

# *Pressure Survey Report Rev. 1*

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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) <b>See Comments</b>
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 Muir, Quality Wireline, Estevan, 306-634-7975
Report Prepared By	Vida Farahani, RTM, Calgary, 403-720-3444
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*

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# ***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
	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*

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## ***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

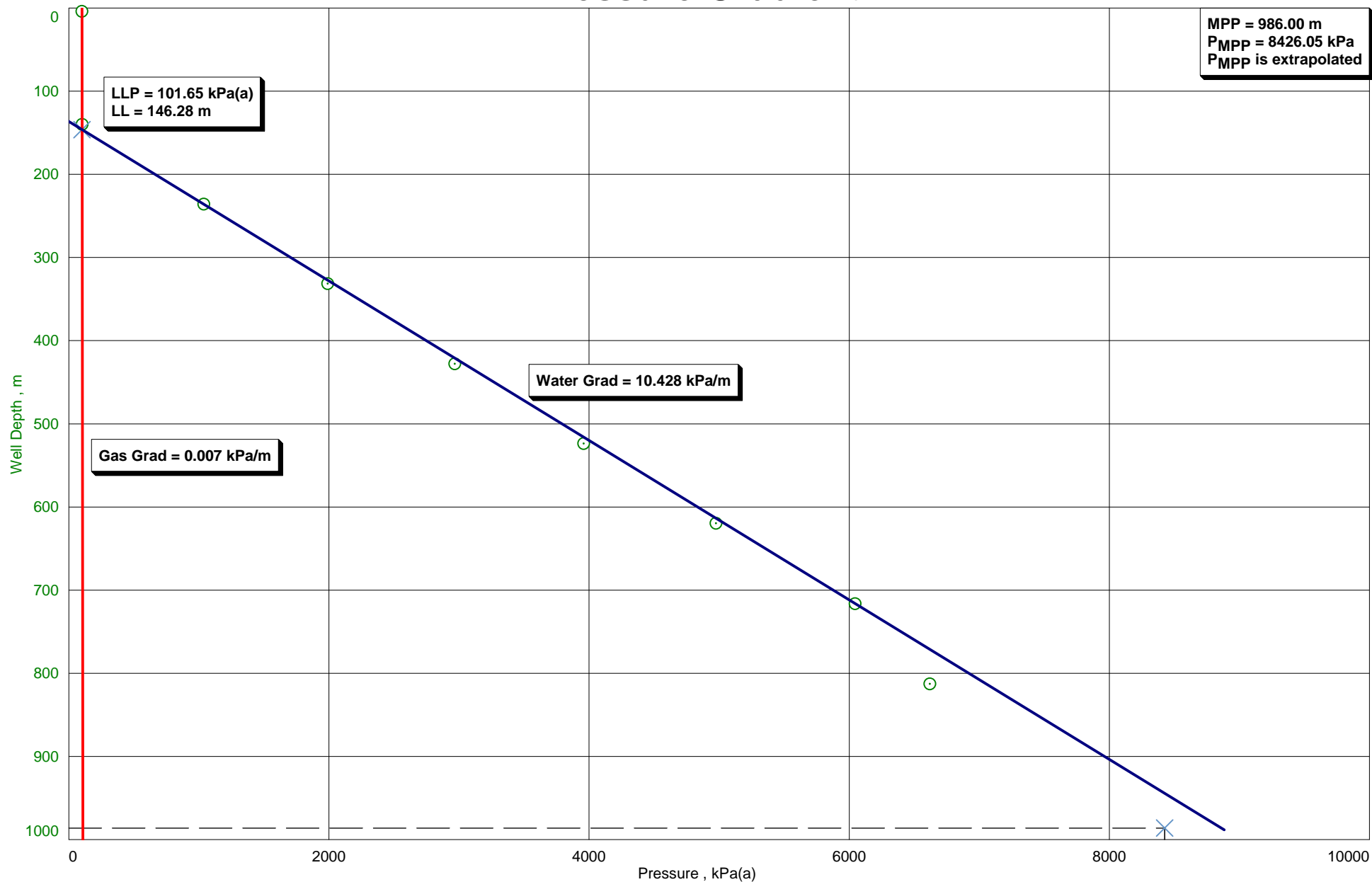
## Results

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

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## Pressure Gradient



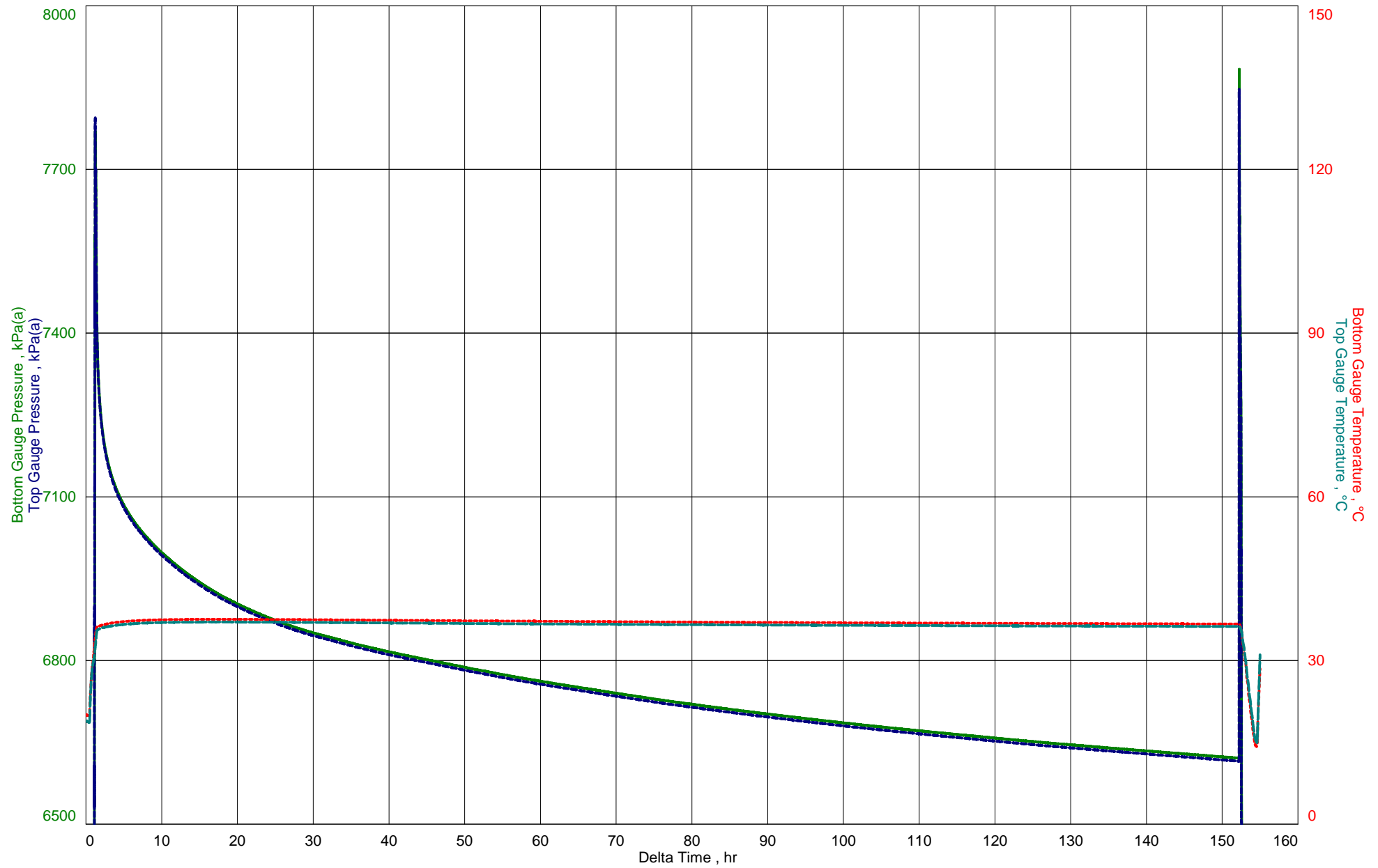
# *PRESSURE SURVEY REPORT*

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## ***Plots***



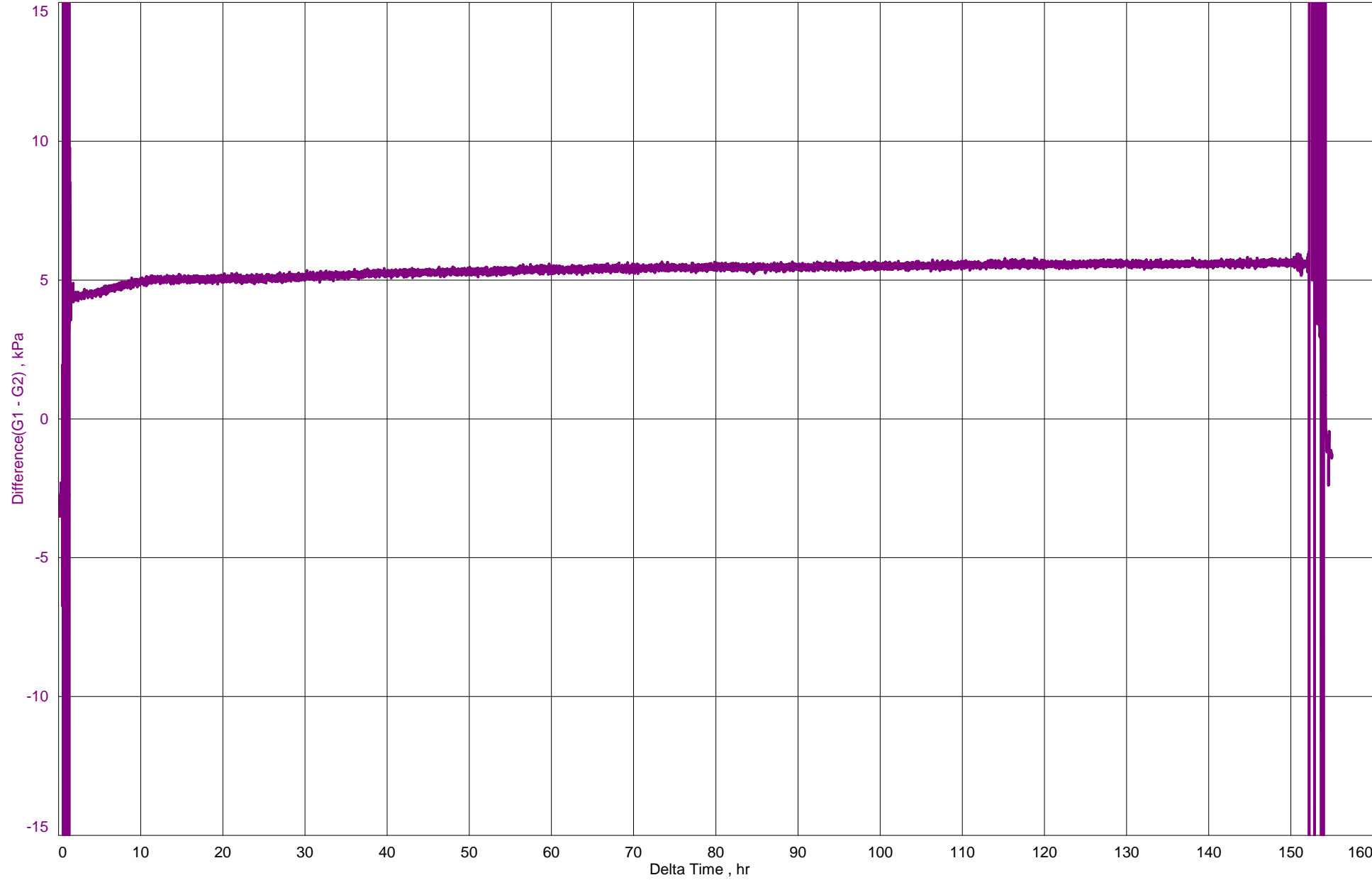
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Tundra Oil & Gas Ltd.  
(15-18)8-19-3-28W1  
Start Test Date: 2007/07/18  
Final Test Date: 2007/07/24

Tundra Pierson HZ  
Formation: MC3a

# Tundra Pierson HZ



# Tundra Pierson HZ

