22	1.08
196	2014/10/25	02:04:32	736.0089	2369.64	39.03	736.0089	2368.64	39.22	0.99
197	2014/10/25	06:04:32	740.0089	2368.66	39.03	740.0089	2367.57	39.21	1.09
198	2014/10/25	10:04:32	744.0089	2367.68	39.03	744.0089	2366.63	39.21	1.06
199	2014/10/25	14:04:32	748.0089	2366.75	39.03	748.0089	2365.63	39.21	1.11
200	2014/10/25	18:04:32	752.0089	2365.85	39.03	752.0089	2364.75	39.21	1.09

LOWER Serial Number: 2653 Start Date: 2014/09/24 10:04:00 Run Depth: 1056.00

UPPER Serial Number: 2612 Start Date: 2014/09/24 10:04:00 Run Depth: 1056.00

Print Filter: Print every 4 hour

	LOWER Date yyyy/mm/dd	LOWER Clk Time hh:mm:ss	LOWER Time hr	LOWER Pres. kPa(a)	LOWER Temp. °C	UPPER Time hr	UPPER Pres. kPa(a)	UPPER Temp. °C	Diff. G1 - G2 kPa
201	2014/10/25	22:04:32	756.0089	2364.99	39.03	756.0089	2363.87	39.21	1.11
202	2014/10/26	02:04:32	760.0089	2364.18	39.03	760.0089	2363.04	39.21	1.14
203	2014/10/26	06:04:32	764.0089	2363.43	39.03	764.0089	2362.33	39.21	1.10
204	2014/10/26	10:04:32	768.0089	2362.64	39.03	768.0089	2361.55	39.21	1.09
205	2014/10/26	14:04:32	772.0089	2361.92	39.03	772.0089	2360.79	39.21	1.13
206	2014/10/26	18:04:32	776.0089	2361.26	39.03	776.0089	2360.17	39.21	1.08
207	2014/10/26	22:04:32	780.0089	2360.62	39.03	780.0089	2359.52	39.21	1.10
208	2014/10/27	02:04:32	784.0089	2360.05	39.03	784.0089	2358.91	39.21	1.13
209	2014/10/27	06:04:32	788.0089	2359.33	39.03	788.0089	2358.37	39.21	0.96
210	2014/10/27	10:04:32	792.0089	2358.92	39.03	792.0089	2357.87	39.21	1.06
211	2014/10/27	14:04:32	796.0089	2358.43	39.03	796.0089	2357.36	39.21	1.07
212	2014/10/27	18:04:32	800.0089	2357.97	39.03	800.0089	2356.83	39.21	1.14
213	2014/10/27	22:04:32	804.0089	2357.37	39.03	804.0089	2356.38	39.21	0.99
214	2014/10/28	02:04:32	808.0089	2356.90	39.02	808.0089	2355.89	39.21	1.01
215	2014/10/28	06:04:32	812.0089	2356.53	39.02	812.0089	2355.48	39.21	1.05
216	2014/10/28	10:04:32	816.0089	2356.02	39.02	816.0089	2355.15	39.21	0.88
217	2014/10/28	14:04:32	820.0089	2355.62	39.03	820.0089	2354.71	39.21	0.91
218	2014/10/28	18:04:32	824.0089	2355.26	39.02	824.0089	2354.37	39.21	0.89
219	2014/10/28	22:04:32	828.0089	2355.02	39.02	828.0089	2354.05	39.21	0.97
220	2014/10/29	02:04:32	832.0089	2354.65	39.02	832.0089	2353.70	39.21	0.95
221	2014/10/29	06:04:32	836.0089	2354.34	39.02	836.0089	2353.32	39.20	1.02
222	2014/10/29	10:04:32	840.0089	2353.94	39.02	840.0089	2352.95	39.21	0.99
223	2014/10/29	14:04:32	844.0089	2353.69	39.02	844.0089	2352.71	39.20	0.98
224	2014/10/29	18:04:32	848.0089	2353.41	39.02	848.0089	2352.46	39.20	0.95
225	2014/10/29	22:04:32	852.0089	2353.08	39.02	852.0089	2352.08	39.20	1.00
226	2014/10/30	02:04:32	856.0089	2352.82	39.02	856.0089	2351.89	39.20	0.93
227	2014/10/30	06:04:32	860.0089	2352.61	39.02	860.0089	2351.65	39.20	0.96
228	2014/10/30	10:04:32	864.0089	2352.42	39.02	864.0089	2351.45	39.20	0.97
229	2014/10/30	14:04:32	868.0089	2352.14	39.02	868.0089	2351.19	39.20	0.95
230	2014/10/30	18:04:32	872.0089	2351.92	39.02	872.0089	2350.91	39.20	1.01
231	2014/10/30	22:04:32	876.0089	2351.72	39.02	876.0089	2350.67	39.20	1.05
232	2014/10/31	02:04:32	880.0089	2351.49	39.02	880.0089	2350.52	39.20	0.98
233	2014/10/31	06:04:32	884.0089	2351.25	39.02	884.0089	2350.26	39.20	0.99
234	2014/10/31	10:04:32	888.0089	2351.06	39.02	888.0089	2350.11	39.20	0.95
235	2014/10/31	14:04:32	892.0089	2350.93	39.02	892.0089	2349.92	39.20	1.01
236	2014/10/31	18:04:32	896.0089	2350.82	39.02	896.0089	2349.80	39.20	1.02
237	2014/10/31	22:04:32	900.0089	2350.62	39.02	900.0089	2349.60	39.20	1.02
238	2014/11/01	02:04:32	904.0089	2350.53	39.02	904.0089	2349.47	39.20	1.07
239	2014/11/01	06:04:32	908.0089	2350.42	39.02	908.0089	2349.36	39.20	1.06
240	2014/11/01	10:04:32	912.0089	2350.21	39.02	912.0089	2349.19	39.20	1.02

LOWER Serial Number: 2653 Start Date: 2014/09/24 10:04:00 Run Depth: 1056.00

UPPER Serial Number: 2612 Start Date: 2014/09/24 10:04:00 Run Depth: 1056.00

Print Filter: Print every 4 hour

	LOWER Date yyyy/mm/dd	LOWER Clk Time hh:mm:ss	LOWER Time hr	LOWER Pres. kPa(a)	LOWER Temp. °C	UPPER Time hr	UPPER Pres. kPa(a)	UPPER Temp. °C	Diff. G1 - G2 kPa
241	2014/11/01	14:04:32	916.0089	2349.97	39.02	916.0089	2349.00	39.20	0.97
242	2014/11/01	18:04:32	920.0089	2349.90	39.02	920.0089	2348.93	39.20	0.97
243	2014/11/01	22:04:32	924.0089	2349.78	39.02	924.0089	2348.72	39.20	1.06
244	2014/11/02	02:04:32	928.0089	2349.66	39.02	928.0089	2348.64	39.20	1.02
245	2014/11/02	06:04:32	932.0089	2349.41	39.01	932.0089	2348.48	39.20	0.93
246	2014/11/02	10:04:32	936.0089	2349.30	39.02	936.0089	2348.31	39.19	0.99
247	2014/11/02	14:04:32	940.0089	2349.26	39.01	940.0089	2348.20	39.19	1.06
248	2014/11/02	18:04:32	944.0089	2349.16	39.01	944.0089	2348.12	39.19	1.04
249	2014/11/02	22:04:32	948.0089	2349.11	39.01	948.0089	2348.08	39.19	1.03
250	2014/11/03	02:04:32	952.0089	2349.01	39.01	952.0089	2347.98	39.19	1.03
251	2014/11/03	06:04:32	956.0089	2348.95	39.01	956.0089	2347.93	39.19	1.02
252	2014/11/03	10:04:32	960.0089	2348.91	39.01	960.0089	2347.88	39.19	1.03
253	2014/11/03	14:04:32	964.0089	2348.86	39.01	964.0089	2347.82	39.19	1.03
254	2014/11/03	18:04:32	968.0089	2348.82	39.01	968.0089	2347.77	39.19	1.05
255	2014/11/03	22:04:32	972.0089	2348.59	39.01	972.0089	2347.63	39.19	0.96
256	2014/11/04	02:04:32	976.0089	2348.53	39.01	976.0089	2347.61	39.19	0.92
257	2014/11/04	06:04:32	980.0089	2348.57	39.01	980.0089	2347.58	39.19	0.99
258	2014/11/04	10:04:32	984.0089	2348.45	39.01	984.0089	2347.48	39.19	0.97
259	2014/11/04	14:04:32	988.0089	2348.49	39.01	988.0089	2347.46	39.19	1.03
260	2014/11/04	18:04:32	992.0089	2348.44	39.01	992.0089	2347.43	39.19	1.01
261	2014/11/04	22:04:32	996.0089	2348.37	39.01	996.0089	2347.37	39.19	1.00
262	2014/11/05	02:04:32	1000.0089	2348.24	39.01	1000.0089	2347.29	39.19	0.95
263	2014/11/05	06:04:32	1004.0089	2348.14	39.01	1004.0089	2347.18	39.19	0.96
264	2014/11/05	09:08:02	1007.0672	2348.02	39.01	1007.0672	2347.42	39.19	0.60
265	2014/11/05	09:08:02	1007.0672	FINAL PRESSURE, PREPARE TO UNSET BRIDGE PLUG					
266	2014/11/05	09:08:32	1007.0756	2348.49	39.01	1007.0756	2347.86	39.19	0.63
267	2014/11/05	09:12:02	1007.1339	6059.59	38.27	1007.1339	5998.04	36.02	61.55
268	2014/11/05	09:12:02	1007.1339	UNSET BRIDGE PLUG					
269	2014/11/05	09:12:32	1007.1422	5939.00	35.76	1007.1422	5931.76	34.72	7.24
270	2014/11/05	09:39:32	1007.5922	4136.68	28.85	1007.5922	4151.43	28.70	-14.74
271	2014/11/05	09:39:32	1007.5922	PULL OUT OF HOLE					
272	2014/11/05	09:40:02	1007.6006	4075.44	28.57	1007.6006	4059.38	28.44	16.05
273	2014/11/05	09:58:02	1007.9006	103.19	21.77	1007.9006	103.66	21.90	-0.47
274	2014/11/05	09:58:02	1007.9006	TOOLS AT SURFACE					
275	2014/11/05	09:58:32	1007.9089	103.12	21.76	1007.9089	103.98	21.89	-0.86
276	2014/11/05	10:04:32	1008.0089	102.21	21.69	1008.0089	102.69	21.85	-0.48
277	2014/11/05	14:04:32	1012.0089	102.67	19.76	1012.0089	101.59	21.46	1.08
278	2014/11/05	14:25:02	1012.3506	101.68	16.90	1012.3506	100.87	19.10	0.80

LOWER Serial Number: 2653 Start Date: 2014/09/24 10:04:00 Run Depth: 1056.00

UPPER Serial Number: 2612 Start Date: 2014/09/24 10:04:00 Run Depth: 1056.00

Print Filter: Print every 4 hour



DATE: September 27 th - November 5 th , 2014	COMPANY: Tundra Oil & Gas Partnership
WELLNAME: North Pierson Unit #1	ADDRESS: Virden, MB
LOCATION: 1-20-1-21-3-28 W1	UWI: 103.01-21-003-28W1.00
FIELD: North Pierson	FORMATION: Bakken
CO HQ REP: Craig [REDACTED]	PHONE: 1204 748 4409
FIELD REP: Brent [REDACTED]	PHONE: 1204 851 5013
REPORTS TO (NAME & EMAIL ADDRESS): brett.howell@tundraoilandgas.com chris.perkins@tundraoilandgas.com robert.prefontaine@tundraoilandgas.com adam.berke@tundraoilandgas.com shirley.angus@tundraoilandgas.com allan.bertram@tundraoilandgas.com bill.jenkins@tundraoilandgas.com chris.perkins@tundraoilandgas.com craig.lane@tundraoilandgas.com eric.bjornsson@tundraoilandgas.com jane.mctaggart@tundraoilandgas.com anh.hgyen@tundraoilandgas.com justin.robertson@tundraoilandgas.com andrew.taylor@tundraoilandgas.com tim.howell@tundraoilandgas.com tyler.routledge@tundraoilandgas.com	

STATUS: Oil Well		TEST TYPE: Bridge Plug
ESTIMATED H2S CONTENT: <10 ppm		ESTIMATED CO2 CONTENT: <10 ppm
PRODUCING THROUGH: Tubing		SHUT IN TIME/DATE: See Survey
KOP: 770 mKB	TVD: 976.81 mKB	LICENCE #: 9822
PBTD: N/A	TD: 2545 mKB	WELL TYPE: Horizontal
CASING SIZE: 177.8 mm	CSG WEIGHT: 34.23 / 29.76 kg/m	CSG DEPTH: 1103 mKB
TUBING SIZE: N/A	TBG WEIGHT: N/A	TBG DEPTH: N/A
Elevations KB: 471.30 mKB	GRD: 467.20 mKB	CF: 4.10 mKB

PRODUCING INTERVAL

TYPE: Open Hole	SIZE: N/A	INTERVAL: 1103 - 2545 mKB
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RECORDER INFORMATION

TOP S/N: 2612	FILE NAME: 1-20-1-21-3-28 W1	RANGE: 20,680 kPa
BOTTOM S/N: 2653	FILE NAME: 1-20-1-21-3-28 W1	RANGE: 20,680 kPa
TOP BATTERY S/N: PPS1077C	BOTTOM BATTERY S/N: PPS1017C	
CONNECT TIME: September 24 th , 2014 10:04:01	DISCONNECT TIME: November 5 th , 2014 14:25:02	

SURFACE TEMP: 8 C	LEASE CONDITION: Muddy
WIRELINE OPERATOR: Ivory [REDACTED]	PHONE: 1306 461 9504
WIRELINE ASSISTANT: N/A	
DIRECTIONS: N/A	

DWG WELL HEAD PRESSURES:

TUBING (before survey): N/A	CASING (before survey): N/A
TUBING (after survey): N/A	CASING (after survey): N/A

FLUID LEVEL: N/A	RUN DEPTH: N/A
TIME ON BOTTOM: N/A	TIME OFF BOTTOM: N/A

GRADIENT STOPS

DEPTH mKB:	N/A	FROM:	N/A	UNTIL:	N/A
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COMMENTS: Tools were ran in the well by a drilling rig to collect the BHP + BHT below a bridge plug. Tools were then pulled by a service rig.

DESCRIPTION OF WORK DONE:

Tools were ran in the well by a drilling rig to collect the BHP + BHT below a bridge plug. Tools were then pulled by a service rig.

September 24th, 2014

10:04:01 - Connect batteries

September 27th, 2014

17:39:02 - Run in hole

19:07:02 - On bottom

19:08:02 - Bridge plug set @1055 mKB Recorders @1056 mKB

November 5th, 2014

09:11:32 - FINAL STABLE BHP + BHT

09:12:02 - Bridge plug un-set

09:39:32 - POOH

09:58:02 - Surface

14:25:02 - Download data