



BAYFIELD RESOURCES INC.

Huron Bayfield Gas Storage Project
Stanley Pool Binder
Binder #6

Tab A

Index Binder #6

Stanley 4-7-XI Pool

Witness

A General

- 1 Table of Contents
- 2 Application for Designation, Permission to Store, Well Drilling

B Geology and Geophysical

- 1 Geological and Geophysical Report

Hoey

C Reservoir Engineering

- 1 Reservoir Engineering
- 2 Report: Assessment of Neighbouring Activities

McIntosh

D Wells and Connecting Pipelines

- 1 Wells and Connecting Pipelines Summary
- 2 Proposed Storage Wells and Workovers
 - 2-1 Bayfield Resources et al #3 (Horiz. #1), Stanley 3-7-XI
 - 2-2 Bayfield Resources et al #3 (Horiz. #1-Lat.#1), Stanley 3-7-XI
 - 2-3 Tribute Resources et al #25 (Dev.#1), Stanley 3-7-XI
 - 2-4 Bayfield Resources et al #4, Stanley 4-7-XI
- 3 Connecting Pipeline and Metering Station Description
- 4 Connecting Pipeline and Metering Station Plan
- 5 Storage Gathering Pipeline Design and Specifications
- 6 Waterwell Monitoring Program
- 7 Reservoir Monitoring Program

Binder #7

E Land and Right-of-Way

- 1 Written Evidence

Jordan

Schedules for Land Documents

- 2 Assignments
- 3 Amalgamations
- 4 Oil and Gas Leases
- 5 Unit Operations Agreements
- 6 Gas Storage Leases
- 7 Proposed DSA
- 8 Compensation Offers
- 9 Amending Agreements
- 10 Meetings and Principal Items of Correspondence

F Environmental

- 1 Environmental and Socio-Economic Impact Assessment

Wesenger

ONTARIO ENERGY BOARD

IN THE MATTER OF the Ontario Energy Board Act, 1998, S.O. 1998, c.15, Schedule B; and in particular sections 36(1), 38(1), 40(1), 90(1), thereof;

AND IN THE MATTER OF an Application by Tribute Resources Inc. and Bayfield Resources Inc., on behalf of Huron Bayfield Limited Partnership, for an Order designating the area known as the Stanley 4-7-XI Pool, in the Geographic Township of Stanley, Municipality of Bluewater, County of Huron, as a gas storage area;

AND IN THE MATTER OF an Application by Tribute Resources Inc. and Bayfield Resources Inc., on behalf of Huron Bayfield Limited Partnership, for authority to inject gas into, store gas in and remove gas from the areas designated as the Stanley 4-7-XI Pool, and to enter into and upon the lands in the said areas and use the said lands for such purposes;

AND IN THE MATTER OF an Application by Tribute Resources Inc. and Bayfield Resources Inc., on behalf of Huron Bayfield Limited Partnership, to the Ministry of Natural Resources for a license to drill four wells.

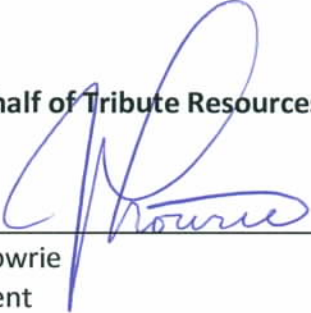
Huron Bayfield Gas Storage Project – Stanley 4-7-XI Pool

1. Tribute Resources Inc. and Bayfield Resources Inc., on behalf of Huron Bayfield Limited Partnership, a limited partnership formed under the laws of Ontario (hereinafter referred to as the "Applicant") seeks to designate and develop a natural gas reservoir as a natural gas storage pool for service commencing in 2012 in order to meet market demand for underground natural gas storage.
2. The Applicant hereby applies to the Ontario Energy Board (hereinafter referred to as the "Board") pursuant to section 36(1) of the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Schedule B (hereinafter referred to as the "Act"), for an Order designating the area containing a gas reservoir known as the Stanley 4-7-XI Pool located in Lots 6, 7 and 8, Concession 10; and Lots 6, 7 and 8, Concession 11, in the geographic Township of Stanley, in the Municipality of Bluewater, in the County of Huron, as a designated gas storage area (hereinafter referred to as the "Stanley Pool").

3. The Applicant further applies to the Board pursuant to section 38(1) of the Act for authority to inject gas into, store gas in and remove gas from the Stanley Pool, and enter into and upon the lands in the area for such purposes.
4. Pursuant to section 40(1) of the Act, the Applicant seeks a favourable report from the Board to the Ministry of Natural Resources to whom application has been made for a license to drill four (4) injection/withdrawal wells within the proposed designated storage area (hereinafter referred to as the "DSA") of the Stanley Pool.
5. The Applicant requests such further or other related relief as the Applicant may request or as the Board may deem appropriate pursuant to the Act.
6. Attached hereto as Schedule A, the Metes and Bounds Description of the Proposed Boundary of the Stanley Pool for which designation is sought.
7. Attached hereto as Schedule B-1 is a map entitled Huron Bayfield Storage Project showing the general location of the proposed Stanley Pool DSA. Schedules B-2 and B-3 are maps showing the Petroleum and Natural Gas Leases and the Gas Storage Leases, respectively within the Stanley Pool. The Proposed well locations are shown on Schedule B-4 titled Stanley 4-7-XI Proposed Well Bores.
8. Attached hereto as Schedule C, is a list of the parties who are affected by the Application for designation and development of the Stanley Pool, including the owners of property within the proposed Stanley Pool DSA, owners of property adjacent to the proposed Stanley Pool DSA.
9. In order to meet an in-service date as early as April 2012 for the Stanley Pool, the Applicant anticipates that commitments for project materials will commence as early as July 2010 and will escalate throughout the remainder of that year. The Applicant therefore respectfully requests the Board's timely approval of this Application by June 30, 2010.

Dated at the City of London, Ontario this 21st day of September, 2009.

On behalf of Tribute Resources Inc. and Bayfield Resources Inc.



Jane Lowrie
President

Comments and communications respecting this Application should be directed to:

Mr. Peter Budd, LLB
Budd Energy Inc.
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Toronto, Ontario
M6P 2S4
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Telephone: (416) 948-1334
Facsimile: (519) 657-4296

Mr. William Blake, Vice President - Operations
Tribute Resources Inc.
309-D Commissioners Road West
London, Ontario
N6J 1Y4
e-mail: wblake@tributeresources.com
Telephone: (519) 519-657-2151
Facsimile: (519) 657-4296

Mr. C. A. Lewis
Giffen and Partners
465 Waterloo Street
London, Ontario N6B 1Z4
e-mail: lewis@giffens.com
Telephone: (519) 679-4700
Facsimile: (519) 432-8003

**Metes and Bounds Description of the Proposed Boundary of the Stanley 4-7-XI Pool
Designated Storage Area in the Geographic Township of Stanley, in the Municipality of
Bluewater, in the County of Huron**

ALL AND SINGULAR that certain parcel or tract of land in the geographic Township of Stanley, in the Municipality of Bluewater, in the County of Huron, Province of Ontario, being composed of part of Lots 6, 7 and 8, Concessions 11, and part of Lots 6, 7 and 8 of Concession 12, which may be more particularly described as follows:

COMMENCING at the Southwest angle of Lot 6, Concession 11, (also being the Southeast angle of Lot 6, Concession 12);

THENCE: Easterly along the Southerly limit of Lot 6, Concession 11, to the line dividing the Westerly Three-quarters and Easterly One- quarter of Lot 6, Concession 11;

THENCE: Northerly along the last mentioned limit of Lots 6, 7 and 8, Concession 11 to the Northerly limit of Lot 8, Concession 11;

THENCE: Westerly along the Northerly limit of Lot 8, Concession 11, to the Westerly limit of said Lot 8;

THENCE: Continuing Westerly along the Northerly limit of Lot 8, Concession 12, to the line dividing the Easterly One-quarter and Westerly Three-quarters of Lot 8, Concession 12;

THENCE: Southerly parallel to the Easterly limit of Lot 8, Concession 12, to the Northerly limit of Lot 7, Concession 12 ;

THENCE: Westerly along the Northerly limit of Lot 7, Concession 12, to the line dividing the Easterly Half and Westerly Half of Lot 7, Concession 12;

THENCE: Southerly along the last mentioned limit to the Southerly limit of Lot 7, Concession 12;

THENCE: Easterly along the Southerly limit of Lot 7, Concession 12, to the line dividing the Westerly Three-quarters and the Easterly One-quarter of Lot 6, Concession 12;

THENCE: Southerly along the last mentioned limit of Lot 6, Concession 12, to the Southerly limit of Lot 6, Concession 12;

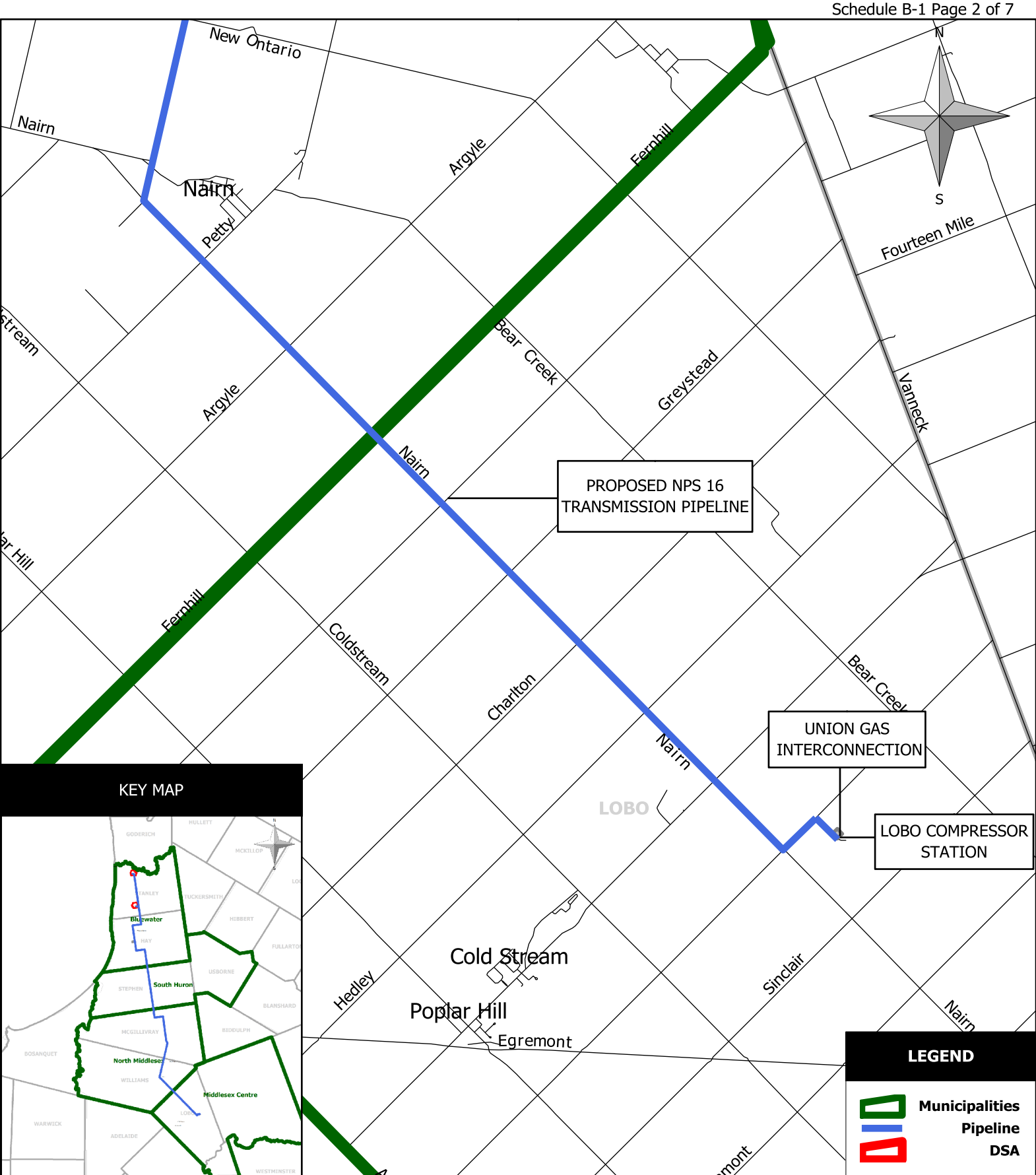
THENCE: Easterly along the Southerly limit of Lot 6, Concession 12 to the point of commencement.

Corresponding to the Ministry of Natural Resources tracts as described below:

Tract 2	Lot 7	Concession 12
Tract 1	Lots 6, 7 and 8	Concession 12
Tracts 2, 3 and 4	Lots 6, 7 and 8	Concession 11



REVISIONS					HURON BAYFIELD GAS STORAGE PROJECT					
NO.	DATE	BY	APP'D	REMARKS						
					DRAWN BY	E. Funston	DATE	09/01/2009	SCALE	1:380,000
					CHECKED BY		DATE			
					APPROVED BY		DATE		SHEET	1 of 7



KEY MAP

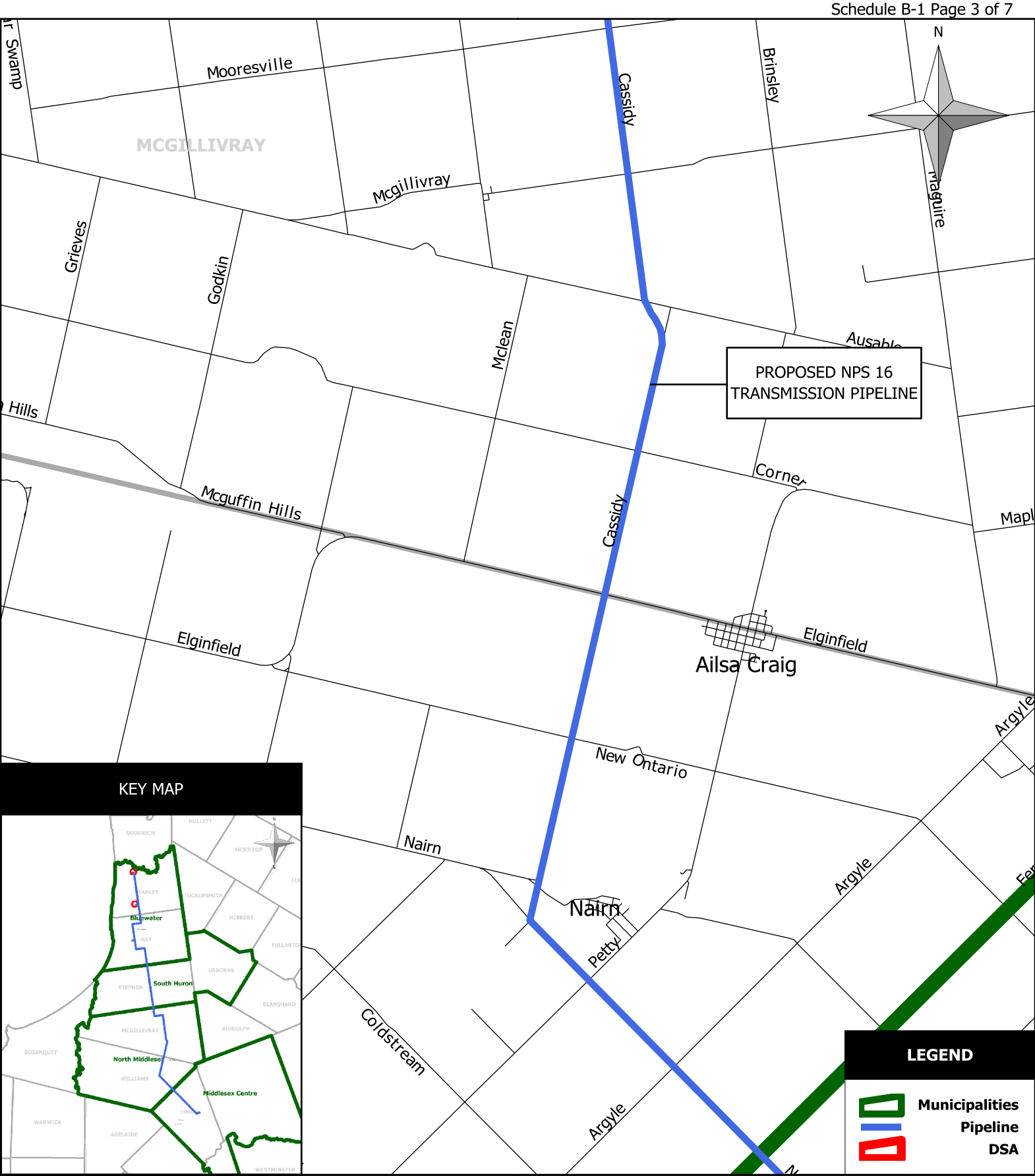


LEGEND

-  Municipalities
-  Pipeline
-  DSA

REVISIONS				
NO.	DATE	BY	APP'D	REMARKS

HURON BAYFIELD GAS STORAGE PROJECT			
DRAWN BY	E. Funston	DATE	09/01/2009
CHECKED BY		DATE	
APPROVED BY		DATE	
SCALE	1:70,000	SHEET	2 of 7



KEY MAP

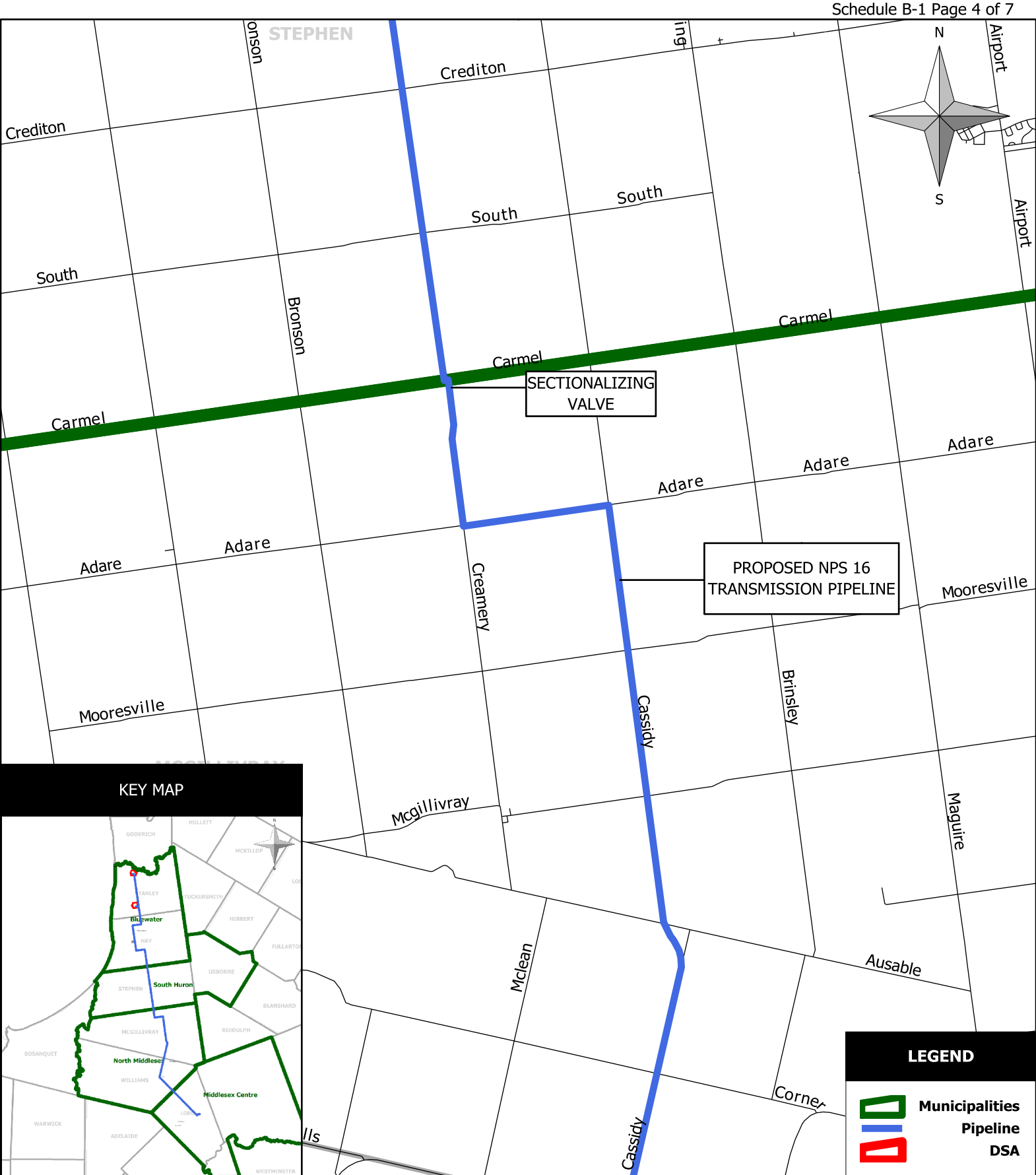


LEGEND

-  Municipalities
-  Pipeline
-  DSA

REVISIONS				
NO.	DATE	BY	APP'D	REMARKS

HURON BAYFIELD GAS STORAGE PROJECT			
DRAWN BY	E. Funston	DATE	09/01/2009
CHECKED BY		DATE	
APPROVED BY		DATE	
SCALE	1:70,000	SHEET	3 of 7



KEY MAP

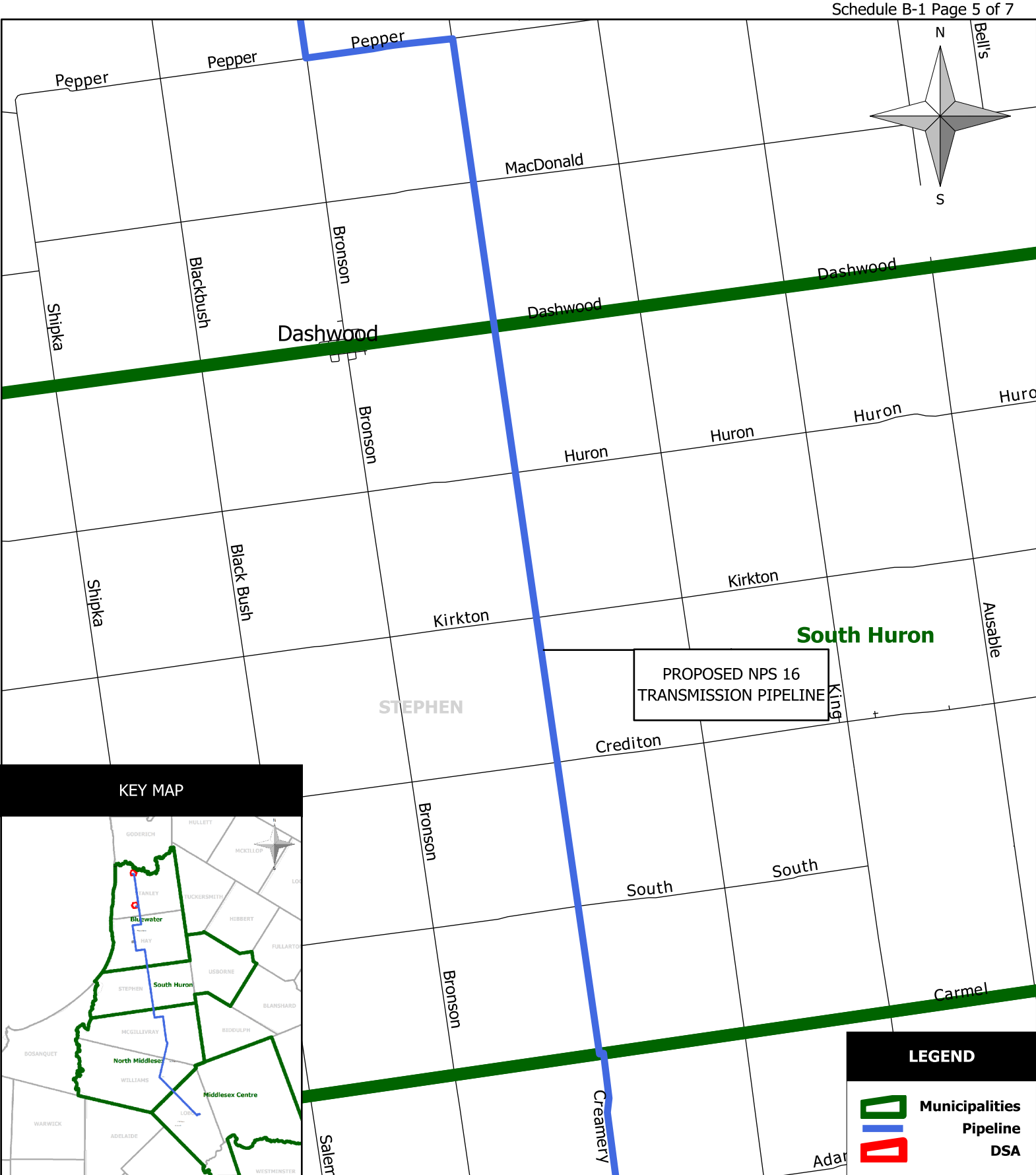


LEGEND

- Municipalities
- Pipeline
- DSA

REVISIONS				
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HURON BAYFIELD GAS STORAGE PROJECT			
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APPROVED BY		DATE	
SCALE	1:70,000	SHEET	4 of 7



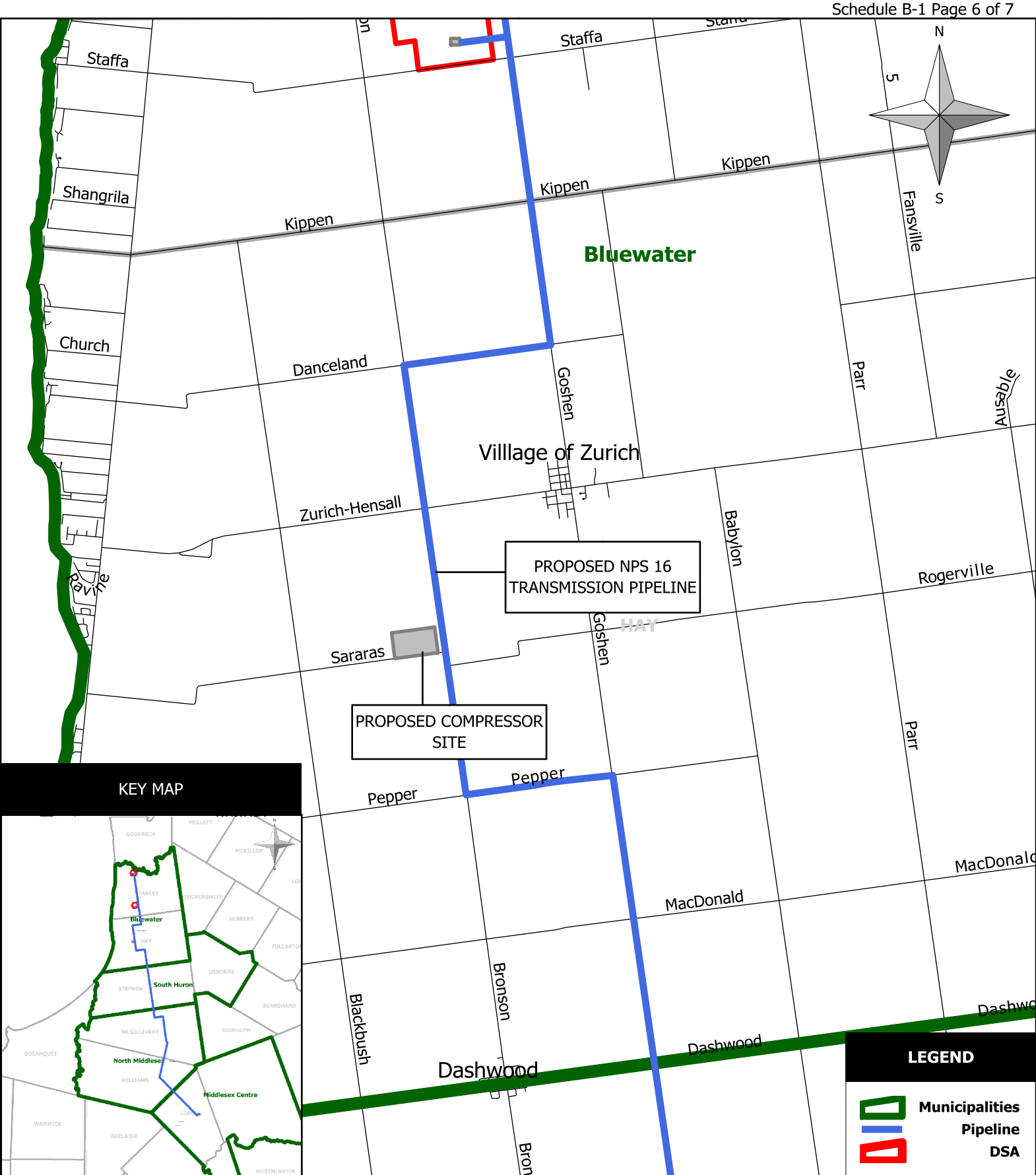
KEY MAP



LEGEND

-  Municipalities
-  Pipeline
-  DSA

REVISIONS					HURON BAYFIELD GAS STORAGE PROJECT			
NO.	DATE	BY	APP'D	REMARKS				
					DRAWN BY	E. Funston	DATE	09/01/2009
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					APPROVED BY		DATE	
							SCALE	1:70,000
							SHEET	5 of 7



KEY MAP



LEGEND

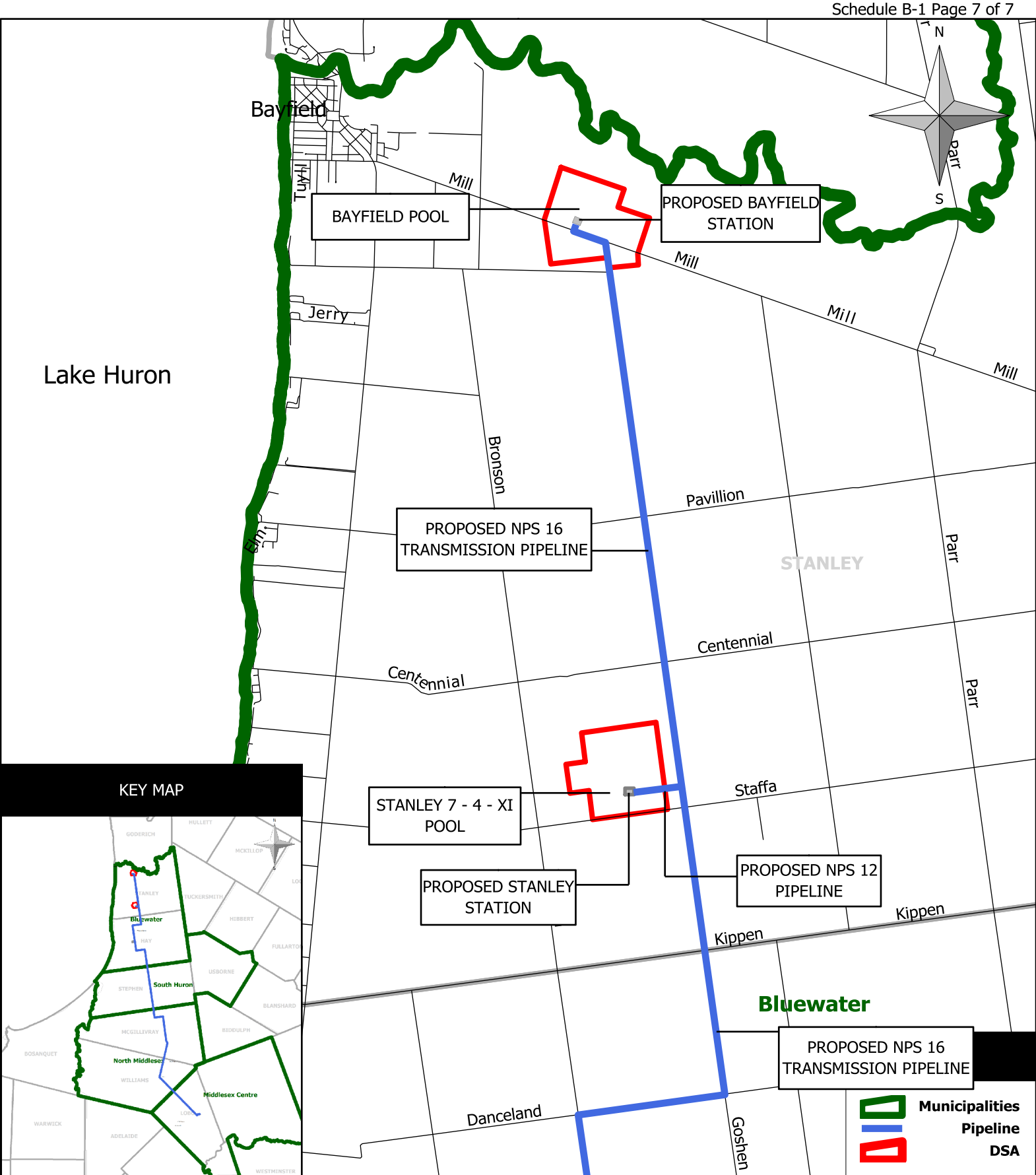


REVISIONS

NO.	DATE	BY	APP'D	REMARKS

HURON BAYFIELD GAS STORAGE PROJECT

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APPROVED BY		DATE		SHEET	6 of 7



KEY MAP



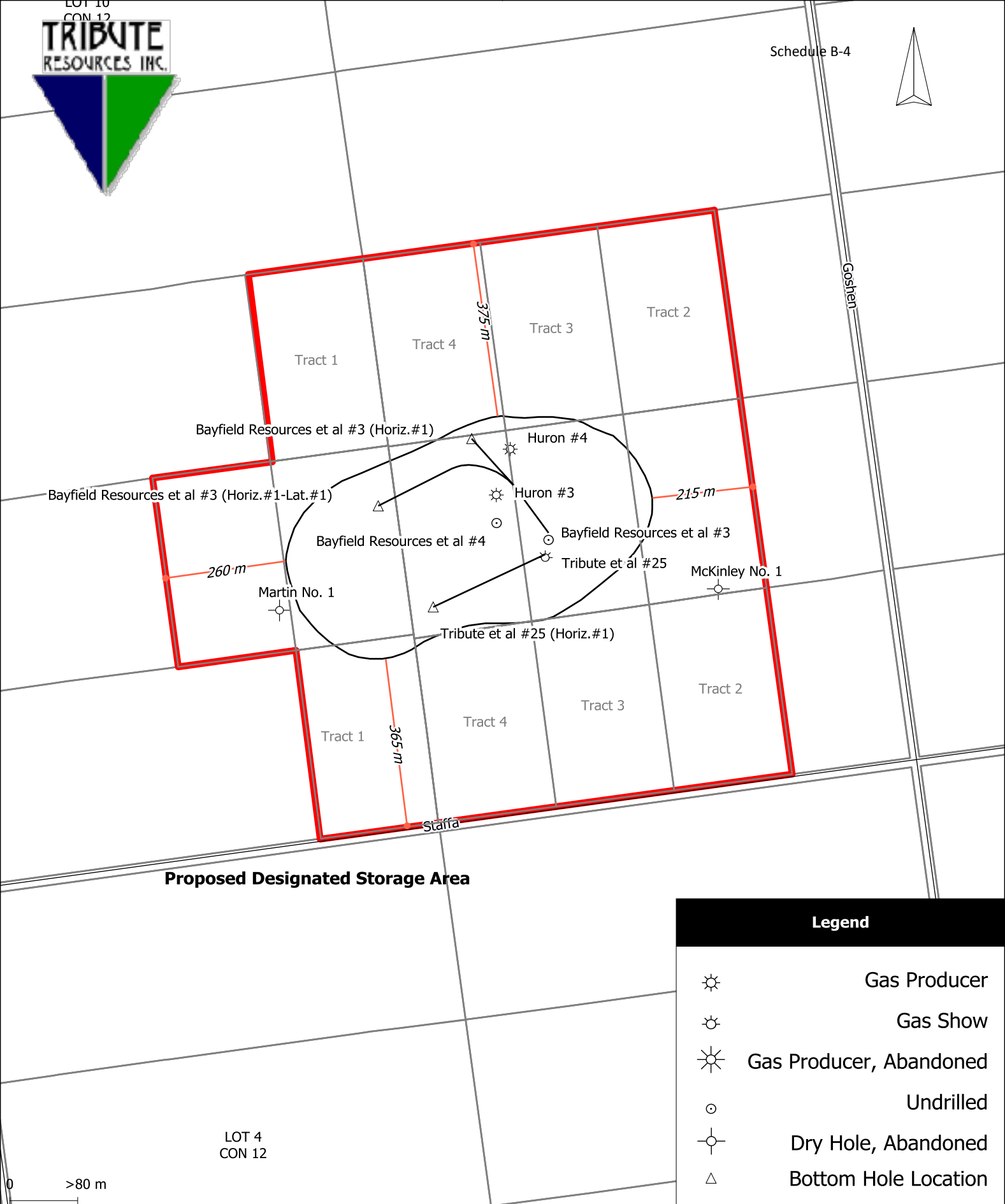
REVISIONS				
NO.	DATE	BY	APP'D	REMARKS

HURON BAYFIELD GAS STORAGE PROJECT			
DRAWN BY	E. Funston	DATE	09/01/2009
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APPROVED BY		DATE	
SCALE	1:70,000	SHEET	7 of 7

REVISIONS					STANLEY 4 - 7 - XI POOL PNG LEASES					
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					DRAWN BY	E. Funston	DATE	09/09/2009	SCALE	1:15,000
					CHECKED BY		DATE			
					APPROVED BY		DATE		SHEET	1 of 1



Schedule B-4



Proposed Designated Storage Area

Legend

-  Gas Producer
-  Gas Show
-  Gas Producer, Abandoned
-  Undrilled
-  Dry Hole, Abandoned
-  Bottom Hole Location

Stanley 4-7-XI Proposed Well Bores

Universal Transverse Mercator - Zone 17 (N).
Contour Interval: 10m. All Units Metric.
Lon: 81°38'49" W
Lat: 43°28'42" N
Prepared by: J.C. for Tribute Resources Inc.
Printed at: 16/09/2009

LANDOWNERS WITHIN PROPOSED STANLEY DESIGNATED STORAGE AREA	OTHER INTERESTED PARTIES TO THE LANDS WITHIN THE STANLEY PROPOSED DESIGNATED STORAGE AREA	LANDOWNERS ADJACENT TO THE DESIGNATED STORAGE AREA	AGENCY CONTACT LIST
PIN 41217-0049 Paul Daniel STECKLE Karthryn Diane STECKLE R.R. #2 Zurich, Ontario, N0M 2T0		PIN 41217-0048 McKINLEY FARMS LIMITED c/o Dale Ratcliffe 74370 Goshen Line R.R. #1 Zurich, Ontario, N0M 2T0	Union Gas Limited P.O Box 2001 50 Keil Drive North Chatham ON N7M 5M1
PIN 41217-0051 Harry ZANDWYK 74100A Bronson Line R.R. #2 Zurich, Ontario, N0M 2T0			Environment Canada 867 Lakeshore Rd P.O. Box 5050 Burlington ON L7R 4A6
PIN 41217-0052 Wayne Peter GINGERICH Anita Darlene GINGERICH 74042 Bronson Line R.R. #2 Zurich, Ontario, N0M 2T0		PIN 41217-0003 The Corporation of the Municipality of Bluewater 14 Mill Street, P.O. Box 250 Zurich, Ontario, N0M 2T0 Road Allowance: Staffa Line	Natural Resources Canada 580 Booth St Ottawa ON K1A 0E4
PIN 41217-0067 KEYS FARMS INC. c/o Ervin Keys 74602 Babylon Line R.R. #1 Varna, Ontario, N0M 2R0		PIN 41217-003 The Corporation of the Municipality of Bluewater 14 Mill Street, P.O. Box 250 Zurich, Ontario, N0M 2T0 Road Allowance: Staffa Line	Ausable Bayfield Conservation Authority 71108 Morrison Line RR#3 Exeter ON N0M 1S5
PIN 41217-0069 McKINLEY FARMS LIMITED c/o Dale Ratcliffe 74370 Goshen Line R.R. #1 Zurich, Ontario, N0M 2T0		PIN 41217-0070 Emma Jean ARMSTRONG R.R. #1 Zurich, Ontario, N0M 2T0	Ministry of Agriculture, Food and Rural Affairs 1 Stone Road West 3rd Floor Guelph ON N1G 4Y2
			Ministry of Culture 400 University Ave., 4th Floor Toronto ON M7A 2R9
			Ministry of Energy 880 Bay St., 3rd Floor Toronto ON M7A 2C1

LANDOWNERS WITHIN PROPOSED STANLEY DESIGNATED STORAGE AREA	OTHER INTERESTED PARTIES TO THE LANDS WITHIN THE STANLEY PROPOSED DESIGNATED STORAGE AREA	LANDOWNERS ADJACENT TO THE DESIGNATED STORAGE AREA	AGENCY CONTACT LIST
			Ministry of the Environment 733 Exeter Road, 2nd Floor London ON N6E 1L3
			Ministry of Natural Resources 1 Stone Road West Guelph ON N1G 4Y2
			Ministry of Natural Resources 100 Don St P.O. Box 819 Clinton ON N0M 1L0
			Ministry of Natural Resources 615 John St. N. Aylmer ON N5H 2S8
			Ministry of Culture 400 University Ave. 4th Floor Toronto ON M7A 2R9
			Ministry of the Environment 659 Exeter Road, 2nd Floor London ON N6E 1L3
			Ministry of Natural Resources 300 Water St. 5th Floor North Tower P.O. Box 7000 Peterborough ON K9J 8M5

LANDOWNERS WITHIN PROPOSED STANLEY DESIGNATED STORAGE AREA	OTHER INTERESTED PARTIES TO THE LANDS WITHIN THE STANLEY PROPOSED DESIGNATED STORAGE AREA	LANDOWNERS ADJACENT TO THE DESIGNATED STORAGE AREA	AGENCY CONTACT LIST
			Technical Standards and Safety Authority 3300 Bloor St W. 14th Floor, Centre Tower Etobicoke ON M8X 2X4
			M.P.P. Huron-Bruce Carol Mitchell 49-50 Albert St. Clinton ON NOM 1L0
			County of Huron County Clerk Barb Leaman Court House Square Goderich ON N7A 1M2
			Municipality of Bluewater Lori Wolfe, County Clerk 14 Mill Street P.O. Box 250 Zurich ON NOM 2T0
			Huron County Federation of Agriculture P.O. Box 429 Clinton ON NOM 1L0
			Ontario Federation of Agriculture 100 Stone Rd W., Suite 206 Guelph ON N1G 5L3
			Bell Canada 370 Albert St. Strathroy ON N7G 4B2

LANDOWNERS WITHIN PROPOSED STANLEY DESIGNATED STORAGE AREA	OTHER INTERESTED PARTIES TO THE LANDS WITHIN THE STANLEY PROPOSED DESIGNATED STORAGE AREA	LANDOWNERS ADJACENT TO THE DESIGNATED STORAGE AREA	AGENCY CONTACT LIST
			Execulink 619 Main St. N. Burgessville ON N0J 1C0
			Hay Communications Cooperative Ltd. P.O. Box 99 Zurich ON N0M 2T0
			Hydro One Networks Inc. 483 Bay St, TCT15, North Tower Toronto ON M5G 2P5
			Tuckersmith Communications Co-operative Ltd. (TCC) 40023 Kippen Rd. Kippen ON N0M 2E0
			Indian and Northern Affairs Canada Environmental Unit re: EA Coordination 25 St. Clair Ave E., 8th Floor Toronto ON M4T 1M2
			Indian and Northern Affairs Canada 10 Wellington St. Gatineau QC K1A 0H4
			Indian and Northern Affairs Canada Deputy Director, Policy and Relationships 720 Bay St, 4th Floor Toronto ON M5G 2K1

Tab B

Geological and Geophysical Report

Stanley Pool Development

September 2009

Neil Hoey

For Tribute Resources Inc. and Bayfield Resources Inc.

Table of Contents

Regional Geology	3
Development History	3
Reef Geology & Reservoir Description	4
Reservoir Description	4
A-1 Carbonate Sucrosic Porosity	5
Seismic	6
Reservoir Containment - Caprock Seal	6
Designated Storage Area	6
Reservoir Development	7
Conclusions	8

List of Appendices

1	Michigan Basin Reef Belt	9
2	Stratigraphic Section Southwestern Ontario	10
3	Typical Pinnacle Reef Schematic	11
4	Summary of Geological Well Data	12
5	Stanley Reef Resource Ltd - Huron #3 Well Card	14
6	Stanley Reef Resource Ltd - Huron #4 Well Card	15
7	Tribute et al #25 Well Card	16
8	Imperial 497 - McKinley No.1 Well Card	17
9	Bluewater Oil & Gas - Martin No.1 Well Card	18
10	Stanley 4-7-XI Pool Guelph Structure	19
11	Stanley 4-7-XI Pool A1 Carbonate Structure	20
12	Stanley 4-7-XI Pool Cross-Section A-A'	21
13	Stanley 4-7-XI Pool Gross Gas Isopach	22
14	Stanley 4-7-XI Pool Show Map	23
15	Stanley 4-7-XI Pool Seismic Coverage	24
16	Stanley 4-7-XI Pool Proposed Designated Storage Area	25
17	Stanley 4-7-XI Pool Reef Edge to DSA Boundary Distance	26
18	MNR Technical Data Reviewed for a Proposed DSA	27
19	Stanley 4-7-XI Pool Proposed Well Bores	28
20	Stanley 4-7-XI Pool Cross-Section A-A' with Proposed Wellbores	29

1 **Regional Geology**

2 The Stanley 4-7-XI Pool is located on the eastern rim of the Michigan Basin.
3 Approximately 425 million years ago, much of southern Ontario and Michigan was
4 covered by a large inland sea. On the perimeters of the Michigan Basin, water
5 conditions were ideal for reef growth and many pinnacle reefs were formed. Schedule 1
6 demonstrates the concentric ring in which reefs were developed in the area. In Ontario,
7 these reefs are developed in the Middle Silurian Guelph Formation, illustrated on the
8 stratigraphic column, shown in Schedule 2. Reefs grew to heights that ranged from 15
9 metres to well over 100 metres. When a reef attains a height of less than 50 metres it is
10 termed an “incipient reef”. When a reef attains a height of greater than 50 metres it is
11 termed a “pinnacle reef”. The Stanley 4-7-XI reef is a pinnacle reef with a height of
12 approximately 105 metres. Pinnacle reefs are the most common gas storage reservoirs
13 in southern Ontario.

14 The regional Guelph Formation is overlain by the Salina A-1 Unit, which consists of a thin
15 basal anhydrite (A-1 Evaporite) and dense carbonate mudstones of the A-1 Carbonate.
16 In an off-reef position, the typically non-porous A-1 Carbonate provides a seal that
17 prevents gas from migrating laterally from the Guelph reef. However, some pinnacle
18 reefs have reef-associated porosity in thin layers within the dense A-1 Carbonates. This
19 porosity may hold minor amounts of gas, oil or water. Above the Guelph pinnacle reef
20 and the off-reef A-1 Carbonate, an effective caprock seal is provided by both the basal
21 A-2 Anhydrite and dense A-2 Carbonate mudstones. A generalized schematic picture of
22 a Guelph pinnacle reef and off-reef sediments is shown in Schedule 3.

23 **Development History**

24 There have been five wells drilled in the vicinity of the Stanley 4-7-XI Pool. Three of the
25 five wells penetrated the crest of the reef. In 1982, Stanley Reef Resource Ltd.
26 discovered the Stanley pinnacle reef with the drilling and completion of Huron #3,
27 Stanley 4-7-XI. The Huron #3 well was almost completely dolomitized in the reef section
28 except for 8 metres of limestone at the crest. A gas show was encountered at a depth of
29 477.0 metres in the top of the Guelph reef, and $25.5 \times 10^3 \text{ m}^3/\text{day}$ of gas was encountered
30 at a depth of 530.0 to 555.0 metres also in the Guelph Formation. No oil or water shows
31 were recorded at this well. Well data for the Huron #3 well is summarized on Schedule
32 4 and on well card Schedule 5. This well has been Plugged and Abandoned to Provincial
33 Operating Standards. In 1983, Stanley Reef Resource Ltd. – Huron #4, Stanley 3-7-XI was
34 drilled. The Huron #4 well encountered a full pinnacle reef build-up that was almost
35 fully dolomitized except for an 8 metre section of limestone at the top of the reef. A
36 gas flow of $169.4 \times 10^3 \text{ m}^3/\text{day}$ was encountered at a depth of 497.0 to 576.0 metres in the
37 Guelph Formation. Well data for the Huron #4 well is summarized on Schedule 4 and on
38 well card Schedule 6. This Huron #4 well is presently shut-in, with plans to plug and
39 abandon the well to meet the Provincial Operating Standards.

1 In 2008, Tribute Resources Inc. drilled Tribute et al #25, Stanley 3-7-XI. The Tribute et al
2 #25 well encountered a full pinnacle reef build-up that was dolomitized except for an 8
3 metre section at the top of the reef. A gas show TSTM was encountered at a depth of
4 580 metres in the Guelph Formation. Well data for the Tribute et al #25 well is
5 summarized on Schedule 4 and on well card Schedule 7. This well is presently shut-in,
6 with plans to directionally drill and then convert the well to an Injection/Withdrawal
7 well.

8 There are two other wells located within the proposed Designated Storage Area. The
9 first of the wells is Imperial 497 – McKinley No. 1, Stanley 2-7-XI, drilled in 1955, and
10 approximately 150 metres east of the reef edge (Schedule 8). No gas shows were
11 encountered in the A-1 Carbonate or Guelph sections. The second of the wells is
12 Bluewater Oil & Gas – Martin No. 1, Stanley 2-7-XII, drilled in 1957, and approximately
13 50 metres west of the reef edge (Schedule 9). Again no gas shows were encountered in
14 the A-1 Carbonate or Guelph sections. A summary of the geologic information for these
15 wells is included in Schedule 4.

16 **Reef Geology & Reservoir Description**

17 The Stanley 4-7-XI Pool is a nearly fully dolomitized pinnacle reef. The reef appears to
18 have a small limestone section that was encountered in the top 8 metres of the reef. At
19 its' crest, the reef is approximately 105 metres tall. The subsea elevation structure map
20 of the Guelph formation maps the reef (Schedule 10).

21 As is typical in most of Huron County, the off-reef A-1 Carbonate sediments are also
22 partially dolomitized. Sample examination of the off-reef wells indicate that the A-1
23 Carbonate at the Imperial 497 – McKinley No. 1 is 26% dolomitized and at the Bluewater
24 Oil & Gas – Martin No. 1 location, 32% dolomitized. Both wells confirm that the A-1
25 Carbonate in the area is only partially dolomitized, that there were no hydrocarbon or
26 water shows encountered, and thus there is no effective porosity in the A-1 Carbonate
27 next to the reef.

28 **Reservoir Description**

29 The shape and structure of the Stanley 4-7-XI Pool was determined from geological well
30 information and interpreted from 2-D and 3-D seismic data. This data shows a reef
31 structure that is 71 acres in size. Structural maps for the Guelph and A-1 Carbonate
32 formations are shown in Schedules 10 and 11 respectively. Schedule 12 depicts the
33 Stanley reef in cross-section showing the structure of the reef as well as its' relation to
34 the off-reef sediments. The A-2 Salt, A-1 Carbonate, and A-1 Evaporite all pinch out
35 against the side of the Stanley pinnacle reef. The A-2 Carbonate, A-2 Shale, and A-2
36 Anhydrite formations all drape over the reef providing an effective caprock seal for the
37 reservoir.

The upper 8 metres of the reef consists of brown and grey limestone, exhibiting no porosity and salt plugging. This upper portion of the reef is severely plugged with anhydrite/halite in the vicinity of the Huron #3 and Huron #4 wells. Medium-golden brown, finely crystalline dolomite, with moderate to good intercrystalline porosity, pin-point porosity and small vugular porosity makes up the middle portion of the reef at the Huron #3 well and the Huron #4 well. In the Huron #3 well, porosity zones are evident from gas flows of $25.5 \times 10^3 \text{ m}^3$ (900 mcf/d) at 530.0 to 555.0 metres KB. Porosity is also evident from Neutron and Density logs run over the reef in an interval from 495 to 528 metres KB and range from 5% to above 20%. In the Huron #4 well, porosity zones are evident from gas flows of $169.4 \times 10^3 \text{ m}^3$ (5.98 Mmcf/d) at 497.0 to 576.0 metres KB. Porosity is also evident from Neutron and Density logs run over the reef in a similar interval from 495 to 525 metres KB and range from 5% to 15%.

The Tribute et al #25 well is severely salt plugged from the top of the reef to approximately 545mKB. The porosity in the unplugged section for the Tribute et al #25 well ranges from 3% to above 15% based on a combination of data including sample examination and Neutron/Density porosity logs.

A gross gas bearing zone within the reef is interpreted to be approximately 82 metres maximum thickness. This is shown in Schedule 13. A show map (gas, oil and water) is shown in Schedule 14 depicting shows encountered in the Guelph and A-1 Carbonate formations in all the wells.

Water saturations were calculated based on log suites (GR-Neutron-Density-DIL resistivity) that were run in 1982 on the Huron #3 well. Saturations range from 15% to 20%, which is common in many reefs in southwestern Ontario.

A-1 Carbonate Sucrosic Porosity

Several pinnacle reefs in southwestern Ontario have porosity in the adjacent off-reef A-1 Carbonate that is connected to the reef. This porosity is usually generated on the leeward (southeast) side of the pinnacle reefs. With good well control, A-1 sucrosic porosity is easily mapped through sample and log examination, and hydrocarbon or water shows in the A-1 Carbonate. At the Stanley 4-7-XI reef, there are two proximal well penetrations that would help indicate the presence of A-1 porosity. Situated approximately 50 metres west of the reef edge, the Bluewater Oil & Gas, Martin No.1 well had an A-1 Carbonate section that was partially dolomitized at the top of the section, and limestone to the base of the section. The section is approximately 32% dolomitized. There were no oil, gas or water shows encountered in the A-1 Carbonate. Situated approximately 150 metres east of the reef edge, the Imperial 497, McKinley No.1 well also had an A-1 Carbonate section that was partially dolomitized at the top of the section, and limestone to the base of the section. This section was approximately 26% dolomitized. There were no oil, gas or water shows encountered in the A-1 Carbonate. The two off-reef wells indicate that there is no sucrosic A-1 Carbonate porosity developed next to the Stanley 4-7-XI reef.

1 **Seismic**

2 There have been two 2-D lines shot in 1984, another 2-D line shot in 2006, and a 2.42
3 km² (250 hectares) 3-D seismic survey conducted over the Stanley 4-7-XI Pool (Schedule
4 15). The 3-D survey was acquired in the fall of 2007 by Conquest Seismic Services of
5 Calgary, Alberta. It was designed, processed and interpreted by David Schieck, a
6 consulting geophysicist with Seismic Solutions of Calgary Alberta, who has many years of
7 Ontario geophysical experience. The 3-D survey consisted of 26 north-south lines
8 spaced 80 metres apart, an 80 metres source interval, and 40 metre receiver interval,
9 resulting in a 20 by 20 metre subsurface bin size after 3D migration.

10 Results of the 3-D survey were good and provided a detailed picture of the Stanley reef.
11 The more accurate structure and outline of the reef provided by the 3-D survey was one
12 of the primary pieces of information used to define the boundaries of proposed
13 Designated Storage Area.

14 **Reservoir Containment - Caprock Seal**

15 Guelph pinnacle reefs are overlain by the Salina A-2 Anhydrites that provide the caprock
16 seal for the reefs. At the Stanley 4-7-XI Pool, the A-2 Anhydrite is 4.8 metres in thickness
17 at the Huron #3 well, 1.2 metres at the Huron #4 well, and 7.4 metres at the Tribute et
18 al #25 well. This compares to other reefs in Huron County that have A-2 Anhydrite
19 thicknesses that range from 0.5 metres to over 10 metres. In addition to the A-2
20 Anhydrite, the basal portion of the A-2 Carbonate is a very dense mudstone that also
21 contributes to the effectiveness of the caprock.

22 The Tribute et al #25 – Stanley 3-7-XI well cored the lower A-2 Carbonate, A-2 Shale, and
23 the A-2 Anhydrite caprock of the Stanley 4-7-XI reef. The core was analyzed for porosity
24 and permeability, as well as other rock properties, and then be submitted to threshold
25 pressure tests to confirm the effectiveness of the caprock. The tests were performed by
26 AGAT Labs in Calgary. The final results are submitted as Schedule 4 of the Reservoir
27 Engineering Report and are discussed in that section.

28 **Designated Storage Area**

29 The proposed Designated Storage Area (DSA) has a mapped outline that includes tracts
30 2 of Lot 7, Concession 12; tracts 1 of Lot 6, 7 and 8, Concession 12; and tracts 2, 3 and 4
31 of Lot 6, 7 and 8, Concession 11. The proposed DSA is shown in Schedule 16 together
32 with the reef outline interpreted from the 3-D seismic survey. Distances from the reef
33 edges to the DSA boundary are shown in Schedule 17 and are as follows: 375 metres to
34 the north boundary; 215 metres to the east boundary; 365 metres to the south
35 boundary; and 260 metres to the west boundary. There are a total of 325 acres
36 included in the proposed DSA boundary.

As discussed above, 2 wells have been drilled inside the proposed DSA boundary in addition to the Huron #3, Huron #4 and Tribute #25 wells. The McKinley No.1 and Martin No.1 off-reef wells both offer good geological evidence that there is no sucrosic A-1 porosity surrounding the Stanley reef. Neither well encountered oil, gas or water shows in the A-1 Carbonate section and both A-1 sections were predominately limestone. The proposed distance of 215 metres on the eastern side of the reef is sufficient protection on that side of the reef as the McKinley No.1 well encountered no A-1 Carbonate sucrosic porosity. The MNR technical staff have agreed with and approved this evaluation (Schedule 18).

Designing a DSA boundary requires a balance between protecting the reservoir and not eliminating lands from further exploration. The proposed DSA has been designed to be large enough to protect the integrity of the Stanley 4-7-XI storage reservoir and any possible A-1 sucrosic porosity that may be attached to the reef, without being excessive.

Reservoir Development

The development of the Stanley 4-7-XI Pool reservoir will include three Injection/Withdrawal (I/W) wells in order to provide complete cycling of the entire working inventory on an annual basis. Bayfield Resources et al #3 (Horiz.#1) and Bayfield Resources #3 (Horiz.#1-Lat.#1) will be drilled as I/W wells in the pool. Bayfield Resources et al #3 (Horiz.#1) will be drilled at a surface location in the southern end of the reef and be drilled horizontally to target porosity zones in the northern sections of the reef. One lateral well, Bayfield Resources et al #3 (Horiz.#1-Lat.#1) will be kicked from the Bayfield Resources et al #3 (Horiz.#1) wellbore. The surface and horizontal locations were all selected based on geological information from existing wellbores and the detailed structure and outline of the reef provided by the 3-D seismic. The horizontal paths are planned to maximize the intersection of porosity and permeability zones within the reef.

The Tribute et al #25 (Horiz.#1) well will be kicked from the Tribute et al #25 vertical well and directionally drilled to the west to also be used as an I/W well. This directional well will intersect the lower porosity zone seen in the Tribute et al #25 well, expected to be in that area of the reef.

Bayfield Resources et al #4 will be drilled as an Observation Well and will be situated approximately 50 metres south of the Huron #3 well.

The proposed surface locations and horizontal paths are shown in Schedule 19. Schedule 20 depicts the proposed wells in cross-section. Well License Applications for the planned wells are attached as Tab D.

1 **Conclusions**

2 The Stanley 4-7-XI Pool is a full pinnacle reef buildup that is approximately 105 metres in
3 height. Two wells penetrating the reef exhibited excellent gas flows indicative of very
4 good porosity and permeability within portions of the reef. Other portions of the
5 porosity within the reef have been severely plugged with salt.

6 The reef is overlain by 4.8 metres of anhydrite at the Huron #3 well, 1.2 metres of
7 anhydrite at the Huron #4 well, and 7.4 metres of anhydrite at the Tribute et al #25 well,
8 all which provide an excellent caprock seal for the reservoir. This caprock has been
9 cored and analyzed to determine its threshold capabilities.

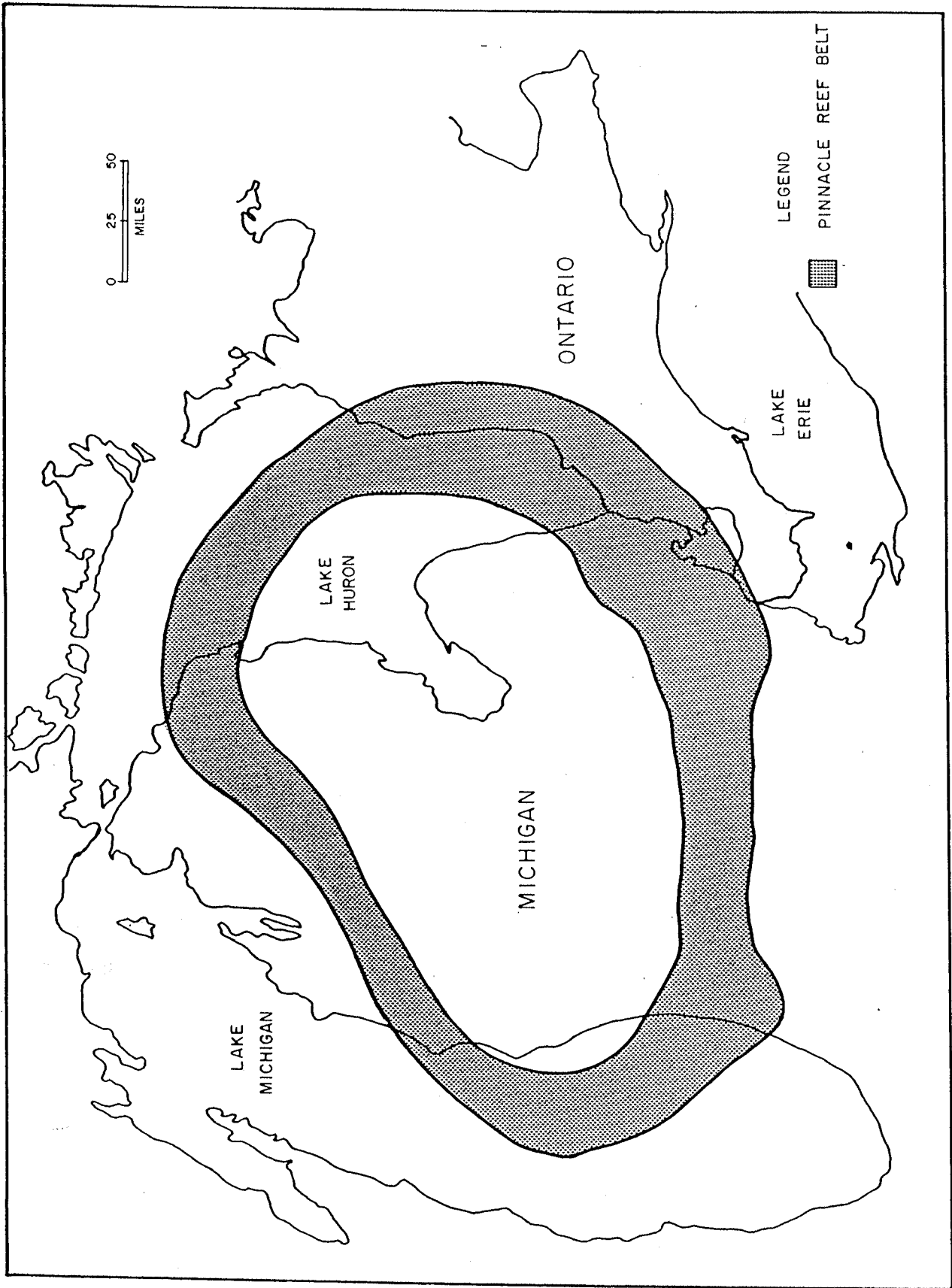
10 A Designated Storage Boundary has been proposed that will protect the reef itself but
11 also the possibility of any A-1 Carbonate sucrosic porosity that may be present
12 surrounding the reef.

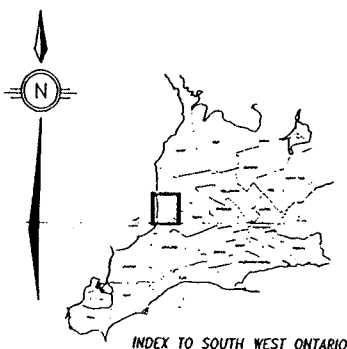
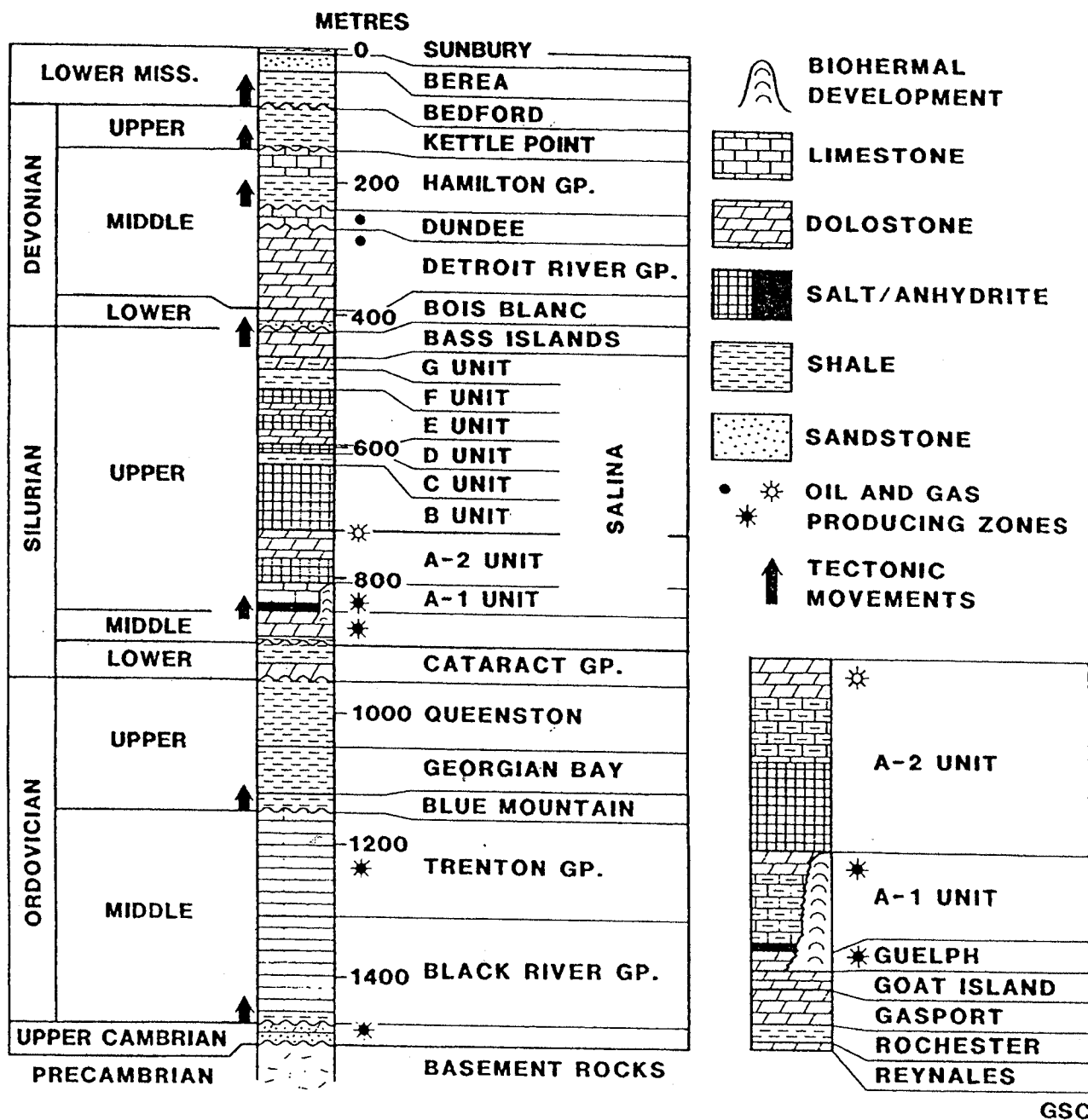
13

14 N.Hoey, P.Geo.

15 September 15, 2009.

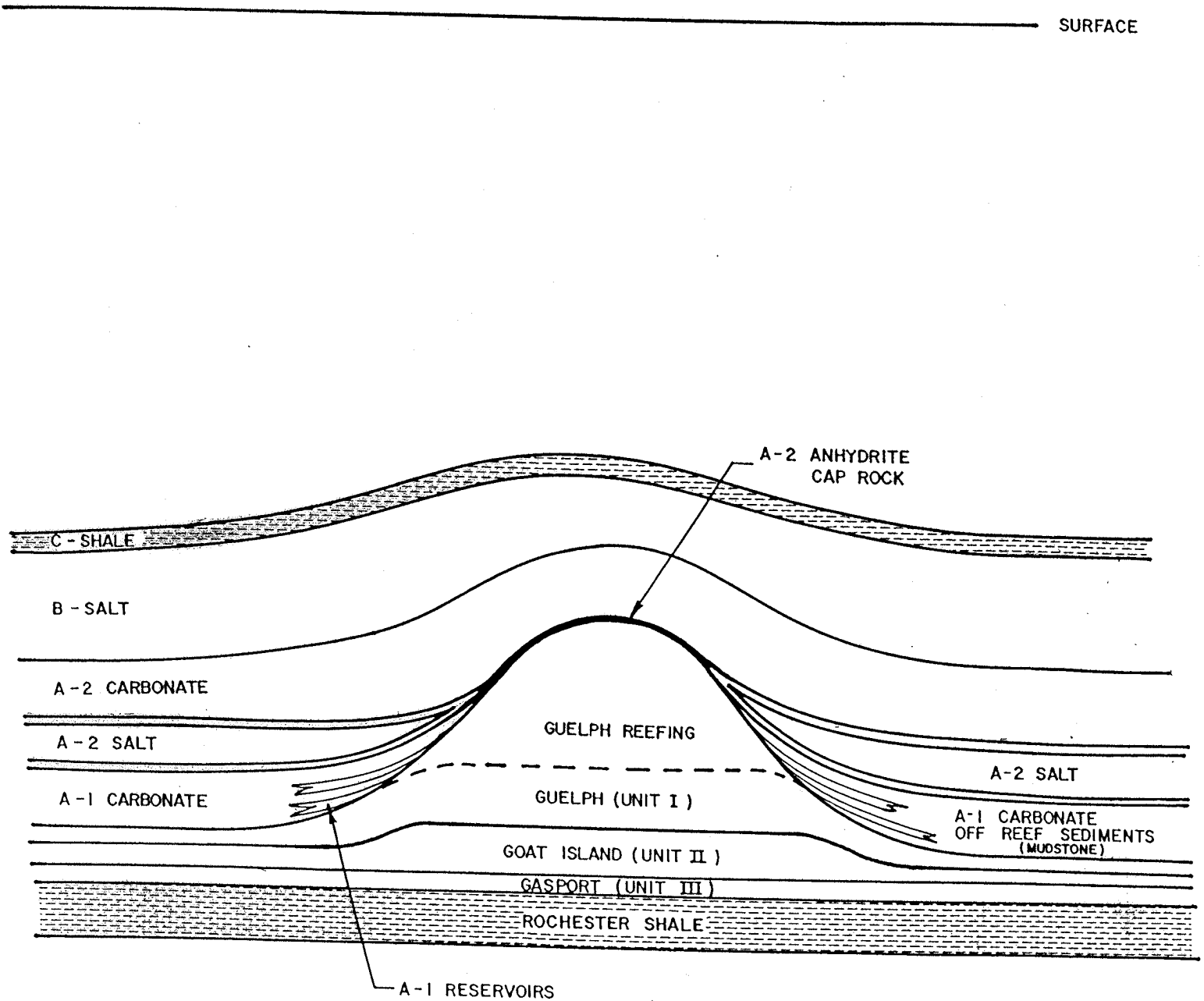
MICHIGAN BASIN of S. W. ONTARIO & MICHIGAN





TRIBUTE RESOURCES	
Stratigraphic Section Southwestern Ontario	
Southwestern Ontario	
Township	County, Ontario
Scale:	By: B.V. Sanford
Date: November 2003	Figure: 3
Edmund Welychka - Geological & Geophysical Consulting	

SCHEMATIC SECTION
PINNACLE REEF



STANLEY 4-7-XI REEF

Well No.	Lot	Concession	Well Name	Permit No.	Log	Year Drilled	Tray No.	KB	C Shale
1	7	XI	Huron #4, Stanley 3-7-XI	6307	Y	1983	1971	264.5	-111.3
2	7	XI	Huron #3, Stanley 4-7-XI	5885	Y	1982	1980	270.5	-105.5
3	7	XI	Tribute et al #25, Stanley 3-7-XI	11820	Y	2008	na	264.7	-111.3
4	7	XI	Imperial 497 - McKinley No.1, Stanley 2-7-XI	F011877	N	1955	4700	274.3	-106.7
5	7	XII	Bluewater Oil & Gas- Martin No.1, Stanley 2-7-XII	F011876	N	1957	8474	248.7	-123.2

STANLEY 4-7-XI REEF

B Salt	A2 Carb	A2 Shale	A2 Salt	A2 Anhy	A1 Carb	A1 Evap	Guelph	Goat Isl.	Gasport	Rochester	TD
-139.5	-184.6	-203.0	nil	-204.5	nil	nil	-205.7	nde	nde	nde	-311.5
-122.5	-178.5	-197.8	nil	-202.0	nil	nil	-206.8	-310.8	-332.1	-338.7	-344.5
-129.8	-188.3	-208.2	nil	-209.8	nil	nil	-217.2	nde	nde	nde	-318.3
-138.9	-217.6	-250.0	-258.5	-275.9	-278.9	-311.5	-320.0	-329.8	?	?	-348.7
-146.9	-229.8	-272.5	nil	-281.0	-284.1	-323.7	-328.3	-335.9	-342.6	-347.5	-357.6

CTY: Huron	TWP: Stanley	TRACT: 4	LOT: 7	CON: XI
WELL NAME: Huron 3			WELL ID: T005885	CLASS: NPW
OPERATOR: Tribute Resources Inc.		Target: SAL	STATUS: GP - ABD	

<u>DRILLING DATA</u>	<u>DATES</u>	<u>COORDINATES</u>	<u>SAMPLES</u>
RIG TYPE: Cable	LICENCE ISSUED: 1982-06-22	N/S BOUND: 262.10 N	TRAY: 1980
GRND ELEV: 270.00	SPUD DATE:	E/W BOUND: 224.00 E	<u>POOL</u>
KB ELEV: 270.50	TD DATE: 1982-08-30	NAD 83	Stanley 4-7-XI Pool
TVD: 615.00 PBTD:	COMPLETE DATE:	SURF LAT: 43.48044167 SURF LONG: -81.64716111	
	WORKOVER DATE:	BOT LAT: 43.48044167 BOT LONG: -81.64716111	
	PLUG DATE: 2008-11-19		

FORMATION	TOP	TVD	ELEV
Drift	0.50	0.50	270.00
Top of Bedrock	89.40	89.40	181.10
Dundee	89.40	89.40	181.10
Lucas	107.00	107.00	163.50
Amherstburg	149.00	149.00	121.50
Bois Blanc	174.00	174.00	96.50
Bass Islands/Bertie	239.90	239.90	30.60
G Unit	284.20	284.20	-13.70
F Unit	292.40	292.40	-21.90
E Unit	325.60	325.60	-55.10
D Unit	366.70	366.70	-96.20
C Unit	376.00	376.00	-105.50
B Unit	387.00	387.00	-116.50
B Salt	393.00	393.00	-122.50
B Anhydrite	447.60	447.60	-177.10
A-2 Carbonate	449.00	449.00	-178.50
A-2 Anhydrite	472.50	472.50	-202.00
A-1 Carbonate	477.30	477.30	-206.80
Guelph	502.70	502.70	-232.20
Goat Island	581.30	581.30	-310.80
Gasport	602.60	602.60	-332.10
Rochester	609.40	609.40	-338.90
Cabot Head	612.30	612.30	-341.80

COMMENTS
Latitude and longitude using 2006 Orthos in PetroGIS (AC, Sept 2008).

INITIAL GAS INTERVAL	FLOW 1000 m3/dM	SIP kPag
477.30 -		
530.00 - 555.00	0.025	

INITIAL OIL INTERVAL	FLOW m3/d	SIP kPag

WATER RECORD INTERVAL	STATIC LEVEL	TYPE
100.00 - 120.00	40.00	Sulphur

LOGGING RECORD INTERVAL	TYPE	COMPANY
78.00 - 615.00	Gamma Ray Neutron	Schlumberger
444.00 - 616.00	Dipmeter	Schlumberger
287.00 - 613.00	Dual Induction Laterolog	Schlumberger
288.00 - 612.00	Compensated Neutron Formation Density	Schlumberger
0.00 - 587.90	Vertilog - casing inspection log	Baker Hughes
47.00 - 486.20	Cement Bond	Weatherford

Casing O.D. (mm)	Weight (kg/m)	Setting Depth (m)	How Set
178.05	29.79	291.50	CEM
405.89	81.89	71.30	SHO
218.95	35.70	124.40	CEM
178.05	29.79	291.50	CEM
273.05	60.30	92.00	SHO
218.95	35.70	124.40	CEM
273.05	60.30	92.00	SHO
405.89	81.89	71.30	SHO

CTY: Huron	TWP: Stanley	TRACT: 3	LOT: 7	CON: XI
WELL NAME: HURON #4			WELL ID: T006307	CLASS: NPW
OPERATOR: Tribute Resources Inc.		Target: SAL	STATUS: GP - SUS	

<u>DRILLING DATA</u>	<u>DATES</u>	<u>COORDINATES</u>	<u>SAMPLES</u>
RIG TYPE: Rotary	LICENCE ISSUED: 1983-08-05	N/S BOUND: 354.40 N	TRAY: 1971
GRND ELEV: 262.49	SPUD DATE:	E/W BOUND: 269.10 E	<u>POOL</u>
KB ELEV: 264.50	TD DATE: 1983-08-17	NAD 83	Stanley 4-7-XI Pool
TVD: 576.00 PBTD:	COMPLETE DATE:	SURF LAT: 43.48148639 SURF LONG: -81.64688833	
	WORKOVER DATE:	BOT LAT: 43.48148639 BOT LONG: -81.64688833	
	PLUG DATE:		

FORMATION	TOP	TVD	ELEV
Drift	2.00	2.00	262.50
Top of Bedrock	69.80	69.80	194.70
Dundee	69.80	69.80	194.70
Lucas	103.40	103.40	161.10
Amherstburg	147.60	147.60	116.90
Bois Blanc	172.00	172.00	92.50
Bass Islands/Bertie	247.00	247.00	17.50
G Unit	284.00	284.00	-19.50
F Unit	292.10	292.10	-27.60
E Unit	325.00	325.00	-60.50
C Unit	375.80	375.80	-111.30
B Unit	387.40	387.40	-122.90
B Salt	404.00	404.00	-139.50
B Anhydrite	445.00	445.00	-180.50
A-2 Carbonate	449.10	449.10	-184.60
A-2 Anhydrite	469.00	469.00	-204.50
A-1 Carbonate	470.20	470.20	-205.70
Guelph	501.70	501.70	-237.20

COMMENTS
Latitude and longitude using 2006 Orthos in PetroGIS (AC, Sept 2008).

INITIAL GAS INTERVAL	FLOW 1000 m3/dM	SIP kPag
497.00 - 576.00	169.400	2775.97

INITIAL OIL INTERVAL	FLOW m3/d	SIP kPag

WATER RECORD INTERVAL	STATIC LEVEL	TYPE
-		

LOGGING RECORD INTERVAL	TYPE	COMPANY
25.00 - 574.00	Compensated Neutron Formation Density	Schlumberger

Casing O.D. (mm)	Weight (kg/m)	Setting Depth (m)	How Set
274.07	60.30	128.40	SHO
115.06	14.09	497.60	CEM
178.05	29.79	289.70	CEM
340.11	71.40	101.00	CEM
59.94	6.99	573.20	OTH

CTY: Huron	TWP: Stanley	TRACT: 3	LOT: 7	CON: XI
WELL NAME: Tribute et al #25			WELL ID: T011820	CLASS: DEV
OPERATOR: Tribute Resources Inc.		Target: SAL	STATUS: GS - POT	

DRILLING DATA	DATES	COORDINATES	SAMPLES
RIG TYPE: Cable	LICENCE ISSUED: 2008-05-01	N/S BOUND: 139.10 N	TRAY: 11678/79
GRND ELEV: 263.40	SPUD DATE:	E/W BOUND: 305.20 E	<u>POOL</u>
KB ELEV: 264.70	TD DATE: 2008-10-22	NAD 83	
TVD: 583.00 PBTD:	COMPLETE DATE:	SURF LAT: 43.47940528	
	WORKOVER DATE:	SURF LONG: -81.64593528	
	PLUG DATE:	BOT LAT: 43.47940528	
		BOT LONG: -81.64593528	

FORMATION	TOP	TVD	ELEV
Drift	1.30	1.30	263.40
Top of Bedrock	91.00	91.00	173.70
Dundee	91.00	91.00	173.70
Lucas	101.50	101.50	163.20
Amherstburg	141.00	141.00	123.70
Bois Blanc	168.00	168.00	96.70
Bass Islands/Bertie	234.00	234.00	30.70
G Unit	284.00	284.00	-19.30
F Unit	291.50	291.50	-26.80
E Unit	318.50	318.50	-53.80
D Unit	338.00	338.00	-73.30
C Unit	376.00	376.00	-111.30
B Unit	388.00	388.00	-123.30
B Salt	394.50	394.50	-129.80
B Anhydrite	453.00	453.00	-188.30
A-2 Carbonate	453.50	453.50	-188.80
A-2 Shale	472.90	472.90	-208.20
A-2 Anhydrite	474.50	474.50	-209.80
Guelph	481.90	481.90	-217.20

COMMENTS

INITIAL GAS INTERVAL	FLOW 1000 m3/dM	SIP kPag
580.00 -		

INITIAL OIL INTERVAL	FLOW m3/d	SIP kPag

WATER RECORD INTERVAL	STATIC LEVEL	TYPE
11.00 -		Fresh
81.00 -	73.00	Sulphur

LOGGING RECORD INTERVAL	TYPE	COMPANY
0.00 - 471.70	Vertilog - casing inspection log	Baker Hughes
0.00 - 580.90	Gamma Ray Neutron	Baker Hughes
0.00 - 471.60	Casing Collar Locator	Baker Hughes
0.00 - 580.90	Caliper	Baker Hughes
0.00 - 126.00	Cement Bond	Weatherford
0.00 - 269.50	Cement Bond	Weatherford

Casing O.D. (mm)	Weight (kg/m)	Setting Depth (m)	How Set
178.00	29.76	482.20	CEM
340.00	81.10	92.11	CEM
406.00	96.73	83.00	DRI
219.00	35.60	294.56	CEM
273.00	60.26	134.80	CEM

CTY: Huron	TWP: Stanley	TRACT: 2	LOT: 7	CON: XI
WELL NAME: Imperial 497 - McKinley No. 1			WELL ID: F011877	CLASS: DEV
OPERATOR: Imperial Oil Ltd		Target: CLI	STATUS: DH - ABD	

DRILLING DATA	DATES	COORDINATES	SAMPLES
RIG TYPE:	LICENCE ISSUED:	N/S BOUND: 30.00 N	TRAY: 4700
GRND ELEV: 273.71	SPUD DATE:	E/W BOUND: 365.80 W	<u>POOL</u>
KB ELEV: 274.32	TD DATE: 1955-01-27	NAD 83	
TVD: 623.01 PBTD:	COMPLETE DATE:	SURF LAT: 43.47873639 SURF LONG: -81.64133250	
	WORKOVER DATE:	BOT LAT: 43.47873639 BOT LONG: -81.64133250	
	PLUG DATE: 1955-02-08		

FORMATION	TOP	TVD	ELEV
Drift	0.60	0.60	273.72
Top of Bedrock	75.60	75.60	198.72
Lucas	75.60	75.60	198.72
Bass Islands/Bertie	240.80	240.80	33.52
G Unit	290.80	290.80	-16.48
F Unit	297.80	297.80	-23.48
F Salt	341.40	341.40	-67.08
E Unit	344.40	344.40	-70.08
D Unit	374.30	374.30	-99.98
C Unit	381.00	381.00	-106.68
B Salt	413.30	413.30	-138.98
A-2 Carbonate	491.90	491.90	-217.58
A-2 Salt	532.80	532.80	-258.48
A-2 Anhydrite	550.20	550.20	-275.88
A-1 Carbonate	553.20	553.20	-278.88
A-1 Evaporite	585.80	585.80	-311.48
Guelph	592.50	592.50	-318.18
Reynales/Fossil Hill	616.00	616.00	-341.68
Cabot Head	620.30	620.30	-345.98

COMMENTS
Latitude and longitude corrected using GIS (K.M. - May '02).

INITIAL GAS INTERVAL	FLOW 1000 m3/dM	SIP kPag
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INITIAL OIL INTERVAL	FLOW m3/d	SIP kPag
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WATER RECORD INTERVAL	STATIC LEVEL	TYPE
86.90 - 88.70	25.90	Fresh

LOGGING RECORD INTERVAL	TYPE	COMPANY
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Casing O.D. (mm)	Weight (kg/m)	Setting Depth (m)	How Set
273.05		129.20	
178.05		291.70	
340.11		79.20	

CTY: Huron	TWP: Stanley	TRACT: 2	LOT: 7	CON: XII
WELL NAME: Bluewater Oil & Gas - Martin No. 1			WELL ID: F011876	CLASS: DEV
OPERATOR: Prenalta Minerals Inc.		Target: CLI	STATUS: DH - ABD	

<u>DRILLING DATA</u>	<u>DATES</u>	<u>COORDINATES</u>	<u>SAMPLES</u>
RIG TYPE:	LICENCE ISSUED:	N/S BOUND: 121.90 N	TRAY: 8474
GRND ELEV: 248.10	SPUD DATE:	E/W BOUND: 274.30 W	<u>POOL</u>
KB ELEV: 248.72	TD DATE: 1957-07-05	NAD 83	
TVD: 606.25 PBTD:	COMPLETE DATE:	SURF LAT: 43.47826417 SURF LONG: -81.65299972	
	WORKOVER DATE:	BOT LAT: 43.47826417 BOT LONG: -81.65299972	
	PLUG DATE: 1957-07-11		

FORMATION	TOP	TVD	ELEV
Drift	0.60	0.60	248.12
Top of Bedrock	58.20	58.20	190.52
Lucas	58.20	58.20	190.52
Bois Blanc	167.00	167.00	81.72
Bass Islands/Bertie	225.60	225.60	23.12
G Unit	275.50	275.50	-26.78
F Unit	284.70	284.70	-35.98
F Salt	328.60	328.60	-79.88
E Unit	335.30	335.30	-86.58
D Unit	363.00	363.00	-114.28
C Unit	371.90	371.90	-123.18
B Salt	395.60	395.60	-146.88
A-2 Carbonate	478.50	478.50	-229.78
A-1 Carbonate	532.80	532.80	-284.08
A-1 Evaporite	570.90	570.90	-322.18
Guelph	577.00	577.00	-328.28
Rochester	596.20	596.20	-347.48
Reynales/Fossil Hill	600.50	600.50	-351.78
Cabot Head	603.80	603.80	-355.08

COMMENTS
Latitude and longitude corrected using GIS (K.M. - May '02).

INITIAL GAS INTERVAL	FLOW 1000 m3/dM	SIP kPag
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INITIAL OIL INTERVAL	FLOW m3/d	SIP kPag
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WATER RECORD INTERVAL	STATIC LEVEL	TYPE
19.80 -	10.70	Fresh
75.90 -	57.90	Fresh

LOGGING RECORD INTERVAL	TYPE	COMPANY
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Casing O.D. (mm)	Weight (kg/m)	Setting Depth (m)	How Set
273.05	49.09	118.90	
340.11	71.40	58.20	
178.05	25.30	340.80	BHP
218.95	35.70	287.10	BHP

LOT 9
CON 12

TRIBUTE
RESOURCES INC.

Schedule 10
Page 19 of 29

LOT 8
CON 12



Proposed Designated Storage Area

LOT 5
CON 11

LOT 4
CON 12

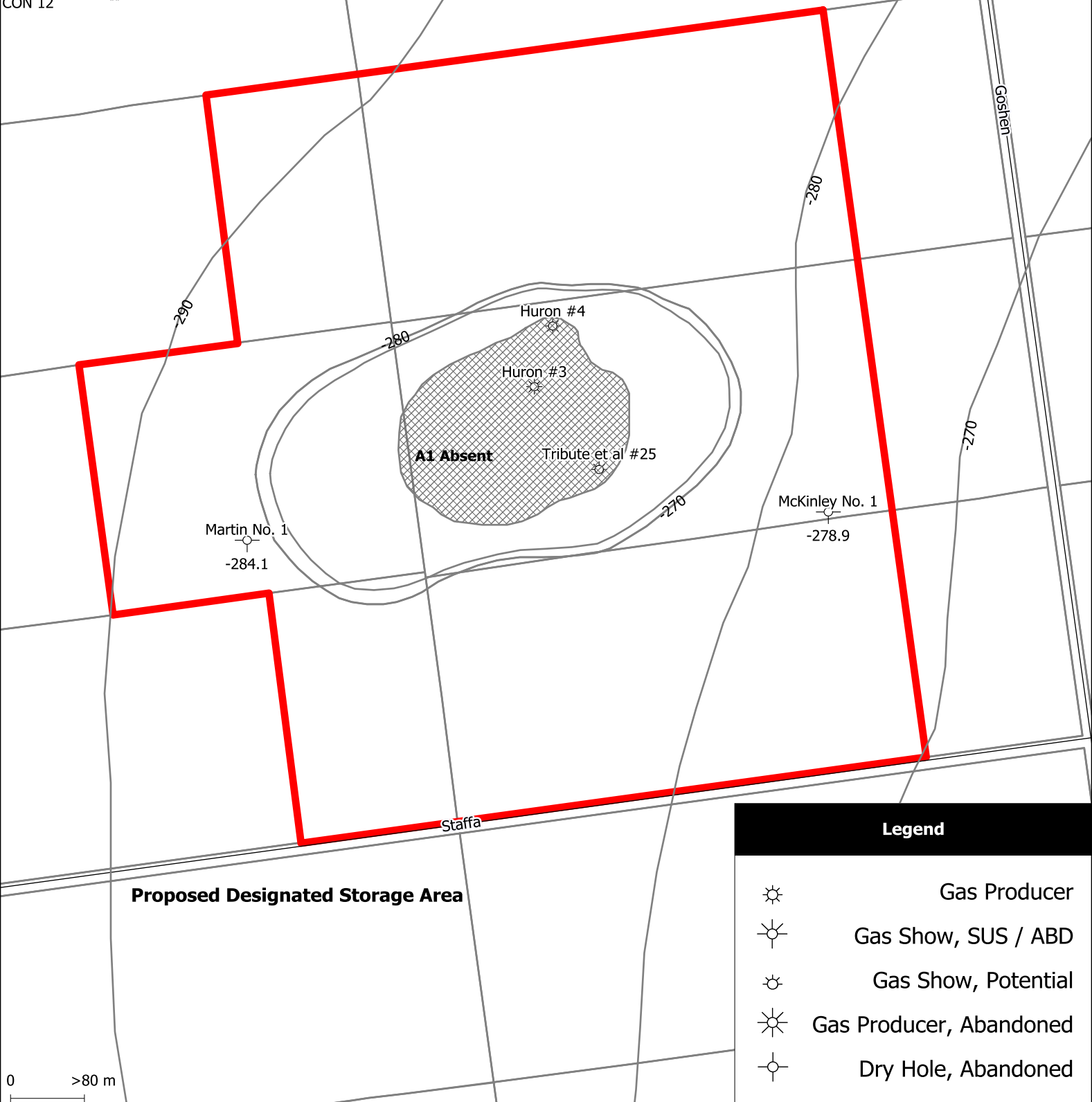
Legend	
	Gas Producer
	Gas Show, SUS / ABD
	Gas Show Potential
	Gas Producer, Abandoned
	Dry Hole, Abandoned

Stanley 4 - 7 - XI Pool Guelph Structure

Universal Transverse Mercator - Zone 17 (N).
Contour Interval: 10m. All Units Metric.
Lon: 81°38'50" W
Lat: 43°28'37" N
Prepared by: J.C. for Tribute Resources Inc.
Printed at: 15/09/2009

LOT 9
CON 12

LOT 9
CON 11

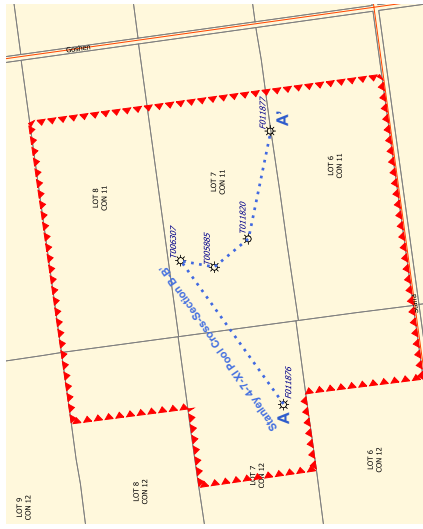


Legend

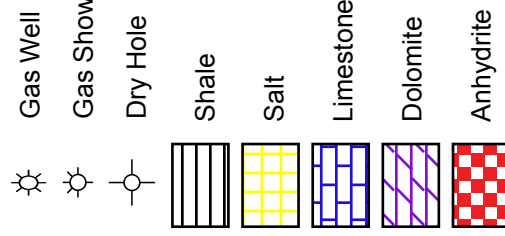
- Gas Producer
- Gas Show, SUS / ABD
- Gas Show, Potential
- Gas Producer, Abandoned
- Dry Hole, Abandoned

Stanley 4 - 7 - XI Pool A1 Carbonate Structure

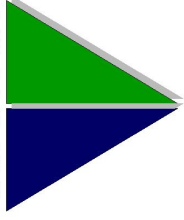
Universal Transverse Mercator - Zone 17 (N).
Contour Interval: 10m. All Units Metric.
Lon: 81°38'49" W
Lat: 43°28'47" N
Prepared by: J.C. for Tribute Resources Inc.
Printed at: 15/09/2009



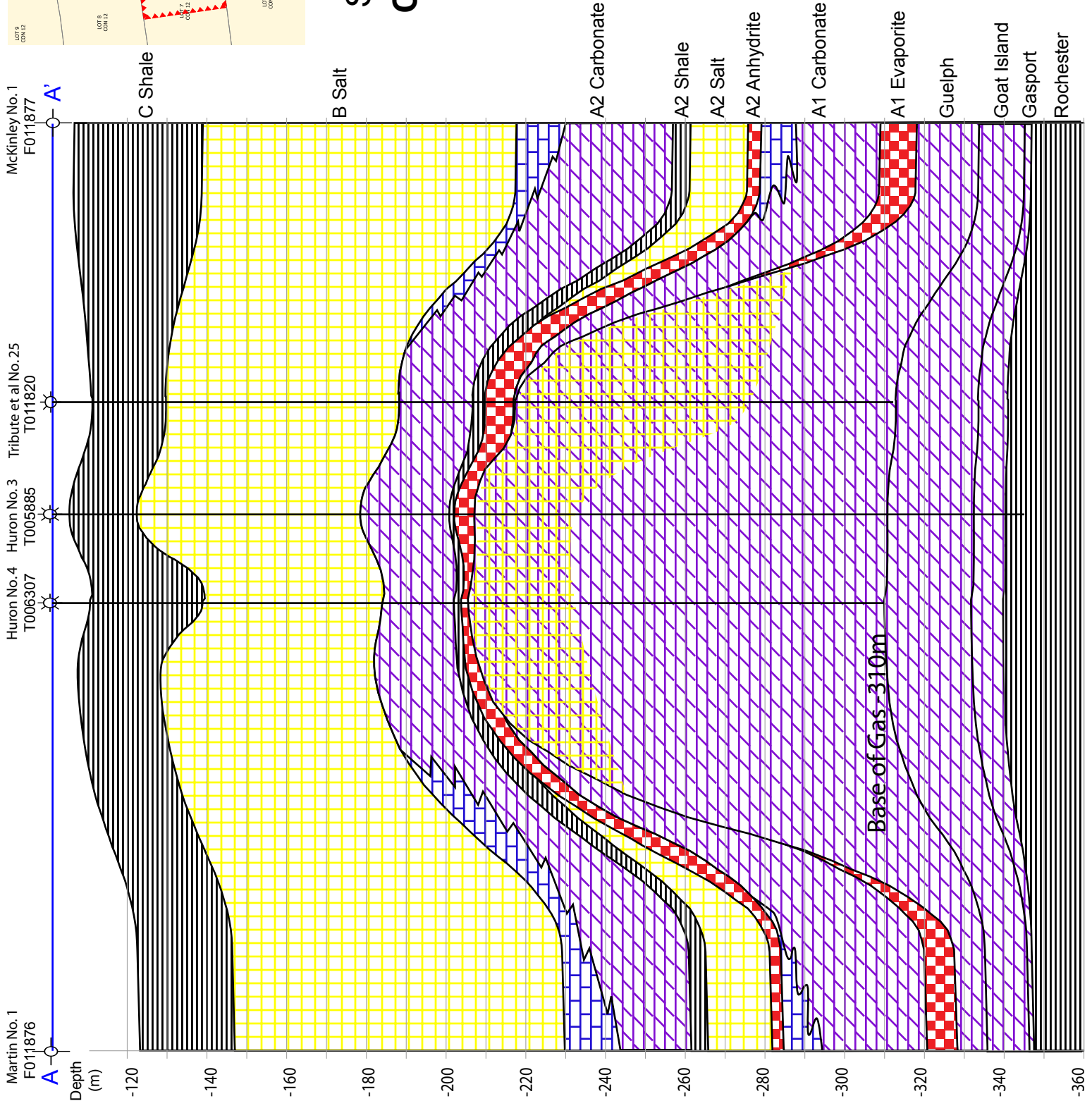
Stanley 4-7-XI Pool Cross-Section A-A'



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RESOURCES INC.



July 13, 2009
Prepared by J.C. for
Tribute Resources Inc.





Goshen

LOT 8
CON 12



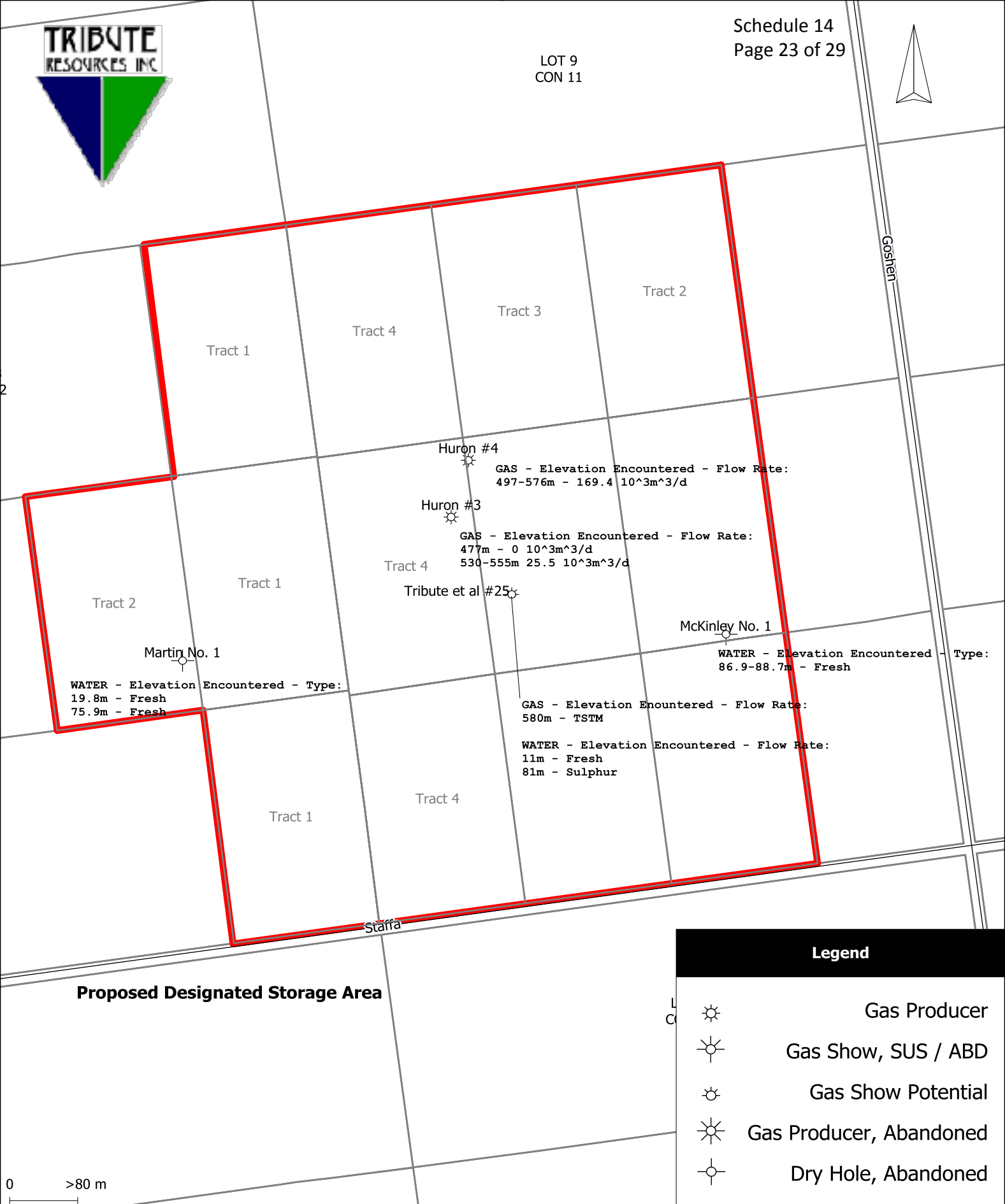
Proposed Designated Storage Area

Legend	
	Gas Producer
	Gas Show, SUS / ABD
	Gas Show Potential
	Gas Producer, Abandoned
	Dry Hole, Abandoned

0 >80 m

Stanley 4 - 7 - XI Pool Gross Gas Isopach

Universal Transverse Mercator - Zone 17 (N).
Contour Interval: 10m. All Units Metric.
Lon: 81°38'51" W
Lat: 43°28'43" N
Prepared by: J.C. for Tribute Resources Inc.
Printed at: 15/09/2009

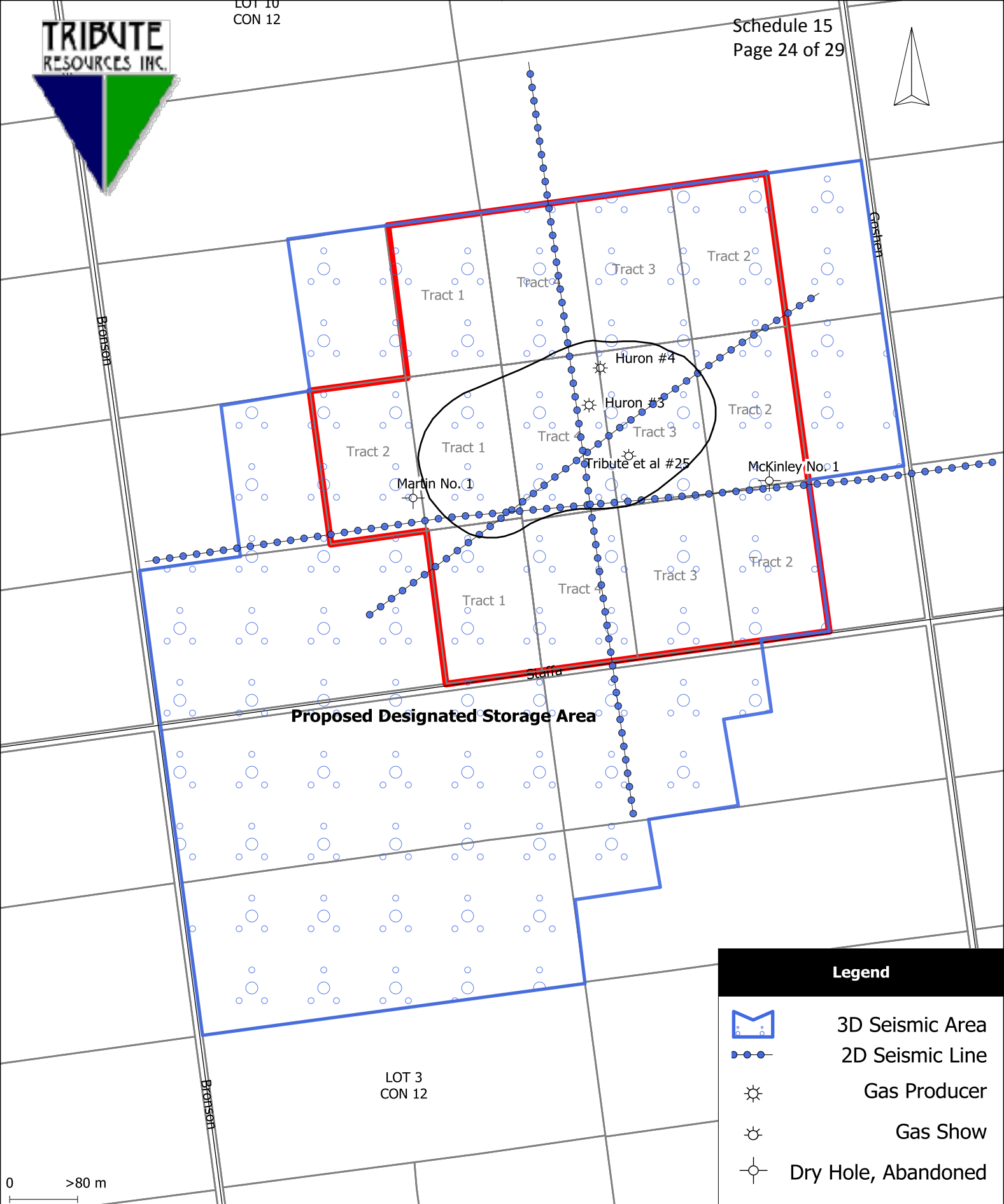


Legend

-  Gas Producer
-  Gas Show, SUS / ABD
-  Gas Show Potential
-  Gas Producer, Abandoned
-  Dry Hole, Abandoned

Stanley 4 - 7 - XI Pool Show Map

Universal Transverse Mercator - Zone 17 (N).
Contour Interval: 10m. All Units Metric.
Lon: 81°38'46" W
Lat: 43°28'45" N
Prepared by: J.C. for Tribute Resources Inc.
Printed at: 15/09/2009



Legend



3D Seismic Area



2D Seismic Line



Gas Producer



Gas Show



Dry Hole, Abandoned

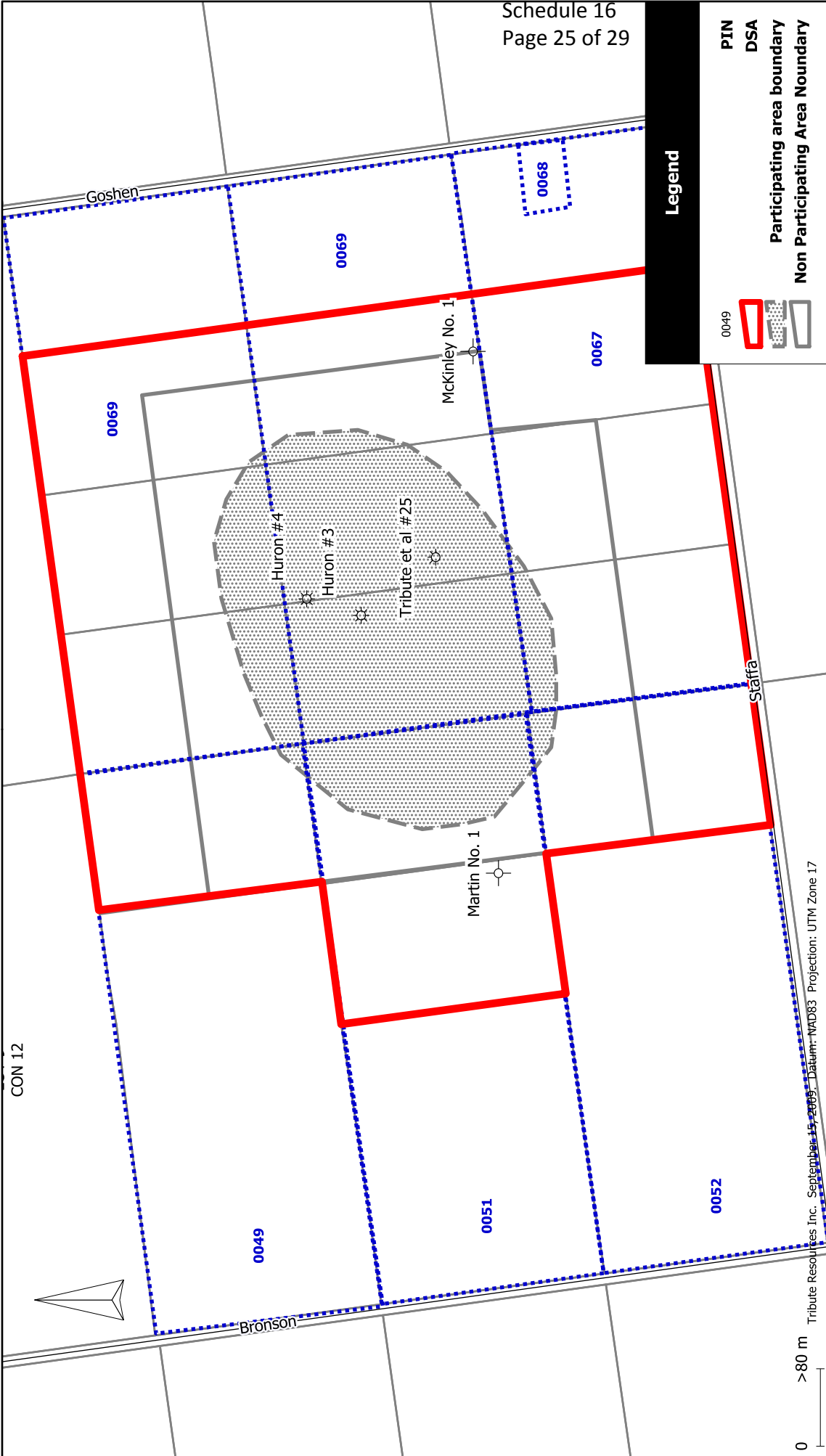
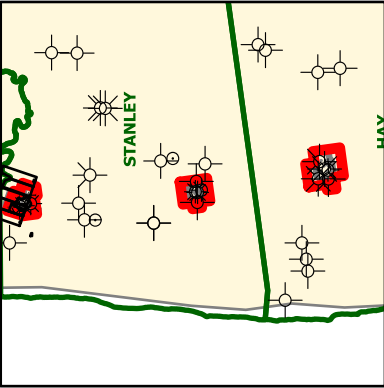
Stanley 3-7-XI Seismic Coverage

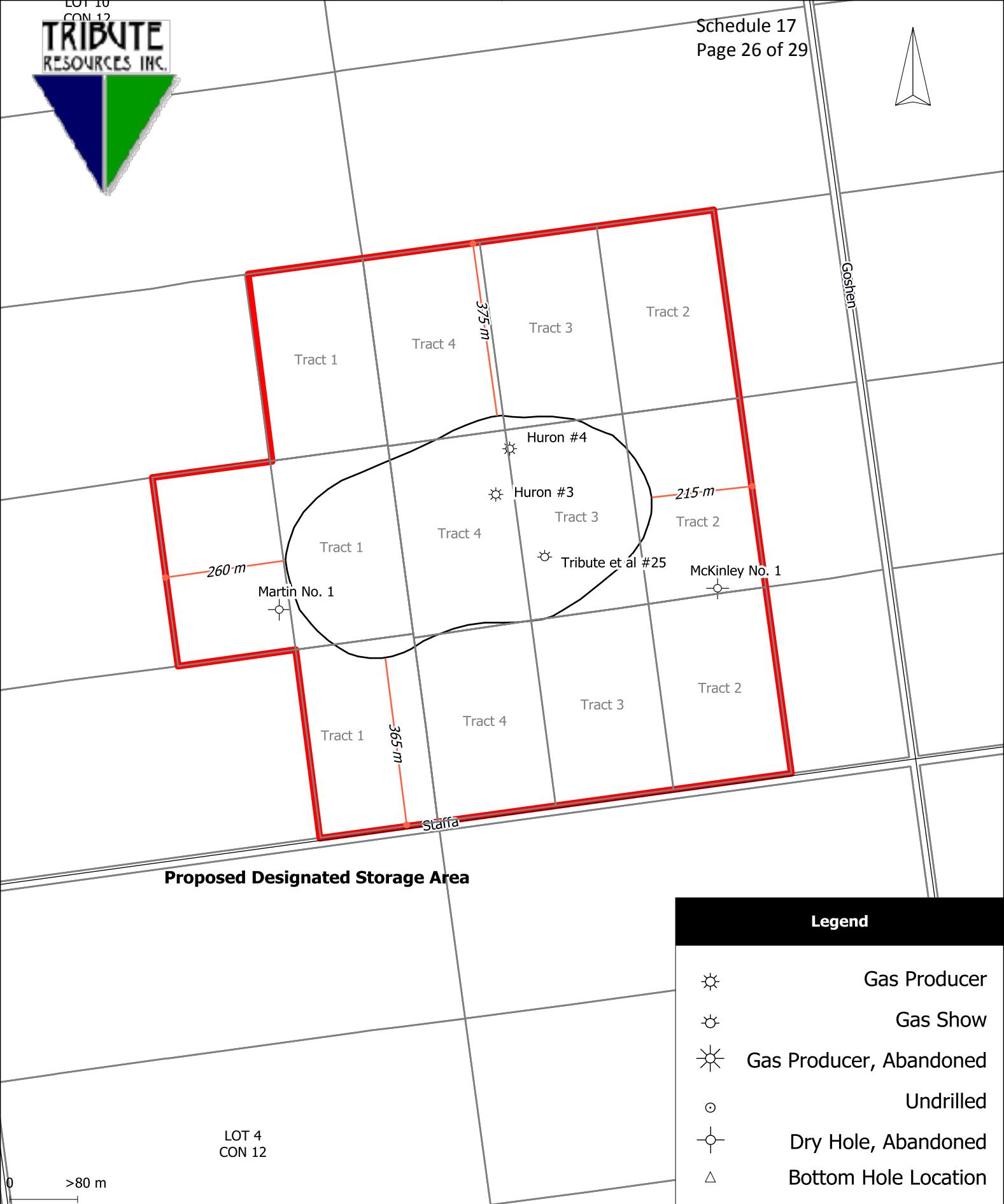
Universal Transverse Mercator - Zone 17 (N).
Contour Interval: 10m. All Units Metric.
Lon: 81°39'00" W
Lat: 43°28'33" N
Prepared by: J.C. for Tribute Resources Inc.
Printed at: 15/09/2009



Stanley 4-7-XI Pool

PIN	LANDOWNER	LOCATION
0049	Paul and Kathryn Steckle	Stanley 8-XII
0051	Harry Zandwyk	Stanley 7-XII
0052	Wayne and Anita Gingerich	Stanley 6-XII
0069	McKinley Farms Limited	Stanley 7+8-XI
0067	Keys Farms Inc.	Stanley 6-XI





Proposed Designated Storage Area

LOT 4
CON 12

Legend	
	Gas Producer
	Gas Show
	Gas Producer, Abandoned
	Undrilled
	Dry Hole, Abandoned
	Bottom Hole Location

Stanley 4-7-XI

Edge to DSA Boundary Distance

Universal Transverse Mercator - Zone 17 (N).
Contour Interval: 10m. All Units Metric.
Lon: 81°38'49" W
Lat: 43°28'42" N
Prepared by: J.C. for Tribute Resources Inc.
Printed at: 16/09/2009



RECORD OF TECHNICAL DATA REVIEWED FOR A PROPOSED DESIGNATED GAS STORAGE AREA

Date:	January 12, 2009			
Proponent:	Neil Hoey, Howard Jordan		Tribute Resources Inc.	
	(Name)		(Representing)	
DSA Name:	Stanley 4-7-XI Pool			
Zone(s):	Silurian – Guelph Pinnacle Reef			
Area:	Tracts	Lots	Concs.	Township
	2	7	12	Stanley
	1	6,7,8	12	Stanley
	2,3,4	6,7,8	11	Stanley

DATA SUBMITTED:

Well Data	Geo-physical/chemical Data	
Completion record	Seismic profile	
DST	Seismic interpretation 3-D	√
Draw down test	Gravity	
Build-up test	Magnetic	
Pressure survey	Geochemical:	
Other:	Other: Formation Tops	√

Data Retained: ☒ Yes ☐ No

COMMENTS:

Ministry staff are in agreement with the proposed area and boundaries?

☒ Yes ☐ No

R. M. Ryland

Signature – Petroleum Resources Staff

Proposed DSA has been approved by the OEB?

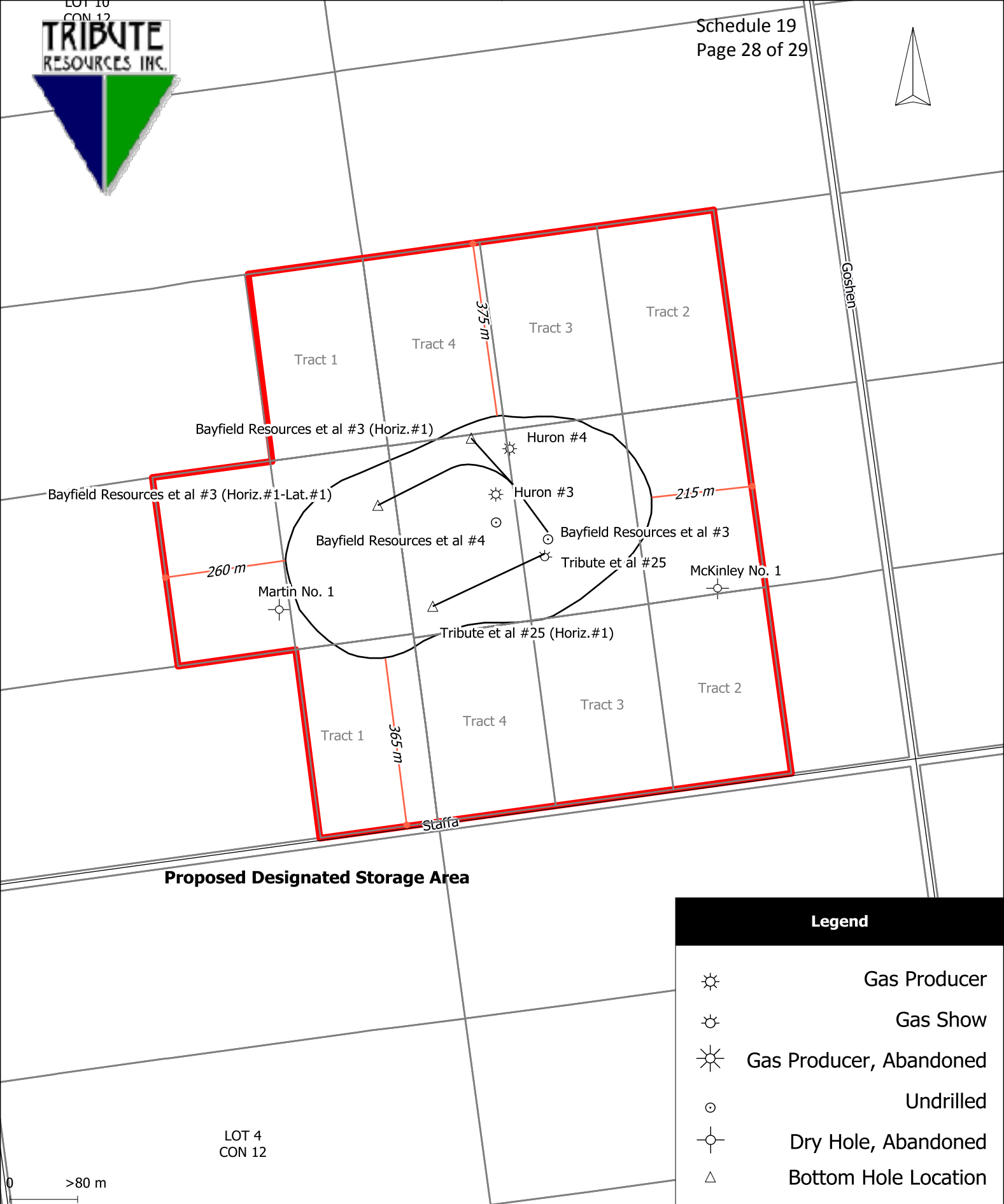
☐ Yes

If yes, return signed copy of this form to Petroleum Resources Centre.

Name	Signature	Date

MNR Use Only

Checklist	√	Initial	Date	Comments
DSA Boundary Plotted				
DSA File Created				



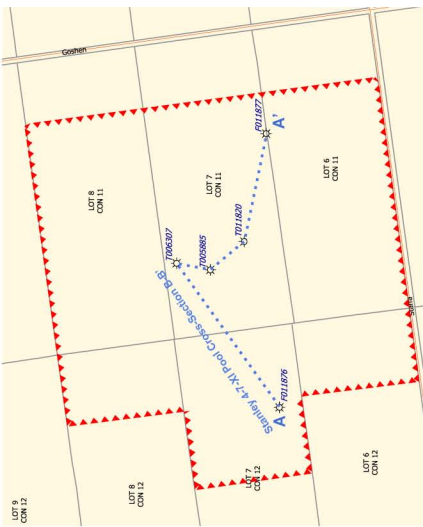
Proposed Designated Storage Area

Legend

-  Gas Producer
-  Gas Show
-  Gas Producer, Abandoned
-  Undrilled
-  Dry Hole, Abandoned
-  Bottom Hole Location

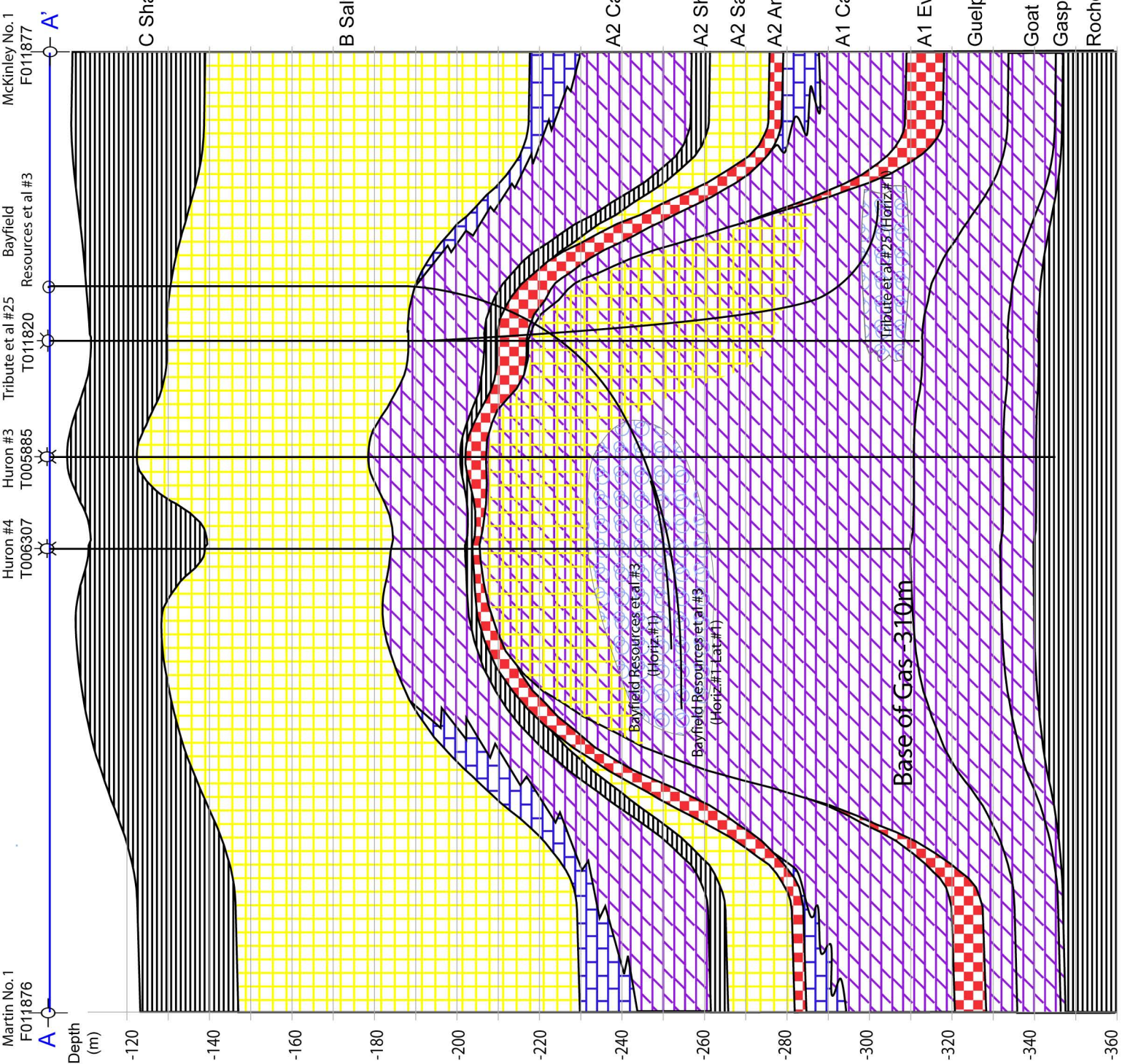
Stanley 4-7-XI Proposed Well Bores

Universal Transverse Mercator - Zone 17 (N).
Contour Interval: 10m. All Units Metric.
Lon: 81°38'49" W
Lat: 43°28'42" N
Prepared by: J.C. for Tribute Resources Inc.
Printed at: 16/09/2009



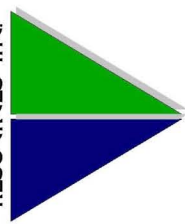
Stanley 4-7-XI Pool with Proposed Well Bores

Cross-Section A-A'



- Gas Well
- Gas Show Potential
- Dry Hole
- Shale
- Salt
- Limestone
- Dolomite
- Anhydrite
- Porosity

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Tab C

Stanley 4-7-XI Pool Reservoir Engineering Report

**September 2009
Jim McIntosh Petroleum Engineering Ltd.**

**On Behalf of
Tribute Resources Inc. and Bayfield Resources Inc.
For the Ontario Energy Board
EB-2009-0340**

Table of Contents:	Page #
Introduction	3
Original Gas-in-Place and Delta Pressure Gas-in-Place	4
Well Deliverability	8
List of Schedules:	
Schedule 1 – Production History	12
Schedule 2 – Pressure History	18
Schedule 3 – Material Balance Plot and Original Gas-in-Place	27
Schedule 4 – Threshold Pressure Testing Data: Tribute et al #25 A2 Anhydrite Core	35
Schedule 5 – AOF and Deliverability Plots – Existing wells	54
Schedule 6 – AOF and Deliverability Plots – Vertical, Deviated, and Horizontal I/W wells	63

1 **Introduction**

2 The Stanley 4-7-XI Guelph pinnacle reef was discovered in 1982 by Stanley Reef Resources with
3 the drilling of Huron #3, Stanley 4-7-XI. A second well, Huron #4, Stanley 3-7-XI, was drilled in
4 the pool prior to the start of production. The pool was produced from 1985 until mid 2001,
5 when the pool was shut in as a depleted gas storage reservoir.

6 Tribute Resources Inc. and Bayfield Resources Inc. (the “Operator”) plans to convert the Stanley
7 4-7-XI Pool to a gas storage reef. The Stanley 4-7-XI Pool Reservoir Engineering Report
8 summarizes the reservoir engineering data associated with the pool, calculates the Original
9 Gas-in-Place for the pool, calculates the Gas-in-Place and Working Gas for the pool once it is
10 delta pressured, and estimates the number and type of Injection/Withdrawal (I/W) wells that
11 will be required to cycle the Working Gas into and out of the pool on an annual basis.

Original Gas-in-Place and Delta Pressured Gas-in-Place

The Stanley 4-7-XI Guelph pinnacle reef (the “Stanley Pool”) was discovered with the drilling of Huron #3, Stanley 4-7-XI (the “Huron 3 well”) by Stanley Reef Resources in 1982. The Huron #3 well contacted an excellent quality dolomitized Guelph pinnacle reef section that flow tested at $25.5 \times 10^3 \text{ m}^3/\text{D}$ (.9 MMcfd) while drilling. No surface shut-in pressure was noted on the Form 107 for the well, however, a Wellhead AOF test was conducted on the well on September 16, 1983, which resulted in a Wellhead AOF of 1850 Mcfd, n of 0.881, C of $4.48 \times 10^{-5} \text{ MMcfd}/((\text{psia}^2)^n)$ and showed an initial shut in wellhead pressure of 2773 kPa_g (2872 kPa_a/416.6 psia).

Stanley Reef Resources followed up the discovery well with Huron #4, Stanley 3-7-XI (the “Huron #4”) in 1983. The Huron #4 well was drilled with a rotary rig with air and could not drill through the entire reef due to very strong gas flows. The Guelph pinnacle reef in this well flow tested at $169.4 \times 10^3 \text{ m}^3/\text{D}$ (6.0 MMcfd) Wellhead AOF with a surface shut-in pressure of 2776 kPa_g (2875 kPa_a/417.0 psia).

Tribute Resources et al #25, Stanley 3-7-XI was drilled during 2008 primarily to obtain a core of the cap rock to the Guelph reef. The well was cased with 178mm (7”) production casing so it can be utilized as an Injection/Withdrawal (an “I/W”) well or an observation well. The well was drilled into the leeward side of the Stanley reef, and contacted a mostly salt plugged Guelph section, with good porosity toward the base of the Guelph section in the well. No gas has been produced from this well, and the well has remained shut-in awaiting the conversion of the pool to a storage reservoir.

Production commenced from the Stanley Pool in 1985, with continuous production until 1991. The pool was shut in for most of 1992 and was onstream from December, 1992 to September, 1994, shut in until September, 1998, and produced until July, 2001. The pool has been shut-in since then. Schedule 1 contains a table and graph detailing the production history from the pool.

Annual surface shut in pressures were obtained from the Huron #3 and Huron #4 wells during the 1985 to 1988 period and from 1998 until 2005. All of these pressure points were obtained by measuring surface shut-in pressures after the well(s) had been shut in for a period of time. The shut-in times varied from 24 hours to 336 hours. This type of pressure measurement (surface shut-in pressures extrapolated to downhole pressures) gives a very good idea of the downhole reservoir pressure providing no fluid is present in the wellbore, and providing the well is shut-in long enough for the wellbore to stabilize with the reservoir pressure. To obtain downhole pressures equivalent to these surface shut-in pressures, one needs to know or assume a fluid gradient in the wellbore. If the well contains only natural gas this extrapolation of surface pressures to downhole pressures is accurate. However, if any fluid is present in the

wellbore, the reservoir pressure calculated by extrapolating the surface pressure to downhole pressure using a gas gradient will result in a calculated reservoir pressure lower than the true reservoir pressure at the time. If the shut in period prior to measuring the surface shut-in pressure is short, the shut-in well pressure may still be increasing at a slow rate as gas and associated reservoir pressure within the main porous part of the reef move toward the pressure sink caused by production from the well. In this case, the surface pressure measured and resulting extrapolated reservoir pressure will lead to a calculated reservoir pressure for the near wellbore part of the reef only and would not necessarily represent the total porous reef reservoir pressure, nor would it include any tighter gas pressure support from salt plugged parts of the reef or from halo A-1 Carb areas surrounding the reef. As the reservoir pressure in the main, porous part of the reef gets very low due to production, small quantities of gas and associated pressure contained within lower perm partially salt plugged sections of the reef or from minor porosity in any A-1 halo porosity around the perimeter of the reef will start to inflow into the main porous part of the reef, slightly supporting the shut-in pressures measured at the producing wells. Although this additional pressure support is real, from a gas storage point of view, the permeability associated with this tight gas is so small that the porosity containing this tight gas will not be an effective part of the storage pool. For both of these reasons, surface shut-in pressure data can lead to either an underestimate or a slight overestimate of actual reservoir pressures reflective of the main porosity in the pool. Schedule 2 contains a listing of basic well data from all wells in the vicinity of the Stanley Pool and lists all the surface pressure and equivalent reservoir pressure available for the pool.

To accurately measure downhole reservoir pressures, one must measure the pressure in the wellbore at the depth of the pay zone, and those pressure measurements must continue for a period of time to confirm that the wellbore pressure is stable and not still building slowly. To obtain a current accurate reservoir pressure in the Stanley Pool, electronic pressure recorders were lowered into the Tribute Resources et al #25 well on December 23rd, 2008, and retrieved on January 13th, 2009. The pressure data confirms that the full reservoir pressure is present at the wellbore, as the measured pressure was not increasing. This pressure data is more accurate than surface measured pressures extrapolated to the reservoir depth because it is recorded at the reservoir face with no requirements to assume a fluid gradient within the well. This pressure was collected, however, after the pool had been shut in for 7 ½ years due to low reservoir pressures, so it is slightly higher than the effective pool pressure at the time of production shut in due to slow pressure encroachment from tighter salt plugged sections of the reef, or from a possible small A-1 halo surrounding the reef. Schedule 2 also contains a data table and graph of this downhole pressure data.

The material balance plot for the Stanley Pool uses the original shut-in pressures from the Huron #3 and Huron #4 wells when they were initially drilled and prior to commencement of

1 production along with the downhole reservoir pressures extrapolated from surface shut in
2 pressures taken during the 1985 to 1988 period to create a P/z versus cumulative gas
3 production plot (the "P/z plot"). The data points used in this analysis reflect the higher pressure
4 initial production from the reef, and will most closely reflect the main porous reef volume
5 available in a gas storage situation where injected and withdrawn gas are turned over on an
6 annual basis. In a closed tank-type gas reservoir, the decline in reservoir pressure, adjusted for
7 the non-ideal nature of natural gas (the "z" factor or "compressibility factor") is proportional to
8 the cumulative production of natural gas from the reservoir. The compressibility factor, z, is
9 calculated based on the gas analysis obtained from the pool (sg: .660, N₂: 6.33%, CO₂: .03%) and
10 the downhole reservoir temperature (T_r = 13.1°C). This P/z plot is often called a "Material
11 Balance" plot. Schedule 3 contains the Stanley P/z plot, a pressure versus time plot, and a listing
12 of all the pressure and P/z data. The Stanley P/z plot indicates an Original Gas-in-Place (the
13 "OGIP") value of 19.28 10⁶m³ (0.684 Bcf) for the pool with a virgin reservoir pressure of
14 3010kPa_a (436.6 psia). The current pool pressure, as measured with the downhole pressure
15 recorders in late 2008/early 2009 is 270 kPa_a (39.2 psia). All of the surface pressure
16 measurements extrapolated to the reservoir face are included on the P/z plot as well as this
17 latest downhole pressure measurement, although all of the data points are not used to
18 calculate the OGIP. The pressure data points from 1995 onward are strongly influenced by gas
19 inflowing from tighter partially salt plugged parts of the reef and from minor A-1 halo porosity
20 surrounding the reef, so these pressure points have not been considered when drawing the P/z
21 straight line.

22 Because there is a straight line relationship between P/z and cumulative production, this P/z
23 plot can be used to calculate the volume of natural gas that will be contained within the Stanley
24 Pool at any pressure. This cumulative gas versus P/z factor, called the "Material Balance
25 Factor", for the Stanley Pool is 5.94 10³m³/kPa (1.446 MMcf/psi).

26 The Tribute Resources et al #25, Stanley 3-7-XI well was drilled by Tribute Resources during
27 2008 into the Stanley Pool to obtain a core of the A2 Anhydrite cap rock. Threshold pressure
28 test analyses have been performed on this core to confirm the strength of the cap rock. The
29 threshold tests confirm that the Stanley Pool is capable of handling reservoir pressures in
30 excess of the initial reservoir pressure of 3010 kPa_a (436.6 psia). The threshold tests performed
31 on this A2 anhydrite cap rock confirmed that the A2 anhydrite is a very tight (no to very low
32 permeability) zone that acts as an excellent seal over the underlying A1 Carbonate/Guelph reef.
33 The threshold testing on this core confirmed that the A2 anhydrite is capable of containing
34 underlying reservoir pressures of at least 12,000kPa (1740 psi). Schedule 4 contains a copy of
35 the AGAT threshold testing report on the Tribute Resources et al #25 A2 Anhydrite core. This
36 12,000 kPa (1740 psi) pressure, in conjunction with the depth of the A2 anhydrite at the crest of
37 the pinnacle reef trap, is often referred to as the fracture gradient for the rock. The crest of the

Stanley Pool is at a depth of 468.1m, so this anticipated threshold pressure will equate to a fracture gradient of 25.6 kPa/m (1.13 psi/ft). As a conservative estimate, the Operator has used an assumed fracture gradient of 22.6 kPa/m (1 psi/ft) in the design of the Stanley Pool for storage.

The maximum reservoir pressure (the “delta-Pressure”) planned during the storage operation is based on this assumed fracture gradient. The Operator has used a 30% safety factor on this 22.6 kPa/m (1 psi/ft) fracture gradient, and is applying for approval to delta-Pressure the Stanley Pool to a gradient of 15.8 kPa/m (0.7 psi/ft), which is similar to delta-Pressure gradients used in other storage pools in Huron and Lambton Counties. This delta-Pressure gradient equates to a delta-Pressure for the Stanley Pool of 7412 kPa_a (1075 psia) measured at the reservoir face directly below the A2 anhydrite cap rock at a depth of 468.1m (1,536 ft).

The equivalent P/z value (pressure adjusted for the non-ideal nature of natural gas) to the 7412 kPa_a (1075 psia) delta-Pressure for the Stanley Pool is 8867 kPa_a (1286 psia) using the Union Gas system gas analysis (sg: .591, N₂: 2.38%, CO₂: .33%), since this quality of gas will be contained in the pool during storage operations. This P/z value, in combination with the Material Balance Factor for the Stanley Pool, leads to a delta-Pressured Gas-in-Place gas volume of 52.7 10⁶m³ (1,860 MMcf). The cushion gas pressure designed into most gas storage reservoirs in Ontario is 2068 kPa_a (300 psia) at the reservoir face. The remaining gas in the Stanley Pool at this cushion gas pressure will be 12.9 10⁶m³ (456 MMcf). The working gas capacity is the difference between the delta-pressured gas-in-place and the cushion gas-in-place, or 39.8 10⁶m³ (1,404 MMcf).

The original discovery pressure, original gas-in-place, delta pressure, delta pressure gas-in-place, and working gas capacity for the Stanley Pool are summarized below:

Original Discovery Pressure (kPa _a)	Original Gas-in-Place (10 ⁶ m ³)	Delta-Pressure (kPa _a)	Delta-Pressured Gas-in-Place (10 ⁶ m ³)	Bayfield Pool Working Gas (10 ⁶ m ³)
3010	19.28	7,412	52.7	39.8

Original Discovery Pressure (psia)	Original Gas-in-Place (MMcf)	Delta-Pressure (psia)	Delta-Pressured Gas-in-Place (MMcf)	Stanley Pool Working Gas (MMcf)
436.6	684	1075	1,860	1,404

Well Deliverability

The flowrate from a gas well at varying drawdown pressures can be predicted using the “simplified AOF formula”:

$$q = C \cdot (P_r^2 - P_{wf}^2)^n$$

where:

q = flow rate at standard conditions ($10^3 \text{ m}^3/\text{D}$ metric, MMcfd imperial)

P_r = Static reservoir pressure (kPa_a metric, psia Imperial)

P_{wf} = Flowing pressure (kPa_a metric, psia Imperial)

C = constant that describes the position of the stabilized deliverability line ($10^3 \text{ m}^3/\text{D}/(\text{kPa}_a^2)^n$ metric, MMcfd/(psia²)ⁿ Imperial)

n = an exponent that describes the slope of the deliverability line, and varies between 0.5 and 1

For most gas wells, the n factor is equal to or very close to 1. The AOF plot for a well is a plot of pressure squared on the “y” axis versus gas flow rate plotted on the “x” axis, plotted on log-log scales. The deliverability plot for a well is simply a plot of pressure on the “y” axis versus gas flow rate on the “x” axis plotted on coordinate scales. An AOF plot or Deliverability plot can be calculated for a gas well either based on wellhead conditions (the Wellhead AOF plot or Wellhead Deliverability plot) or on downhole conditions (Sandface AOF plot or Sandface Deliverability plot). The Absolute Open Flow (AOF) for a well is simply the gas flow rate equivalent to a flowing pressure, P_{wf} , of 0 kPa_a (0 psia).

The Huron #3 well and Huron #4 well originally flow tested at rates of 0.9 MMcfd and 6.0 MMcfd respectively. A modified isochronal test was performed on the Huron #3 well in September 16, 1983 that resulted in a Wellhead “ n ” value of .881, a Wellhead “ C ” value of $4.48 \times 10^{-5} \text{ MMcfd}/((\text{psia}^2)^n)$, and a Wellhead AOF of 1,850 Mcfd. Assuming an “ n ” value of .881 and using the drill-in flow rate of 6.0 MMcfd, the “ C ” value for the Huron #4 well can be calculated as well. This surface flow test data can be converted to equivalent Sandface data, which more closely represents the flow potential of each well (by excluding any affects of wellbore tubular sizes, etc.). Both the Wellhead and Sandface AOF, n , and C data resulting from the Huron #3 test and assumptions for Huron #4 are summarized below. Wellhead and Sandface Deliverability plots for both wells are included in Schedule 5, appended to this report.

1

	Sandface n	Sandface C ($10^3 \text{ m}^3/\text{D}/(\text{kPa}_a^2)^n$)	Wellhead n	Wellhead C ($10^3 \text{ m}^3/\text{D}/(\text{kPa}_a^2)^n$)
Huron #3 well	.884	3.69×10^{-5}	.881	4.19×10^{-5}
Huron #4 well	.902	9.26×10^{-5}	.881	1.36×10^{-4}
Average	.893	6.47×10^{-5}	.881	8.90×10^{-5}

2

	Sandface n	Sandface C (MMcfd/(psia ²) ⁿ)	Wellhead n	Wellhead C (MMcfd/(psia ²) ⁿ)
Huron #3 well	.884	3.96×10^{-5}	.881	4.48×10^{-5}
Huron #4 well	.902	1.07×10^{-4}	.881	1.45×10^{-4}
Average	.893	7.33×10^{-5}	.881	9.49×10^{-5}

3

4 The average “C” and “n” values from the Huron #3 and Huron #4 wells can be used to estimate
5 the AOF’s for an “average” vertical Injection/Withdrawal (“I/W”) well at all pressures up to the
6 delta-Pressure. Based on the geological evidence, the gross gas pay in the Huron #3 and Huron
7 #4 wells are 82 m (269 ft) and 75 m (246 ft) respectively, with the average gross gas pay being
8 78.5 m (258 ft). By drilling either horizontally or at a high angle through the Guelph zone, the
9 effective gross gas pay contacted by a well can be greatly increased. This increased gross gas
10 pay will be closely related to an increase in the “C” value for that well. Besides vertical wells, 2
11 other potential I/W well configurations and deliverabilities have been estimated. In the
12 deviated well case, a wellbore angle of 60° from vertical is assumed while in the reef. This well
13 configuration would potentially increase the gross gas pay by 100%, and would lead to a
14 Sandface “C” value of $1.31 \times 10^{-4} 10^3 \text{ m}^3/\text{D}/(\text{kPa}_a^2)^n$ [$1.47 \times 10^{-4} \text{ MMcfd}/(\text{psia}^2)^n$]. By drilling a
15 horizontal well through the porous part of the Guelph zone, the gross gas pay contacted is
16 theoretically only limited by the length of the horizontal section within the reef. For the analysis
17 here, I have assumed 590 m (1930 ft) of porous reef can be contacted by a multi-lateral
18 horizontal well, resulting in a Sandface “C” value of $4.95 \times 10^{-4} 10^3 \text{ m}^3/\text{D}/(\text{kPa}_a^2)^n$ [5.53×10^{-4}
19 MMcfd/(psia²)ⁿ]. The resulting Sandface and Wellhead AOF’s for these three well configurations
20 are tabulated below. All AOF values are with the reservoir pressured to the delta-Pressure value
21 of 7412 kPaa (1075 psia) and assuming 178mm (7”) casing is installed:

	Sandface			Wellhead		
	C ($10^3 \text{ m}^3/\text{D}/(\text{kPa}_a^2)^n$)	N	AOF ($10^3 \text{ m}^3/\text{D}$)	C ($10^3 \text{ m}^3/\text{D}/(\text{kPa}_a^2)^n$)	N	AOF ($10^3 \text{ m}^3/\text{D}$)
Vertical I/W well	6.57×10^{-5}	.893	536	8.16×10^{-5}	.885	534
Deviated IW well	1.31×10^{-4}	.893	1075	1.97×10^{-4}	.874	1052
Horizontal I/W well	4.95×10^{-4}	.893	4043	3.29×10^{-3}	.779	3283

22

	Sandface			Wellhead		
	C (MMcfd/(psia ²) ⁿ)	N	AOF (MMcfd)	C (MMcfd/(psia ²) ⁿ)	N	AOF (MMcfd)
Vertical I/W well	7.33×10^{-5}	.893	19.0	8.83×10^{-5}	.885	18.9
Deviated IW well	1.47×10^{-4}	.893	38.1	2.04×10^{-4}	.874	37.3
Horizontal I/W well	5.53×10^{-4}	.893	143	2.37×10^{-3}	.779	117

1

2 Deliverability plots for all of these potential well configurations are appended in Schedule 6 to
3 this report. These deliverability plots show both the Sandface and Wellhead Deliverability
4 curves, assuming 178mm (7") casing is installed in each I/W well.

5 These potential well configurations, in conjunction with the delta Pressured Gas-in-Place and
6 working gas volumes were input into a pipeline and wellbore simulation program to estimate
7 the number of potential wellbores required to effectively cycle the working gas volume of the
8 Stanley Pool over a 121 day winter withdrawal period with drawdowns limited to 20%. The 121
9 day winter withdrawal period assumes withdrawals start December 1st and end on March 31st.
10 Based on this pipeline simulation, the Stanley Pool will require a total Sandface "C" value of all
11 producing wells of $2.34 \times 10^{-4} \text{ } 10^3 \text{ m}^3/\text{D}/(\text{kPa}_a^2)^n$ [$2.61 \times 10^{-4} \text{ MMcfd}/(\text{psia}^2)^n$]. Based on this
12 required total pool "C" value, the pool would require up to 4 vertical wells, or 2 deviated wells,
13 or 1 multilateral horizontal well.

14 The Tribute Resources et al #25 well which was drilled to collect the A2 Anhydrite cap-rock core
15 was cased with 178mm (7") casing set in the cap Silurian A2 Anhydrite. Drilling continued for
16 107m (351 ft) into the A1/Guelph pinnacle, with a mostly salt plugged Guelph reef contacted.
17 16m (52 ft) of porous reef were contacted just above the total depth of the well. The Tribute
18 Resources et al #25, Stanley 3-7-XI wellbore will be plugged back and a horizontal drainhole will
19 be drilled from below the 178mm casing seat to contact better permeability toward the
20 windward side of the reef. This kick out of the Tribute Resources et al #25 wellbore will be
21 licensed as Tribute Resources et al #25 (Horiz. #1), Stanley 3-7-XI. In addition to this horizontal
22 well, the Operator will drill Bayfield Resources et al #3 (Horiz. #1), Stanley 3-7-XI as a new
23 horizontal well to contact the north-west windward side of the reef. Bayfield Resources et al #3
24 (Horiz. #1-Lat. #1), Stanley 3-7-XI will be a lateral drilled from the initial horizontal section to
25 contact the reef porosity to the north side of the reef. Both of the Huron #3, Stanley 4-7-XI and
26 Huron #4, Stanley 3-7-XI wellbore tubulars were in poor condition, necessitating plugging both
27 wells. Bayfield Resources et al #4, Stanley 3-7-XI will be drilled as an Observation well in the
28 pool.

29 An accurate measure of the deliverability potential of the Tribute Resources et al #25 (Horiz.
30 #1), Stanley 3-7-XI, Bayfield Resources et al #3 (Horiz. #1), Stanley 3-7-XI and Bayfield Resources

1 et al #3 (Horiz. #1-Lat. #1), Stanley 3-7-XI wells will only be known once the Stanley Pool is
2 developed as a storage pool. The potential well requirements discussed here should be viewed
3 as an estimated well count requirement only.

4

Stanley 4-7-XI Pool Reservoir Engineering Report

Schedule 1 – Production History

Ontario Energy Board

EB-2009-0340

20/08/2009

Tab C, Section 1
Jim McIntosh
Page 13 of 75

PRODUCTION HISTORY MONTHLY RAW TOTALS

Stanley 4-7-XI Pool: Huron #3: Stanley 4-7-XI, Huron #4: Stanley 3-7-XI

MONTH	DAYS ON	HRS ON	MTHLY PROD'N			DLY GAS PROD'N (Mm3/D)	(Mcf/d)	O/G Ratio (m3/Mm3)	W/G Ratio (m3/Mm3)	CUM PROD'N			COMMENTS
			Gas (Mm3)	Oil/Cond (m3)	Water (m3)					Gas (MMm3)	Oil/Cond (Mm3)	Water (Mm3)	
jan.1985		0	744	228.2		7.36	259.9	0.00	0.00	0.23	0.00	0.00	
feb.1985			672	228.2		8.15	287.7	0.00	0.00	0.46	0.00	0.00	
mar.1985			744	228.2		7.36	259.9	0.00	0.00	0.68	0.00	0.00	
apr.1985			720	228.2		7.61	268.5	0.00	0.00	0.91	0.00	0.00	Ap 14 24 hr SI: 3: 1896kPa, 4: 1896kPa
may.1985			744	228.2		7.36	259.9	0.00	0.00	1.14	0.00	0.00	
jun.1985			720	228.2		7.61	268.5	0.00	0.00	1.37	0.00	0.00	
jul.1985			744	228.2		7.36	259.9	0.00	0.00	1.60	0.00	0.00	
aug.1985			744	228.2		7.36	259.9	0.00	0.00	1.83	0.00	0.00	
sep.1985			720	228.2		7.61	268.5	0.00	0.00	2.05	0.00	0.00	
oct.1985			744	228.2		7.36	259.9	0.00	0.00	2.28	0.00	0.00	
nov.1985			720	228.2		7.61	268.5	0.00	0.00	2.51	0.00	0.00	
dec.1985			744	228.2		7.36	259.9	0.00	0.00	2.74	0.00	0.00	
jan.1986	350		744	602.1		19.42	685.6	0.00	0.00	3.34	0.00	0.00	
feb.1986			672	602.1		21.50	759.1	0.00	0.00	3.94	0.00	0.00	
mar.1986			744	602.1		19.42	685.6	0.00	0.00	4.54	0.00	0.00	
apr.1986			720	602.1		20.07	708.4	0.00	0.00	5.15	0.00	0.00	
may.1986			744	602.1		19.42	685.6	0.00	0.00	5.75	0.00	0.00	
jun.1986			720	602.1		20.07	708.4	0.00	0.00	6.35	0.00	0.00	
jul.1986			744	602.1		19.42	685.6	0.00	0.00	6.95	0.00	0.00	
aug.1986			744	602.1		19.42	685.6	0.00	0.00	7.56	0.00	0.00	
sep.1986			720	602.1		20.07	708.4	0.00	0.00	8.16	0.00	0.00	
oct.1986			744	602.1		19.42	685.6	0.00	0.00	8.76	0.00	0.00	
nov.1986			720	602.1		20.07	708.4	0.00	0.00	9.36	0.00	0.00	Nov 3 168 hr SI: 3: 1344kPa, 4: 1323kPa
dec.1986			744	602.1		19.42	685.6	0.00	0.00	9.96	0.00	0.00	
jan.1987	350		744	479.0		15.45	545.5	0.00	0.00	10.44	0.00	0.00	
feb.1987			672	479.0		17.11	603.9	0.00	0.00	10.92	0.00	0.00	
mar.1987			744	479.0		15.45	545.5	0.00	0.00	11.40	0.00	0.00	
apr.1987			720	479.0		15.97	563.7	0.00	0.00	11.88	0.00	0.00	
may.1987			744	479.0		15.45	545.5	0.00	0.00	12.36	0.00	0.00	
jun.1987			720	479.0		15.97	563.7	0.00	0.00	12.84	0.00	0.00	
jul.1987			744	479.0		15.45	545.5	0.00	0.00	13.32	0.00	0.00	
aug.1987			744	479.0		15.45	545.5	0.00	0.00	13.80	0.00	0.00	
sep.1987			720	479.0		15.97	563.7	0.00	0.00	14.27	0.00	0.00	
oct.1987			744	479.0		15.45	545.5	0.00	0.00	14.75	0.00	0.00	
nov.1987			720	479.0		15.97	563.7	0.00	0.00	15.23	0.00	0.00	
dec.1987			744	479.0		15.45	545.5	0.00	0.00	15.71	0.00	0.00	Dec 15 168 hr SI: 3: 735kPa, 4: 720kPa
jan.1988	0		744	170.6		5.50	194.3	0.00	0.00	15.88	0.00	0.00	Nov 4 336 hr SI: 3: 138kPa, 4: 138kPa
feb.1988			696	170.6		5.88	207.7	0.00	0.00	16.05	0.00	0.00	
mar.1988			744	170.6		5.50	194.3	0.00	0.00	16.22	0.00	0.00	
apr.1988			720	170.6		5.69	200.8	0.00	0.00	16.39	0.00	0.00	
may.1988			744	170.6		5.50	194.3	0.00	0.00	16.56	0.00	0.00	
jun.1988			720	170.6		5.69	200.8	0.00	0.00	16.74	0.00	0.00	
jul.1988			744	170.6		5.50	194.3	0.00	0.00	16.91	0.00	0.00	
aug.1988			744	170.6		5.50	194.3	0.00	0.00	17.08	0.00	0.00	
sep.1988			720	170.6		5.69	200.8	0.00	0.00	17.25	0.00	0.00	
oct.1988			744	170.6		5.50	194.3	0.00	0.00	17.42	0.00	0.00	
nov.1988			720	170.6		5.69	200.8	0.00	0.00	17.59	0.00	0.00	Nov 4 336 hr SI: 3: 138kPa, 4: 138kPa
dec.1988			744	170.6		5.50	194.3	0.00	0.00	17.76	0.00	0.00	
jan.1989	0		744	86.5		2.79	98.5	0.00	0.00	17.85	0.00	0.00	
feb.1989			672	86.5		3.09	109.0	0.00	0.00	17.93	0.00	0.00	
mar.1989			744	86.5		2.79	98.5	0.00	0.00	18.02	0.00	0.00	
apr.1989			720	86.5		2.88	101.7	0.00	0.00	18.10	0.00	0.00	
may.1989			744	86.5		2.79	98.5	0.00	0.00	18.19	0.00	0.00	
jun.1989			720	86.5		2.88	101.7	0.00	0.00	18.28	0.00	0.00	
jul.1989			744	86.5		2.79	98.5	0.00	0.00	18.36	0.00	0.00	
aug.1989			744	86.5		2.79	98.5	0.00	0.00	18.45	0.00	0.00	
sep.1989			720	86.5		2.88	101.7	0.00	0.00	18.54	0.00	0.00	
oct.1989			744	86.5		2.79	98.5	0.00	0.00	18.62	0.00	0.00	
nov.1989			720	86.5		2.88	101.7	0.00	0.00	18.71	0.00	0.00	
dec.1989			744	86.5		2.79	98.5	0.00	0.00	18.80	0.00	0.00	
jan.1990	0		744	56.9		1.84	64.8	0.00	0.00	18.85	0.00	0.00	
feb.1990			672	56.9		2.03	71.7	0.00	0.00	18.91	0.00	0.00	
mar.1990			744	56.9		1.84	64.8	0.00	0.00	18.97	0.00	0.00	
apr.1990			720	56.9		1.90	67.0	0.00	0.00	19.02	0.00	0.00	
may.1990			744	56.9		1.84	64.8	0.00	0.00	19.08	0.00	0.00	
jun.1990			720	56.9		1.90	67.0	0.00	0.00	19.14	0.00	0.00	
jul.1990			744	56.9		1.84	64.8	0.00	0.00	19.19	0.00	0.00	
aug.1990			744	56.9		1.84	64.8	0.00	0.00	19.25	0.00	0.00	
sep.1990			720	56.9		1.90	67.0	0.00	0.00	19.31	0.00	0.00	
oct.1990			744	56.9		1.84	64.8	0.00	0.00	19.37	0.00	0.00	
nov.1990			720	56.9		1.90	67.0	0.00	0.00	19.42	0.00	0.00	
dec.1990			744	56.9		1.84	64.8	0.00	0.00	19.48	0.00	0.00	
jan.1991	0		744	15.8		0.51	18.0	0.00	0.00	19.50	0.00	0.00	
feb.1991			672	15.8		0.57	20.0	0.00	0.00	19.51	0.00	0.00	
mar.1991			744	15.8		0.51	18.0	0.00	0.00	19.53	0.00	0.00	
apr.1991			720	15.8		0.53	18.6	0.00	0.00	19.54	0.00	0.00	
may.1991			744	15.8		0.51	18.0	0.00	0.00	19.56	0.00	0.00	
jun.1991			720	15.8		0.53	18.6	0.00	0.00	19.57	0.00	0.00	

Ontario Energy Board

EB-2009-0340

20/08/2009

Tab C, Section 1
Jim McIntosh
Page 14 of 75

PRODUCTION HISTORY MONTHLY RAW TOTALS

Stanley 4-7-XI Pool: Huron #3: Stanley 4-7-XI, Huron #4: Stanley 3-7-XI

MONTH	DAYS ON	HRS ON	MTHLY PROD'N			DLY GAS PROD'N (Mm3/D)	(Mcf/d)	O/G Ratio (m3/Mm3)	W/G Ratio (m3/Mm3)	CUM PROD'N			COMMENTS
			Gas (Mm3)	Oil/Cond (m3)	Water (m3)					Gas (MMm3)	Oil/Cond (Mm3)	Water (Mm3)	
jul.1991		744	15.8			0.51	18.0	0.00	0.00	19.59	0.00	0.00	
aug.1991		744	15.8			0.51	18.0	0.00	0.00	19.61	0.00	0.00	
sep.1991		720	15.8			0.53	18.6	0.00	0.00	19.62	0.00	0.00	
oct.1991		744	15.8			0.51	18.0	0.00	0.00	19.64	0.00	0.00	
nov.1991		720	15.8			0.53	18.6	0.00	0.00	19.65	0.00	0.00	
dec.1991		744	15.8			0.51	18.0	0.00	0.00	19.67	0.00	0.00	
jan.1992	0									19.50	0.00	0.00	
feb.1992	0									19.50	0.00	0.00	
mar.1992	0									19.50	0.00	0.00	
apr.1992	0									19.50	0.00	0.00	
may.1992	0									19.50	0.00	0.00	
jun.1992	0									19.50	0.00	0.00	
jul.1992	0									19.50	0.00	0.00	
aug.1992	0									19.50	0.00	0.00	
sep.1992	0									19.50	0.00	0.00	
oct.1992	0									19.50	0.00	0.00	
nov.1992	0									19.50	0.00	0.00	
dec.1992	31	744	40.90			1.32	46.6	0.00	0.00	19.54	0.00	0.00	
jan.1993	31	744	38.00			1.23	43.3	0.00	0.00	19.57	0.00	0.00	
feb.1993	28	672	36.20			1.29	45.6	0.00	0.00	19.61	0.00	0.00	
mar.1993	31	744	38.40			1.24	43.7	0.00	0.00	19.65	0.00	0.00	
apr.1993	30	720	36.60			1.22	43.1	0.00	0.00	19.69	0.00	0.00	
may.1993	31	744	34.20			1.10	38.9	0.00	0.00	19.72	0.00	0.00	
jun.1993	30	720	28.60			0.95	33.7	0.00	0.00	19.75	0.00	0.00	
jul.1993	31	744	27.80			0.90	31.7	0.00	0.00	19.78	0.00	0.00	
aug.1993	31	744	25.40			0.82	28.9	0.00	0.00	19.80	0.00	0.00	
sep.1993	30	720	25.60			0.85	30.1	0.00	0.00	19.83	0.00	0.00	
oct.1993	31	744	23.80			0.77	27.1	0.00	0.00	19.85	0.00	0.00	
nov.1993	30	720	22.20			0.74	26.1	0.00	0.00	19.87	0.00	0.00	
dec.1993	31	744	23.80			0.77	27.1	0.00	0.00	19.90	0.00	0.00	
jan.1994	31	744	15.80			0.51	18.0	0.00	0.00	19.91	0.00	0.00	
feb.1994	28	672	14.60			0.52	18.4	0.00	0.00	19.93	0.00	0.00	
mar.1994	31	744	27.90			0.90	31.8	0.00	0.00	19.96	0.00	0.00	
apr.1994	30	720	15.20			0.51	17.9	0.00	0.00	19.97	0.00	0.00	
may.1994	31	744	14.70			0.47	16.7	0.00	0.00	19.98	0.00	0.00	
jun.1994	30	720	16.90			0.56	19.9	0.00	0.00	20.00	0.00	0.00	
jul.1994	31	744	15.60			0.50	17.8	0.00	0.00	20.02	0.00	0.00	
aug.1994	31	744	14.70			0.47	16.7	0.00	0.00	20.03	0.00	0.00	
sep.1994	30	720	11.90			0.40	14.0	0.00	0.00	20.04	0.00	0.00	
oct.1994	0									20.04	0.00	0.00	
nov.1994	0									20.04	0.00	0.00	
dec.1994	0									20.04	0.00	0.00	
jan.1995	0									20.04	0.00	0.00	
feb.1995	0									20.04	0.00	0.00	
mar.1995	0									20.04	0.00	0.00	
apr.1995	0									20.04	0.00	0.00	
may.1995	0									20.04	0.00	0.00	
jun.1995	0									20.04	0.00	0.00	
jul.1995	0									20.04	0.00	0.00	
aug.1995	0									20.04	0.00	0.00	
sep.1995	0									20.04	0.00	0.00	
oct.1995	0									20.04	0.00	0.00	
nov.1995	0									20.04	0.00	0.00	
dec.1995	0									20.04	0.00	0.00	Dec 7 SI 3: 179kPa, 4: 197kPa
jan.1996	0									20.04	0.00	0.00	
feb.1996	0									20.04	0.00	0.00	
mar.1996	0									20.04	0.00	0.00	
apr.1996	0									20.04	0.00	0.00	
may.1996	0									20.04	0.00	0.00	
jun.1996	0									20.04	0.00	0.00	
jul.1996	0									20.04	0.00	0.00	
aug.1996	0									20.04	0.00	0.00	
sep.1996	0									20.04	0.00	0.00	
oct.1996	0									20.04	0.00	0.00	
nov.1996	0									20.04	0.00	0.00	
dec.1996	0									20.04	0.00	0.00	
jan.1997	0									20.04	0.00	0.00	
feb.1997	0									20.04	0.00	0.00	
mar.1997	0									20.04	0.00	0.00	
apr.1997	0									20.04	0.00	0.00	
may.1997	0									20.04	0.00	0.00	
jun.1997	0									20.04	0.00	0.00	
jul.1997	0									20.04	0.00	0.00	
aug.1997	0									20.04	0.00	0.00	
sep.1997	0									20.04	0.00	0.00	
oct.1997	0									20.04	0.00	0.00	
nov.1997	0									20.04	0.00	0.00	
dec.1997	0									20.04	0.00	0.00	
jan.1998	0									20.04	0.00	0.00	Bought from PPC Jan/98

Ontario Energy Board

EB-2009-0340

20/08/2009

Tab C, Section 1
Jim McIntosh
Page 15 of 75

PRODUCTION HISTORY MONTHLY RAW TOTALS

Stanley 4-7-XI Pool: Huron #3: Stanley 4-7-XI, Huron #4: Stanley 3-7-XI

MONTH	DAYS ON	HRS ON	MTHLY PROD'N			DLY GAS PROD'N (Mm3/D)	(Mcf/d)	O/G Ratio (m3/Mm3)	W/G Ratio (m3/Mm3)	CUM PROD'N			COMMENTS
			Gas (Mm3)	Oil/Cond (m3)	Water (m3)					Gas (MMm3)	Oil/Cond (Mm3)	Water (Mm3)	
feb.1998	0									20.04	0.00	0.00	
mar.1998	0									20.04	0.00	0.00	Ap 6 SI 3: 193kPa, 4: 193kPa
apr.1998	0									20.04	0.00	0.00	
may.1998	0									20.04	0.00	0.00	
jun.1998	0									20.04	0.00	0.00	
jul.1998	0									20.04	0.00	0.00	
aug.1998	0									20.04	0.00	0.00	
sep.1998	0	720	25.25			0.84	29.7	0.00	0.00	20.07	0.00	0.00	
oct.1998	0	744	63.19			2.04	72.0	0.00	0.00	20.13	0.00	0.00	
nov.1998	0	720	60.26			2.01	70.9	0.00	0.00	20.19	0.00	0.00	
dec.1998	0	744	75.55			2.44	86.0	0.00	0.00	20.27	0.00	0.00	
jan.1999	0	744	45.61			1.47	51.9	0.00	0.00	20.31	0.00	0.00	
feb.1999	0	672	52.45			1.87	66.1	0.00	0.00	20.37	0.00	0.00	
mar.1999	0	744	65.60			2.12	74.7	0.00	0.00	20.43	0.00	0.00	
apr.1999	0	720	38.79			1.29	45.6	0.00	0.00	20.47	0.00	0.00	
may.1999	0	744	10.70			0.35	12.2	0.00	0.00	20.48	0.00	0.00	
jun.1999	0	720	33.14			1.10	39.0	0.00	0.00	20.51	0.00	0.00	
jul.1999	0	744	31.27			1.01	35.6	0.00	0.00	20.55	0.00	0.00	
aug.1999	0	744	46.70			1.51	53.2	0.00	0.00	20.59	0.00	0.00	
sep.1999	0	720	44.77			1.49	52.7	0.00	0.00	20.64	0.00	0.00	
oct.1999	0	744	41.19			1.33	46.9	0.00	0.00	20.68	0.00	0.00	
nov.1999	0	720	12.24			0.41	14.4	0.00	0.00	20.69	0.00	0.00	3: 69kPa, 4: 193kPa, Nov 20/99
dec.1999	0	0	-							20.69	0.00	0.00	
jan.2000	0	0	-							20.69	0.00	0.00	
feb.2000	0	696	2.03			0.07	2.5	0.00	0.00	20.69	0.00	0.00	
mar.2000	0	744	4.44			0.14	5.1	0.00	0.00	20.70	0.00	0.00	
apr.2000	0	720	1.41			0.05	1.7	0.00	0.00	20.70	0.00	0.00	3: 69kPa, 4: 193kPa, Apr 14/00
may.2000	0	744	5.03			0.16	5.7	0.00	0.00	20.70	0.00	0.00	
jun.2000	0	720	13.98			0.47	16.5	0.00	0.00	20.72	0.00	0.00	
jul.2000	0	744	17.79			0.57	20.3	0.00	0.00	20.74	0.00	0.00	
aug.2000	0	744	2.20			0.07	2.5	0.00	0.00	20.74	0.00	0.00	
sep.2000	0	720	9.57			0.32	11.3	0.00	0.00	20.75	0.00	0.00	
oct.2000	0	744	17.97			0.58	20.5	0.00	0.00	20.77	0.00	0.00	
nov.2000	0	720	12.06			0.40	14.2	0.00	0.00	20.78	0.00	0.00	
dec.2000	0	744	13.16			0.42	15.0	0.00	0.00	20.79	0.00	0.00	
jan.2001	0	744	10.98			0.35	12.5	0.00	0.00	20.80	0.00	0.00	
feb.2001	0	672	12.81			0.46	16.2	0.00	0.00	20.81	0.00	0.00	
mar.2001	0	744	10.79			0.35	12.3	0.00	0.00	20.82	0.00	0.00	
apr.2001	0	720	3.68			0.12	4.3	0.00	0.00	20.83	0.00	0.00	
may.2001	0	744	0.48			0.02	0.5	0.00	0.00	20.83	0.00	0.00	
jun.2001	0	720	1.55			0.05	1.8	0.00	0.00	20.83	0.00	0.00	
jul.2001	0	744	0.18			0.01	0.2	0.00	0.00	20.83	0.00	0.00	
aug.2001	0		-							20.83	0.00	0.00	
sep.2001	0		-							20.83	0.00	0.00	
oct.2001	0		-							20.83	0.00	0.00	
nov.2001	0		-							20.83	0.00	0.00	
dec.2001	0		-							20.83	0.00	0.00	3: 69kPa, 4: 69kPa, Dec 10/01
jan.2002	0		-							20.83	0.00	0.00	
feb.2002	0		-							20.83	0.00	0.00	
mar.2002	0		-							20.83	0.00	0.00	
apr.2002	0		-							20.83	0.00	0.00	
may.2002	0		-							20.83	0.00	0.00	
jun.2002	0		-							20.83	0.00	0.00	
jul.2002	0		-							20.83	0.00	0.00	
aug.2002	0		-							20.83	0.00	0.00	
sep.2002	0		-							20.83	0.00	0.00	
oct.2002	0		-							20.83	0.00	0.00	3: 69kPa, 4: 69kPa, Oct 31/02
nov.2002	0		-							20.83	0.00	0.00	
dec.2002	0		-							20.83	0.00	0.00	
jan.2003	0		-							20.83	0.00	0.00	
feb.2003	0		-							20.83	0.00	0.00	
mar.2003	0		-							20.83	0.00	0.00	
apr.2003	0		-							20.83	0.00	0.00	
may.2003	0		-							20.83	0.00	0.00	
jun.2003	0		-							20.83	0.00	0.00	
jul.2003	0		-							20.83	0.00	0.00	
aug.2003	0		-							20.83	0.00	0.00	
sep.2003	0		-							20.83	0.00	0.00	3: 69kPa, 4: 69kPa, Sep 26/03
oct.2003	0		-							20.83	0.00	0.00	
nov.2003	0		-							20.83	0.00	0.00	
dec.2003	0		-							20.83	0.00	0.00	
jan.2004	0		-							20.83	0.00	0.00	
feb.2004	0		-							20.83	0.00	0.00	
mar.2004	0		-							20.83	0.00	0.00	
apr.2004	0		-							20.83	0.00	0.00	
may.2004	0		-							20.83	0.00	0.00	
jun.2004	0		-							20.83	0.00	0.00	
jul.2004	0		-							20.83	0.00	0.00	3: 69kPa, 4: 69kPa, Jul 8/04
aug.2004	0		-							20.83	0.00	0.00	

Ontario Energy Board

EB-2009-0340

20/08/2009

Tab C, Section 1
Jim McIntosh
Page 16 of 75

PRODUCTION HISTORY MONTHLY RAW TOTALS

Stanley 4-7-XI Pool: Huron #3: Stanley 4-7-XI, Huron #4: Stanley 3-7-XI

MONTH	DAYS ON	HRS ON	MTHLY PROD'N			DLY GAS PROD'N (Mm3/D)	(Mcf/d)	O/G Ratio (m3/Mm3)	W/G Ratio (m3/Mm3)	CUM PROD'N			COMMENTS
			Gas (Mm3)	Oil/Cond (m3)	Water (m3)					Gas (MMm3)	Oil/Cond (Mm3)	Water (Mm3)	
sep.2004	0		-							20.83	0.00	0.00	
oct.2004	0		-							20.83	0.00	0.00	
nov.2004	0		-							20.83	0.00	0.00	
dec.2004	0		-							20.83	0.00	0.00	
jan.2005	0		-							20.83	0.00	0.00	
feb.2005	0		-							20.83	0.00	0.00	
mar.2005	0		-							20.83	0.00	0.00	
apr.2005	0		-							20.83	0.00	0.00	3: 69kPa, 4: 69kPa, Apr 15/05
may.2005	0		-							20.83	0.00	0.00	
jun.2005	0		-							20.83	0.00	0.00	
jul.2005	0		-							20.83	0.00	0.00	
aug.2005	0		-							20.83	0.00	0.00	
sep.2005	0		-							20.83	0.00	0.00	
oct.2005	0		-							20.83	0.00	0.00	
nov.2005	0		-							20.83	0.00	0.00	
dec.2005	0		-							20.83	0.00	0.00	
jan.2006	0		-							20.83	0.00	0.00	
feb.2006	0		-							20.83	0.00	0.00	
mar.2006	0		-							20.83	0.00	0.00	
apr.2006	0		-							20.83	0.00	0.00	
may.2006	0		-							20.83	0.00	0.00	
jun.2006	0		-							20.83	0.00	0.00	
jul.2006	0		-							20.83	0.00	0.00	
aug.2006	0		-							20.83	0.00	0.00	
sep.2006	0		-							20.83	0.00	0.00	
oct.2006	0		-							20.83	0.00	0.00	
nov.2006	0		-							20.83	0.00	0.00	
dec.2006	0		-							20.83	0.00	0.00	
jan.2007	0		-							20.83	0.00	0.00	
feb.2007	0		-							20.83	0.00	0.00	
mar.2007	0		-							20.83	0.00	0.00	
apr.2007	0		-							20.83	0.00	0.00	
may.2007	0		-							20.83	0.00	0.00	
jun.2007	0		-							20.83	0.00	0.00	
jul.2007	0		-							20.83	0.00	0.00	
aug.2007	0		-							20.83	0.00	0.00	
sep.2007	0		-							20.83	0.00	0.00	
oct.2007	0		-							20.83	0.00	0.00	
nov.2007	0		-							20.83	0.00	0.00	
dec.2007	0		-							20.83	0.00	0.00	
jan.2008	0		-							20.83	0.00	0.00	
feb.2008	0		-							20.83	0.00	0.00	
mar.2008	0		-							20.83	0.00	0.00	
apr.2008	0		-							20.83	0.00	0.00	
may.2008	0		-							20.83	0.00	0.00	
jun.2008	0		-							20.83	0.00	0.00	
jul.2008	0		-							20.83	0.00	0.00	
aug.2008	0		-							20.83	0.00	0.00	
sep.2008	0		-							20.83	0.00	0.00	
oct.2008	0		-							20.83	0.00	0.00	
nov.2008	0		-							20.83	0.00	0.00	
dec.2008	0		-							20.83	0.00	0.00	D23 - J13: Downhole press T25: 270.6kPaa

Stanley
Stanley



Stanley 4-7-XI Pool Reservoir Engineering Report

Schedule 2 – Pressure History

Stanley Reef Pressure History Data

Basic Well Data:

Huron #3: Stanley 4-7-XI

Spudded: 03-Jul-82
Rig Rel: 30-Aug-82
RF elev: 270.5 m
Gd elev: 270 m
TD: 615 m RF
Guelph: 502.7 mRF A1 top: 477.3 mRF
Rochester: 609.4 mRF
Prod'n csg: 178mm 29.8kg at 291.5mRF, cemented.
114mm csg run to 615m and cemented. Cement top logged at 69m.
Gas shows: 477 mRF (- 206.5 mss) Show at top A1 Carb
530 - 555 mRF(259.5 - 284.5 mss) 25.5 10³m³/D (900 Mcfd)
No water shows reported on form 7
Datum Depth: 550.5 mRF (280 mss)
Indicated perfs: 496 - 527m, 564.7 - 565.9m
Treatments: Indicated foamed acid job w packer not holding
Final results: Flow 25.5 10³m³/D (900 Mcfd)
Pressure N/A
Salt plugging above 495m, 9% por: 495 - 525m, 6 to 9% por w/minor salt plugging: 525 - 550m, 12 to 15% good por 551-557m, partial salt plugging 557 - 570m, partially salt pugged and tight below 570m

Huron #4: Stanley 3-7-XI

Notes:

Spud: 08-Aug-83 UGD stuck at 173m in lost circ zone. Ran 10 3/4" csg as hold back string to
Rig Rel: 17-Aug-83 128m, washed over fish w/8 5/8" csg, then pulled 8 5/8" & 10 3/4" csg. 7"
KB elev: 264.5 m csg run to 289.66mKB, c/w 150 sxs w/ no fl rtns. Bad clr in 7" csg somewhere.
Gd elev: 262.49 m 4 1/2" csg run w/ cable tool rig to 498m, c/w 250 sxs, no cmt rtns. While
TD: 576 m KB pulling tbg in 2005, rig commented on tbg catching on something.
Guelph: 501.7 m KB A1 top: 470.2 mRF
Rochester: NP
Prod'n csg: 114mm 14.1kg at 497.6mKB c/w 250 scs cement
Gas shows: 497 - 576 mKB (232.5 - 311.5 m ss: 169.4 10³m³/D (5.98 MMcfD)
No water shows reported on form 7
Datum Depth: 544.5 mRF (280 mss)
Treatments: indicated foamed acid frac
Final results: Flow 169.4 10³m³/D (5.98 MMcfD)
Pressure 2776 kPa (403 psi)
Salt plugging to 495m, 12% por: 495 - 499m, 6 - 9% por: 502 - 521m, tighter w/minor salt plugging below 521m.

Imperial 497: Stanley 7-XI

Spud: 10-Dec-54
Rig Rel: 27-Jan-55
RF elev: 900 ft
Gd elev: 898 ft
TD: 2044 ft RF
Guelph: 1944 ft RF A1: 1815 ft RF
Rochester: Trace (553 mRF)
Prod'n csg: None
Gas/oil shows: None
Water shows: 285 ft(86.9 m)
91 ft(27.7 m)
Final results: DH P&A

Bluewater Stanley 7-XII

Spud: 24-May-57
Rig Rel: 05-Jul-57
RF elev: 816 ft
Gd elev: 814 ft
TD: 1989 ft RF
Guelph: 1893 ft 1748 ftRF
Rochester: 1956 ft 532.8 mRF)
Prod'n csg: None
Gas/oil shows: None
Water shows: 249 ft(75.9 m)
65 ft(19.8 m)
Final results: DH P&A

Tribute 25: Stanley 3-7-XI

Spud: 05-Jun-08
Rig Rel: 22-Oct-08
RF elev: 264.7 m
Gd elev: 263.4 m
TD: 583 m RF
Guelph: 494 m KB A1 top: 481.9 mRF
Rochester: NP
Prod'n csg: 178mm 29.8kg at 482.2mRF c/w 11.5t CI G, 1m³ good cmt returns
Gas shows: 536 - 581 mKB (271.3 - 316.3 mss
No water shows reported on form 7
Datum Depth: 544.7 mRF (280 mss)
Salt plugging to 536m, 3% por: 536 - 547m, 3 - 8% por: 547 - 565m, 7 - 15% por: 565 - 581m.
Final results: Cased as either I/W or obs well for storage pool.

Pressure History (Note: using pool datum of 280 mss, Pa - Pg = 99 kPa
(14.4 psi)

Gas Properties: sg = .66, N₂ = 6.33%, CO₂ = .03%, T_{surf} = 60°F, T_{BH} = 60°F

Date	Well	Type of Press	SI time (hrs)	Press (psig)	Depth (ft RF)	Datum Pressure (psia)	(kPaa)
17-Aug-83	Huron #4	Form 7 ISIP		2776 kPa	Surf	436.6	3010
16-Sep-83	Huron #3	ISIP prior to test		402.2 psig	Surf	436.4	3009
14-Apr-85	Huron #3	24 hr SI		1896 kPa	Surf	302.8	2087
14-Apr-85	Huron #4	24 hr SI		1896 kPa	Surf	302.6	2086
03-Nov-86	Huron #3	168 hr SI		1344 kPa	Surf	218.8	1509
03-Nov-86	Huron #4	168 hr SI		1323 kPa	Surf	215.5	1486
15-Dec-87	Huron #3	168 hr SI		735 kPa	Surf	126.4	871
15-Dec-87	Huron #4	168 hr SI		720 kPa	Surf	124.1	854
04-Nov-88	Huron #3	336 hr SI		138 kPa	Surf	35.9	247
04-Nov-88	Huron #4	336 hr SI		138 kPa	Surf	35.9	247
07-Dec-95	Huron #3	Extended		179 kPa	Surf	42.1	290
07-Dec-95	Huron #4	Extended		197 kPa	Surf	44.8	309
06-Apr-98	Huron #3	Extended		193 kPa	Surf	44.2	305
06-Apr-98	Huron #4	Extended		193 kPa	Surf	44.2	305
20-Nov-99	Huron #3	?		69 kPa	Surf	25.4	175
20-Nov-99	Huron #4	?		193 kPa	Surf	44.2	305
14-Apr-00	Huron #3	?		69 kPa	Surf	25.4	175
14-Apr-00	Huron #4	?		193 kPa	Surf	44.2	305
10-Dec-01	Huron #3	Extended		69 kPa	Surf	25.4	175
10-Dec-01	Huron #4	Extended		69 kPa	Surf	25.4	175
31-Oct-02	Huron #3	Extended		69 kPa	Surf	25.4	175
31-Oct-02	Huron #4	Extended		69 kPa	Surf	25.4	175
26-Sep-03	Huron #3	Extended		69 kPa	Surf	25.4	175
26-Sep-03	Huron #4	Extended		69 kPa	Surf	25.4	175
08-Jul-04	Huron #3	Extended		69 kPa	Surf	25.4	175
08-Jul-04	Huron #4	Extended		69 kPa	Surf	25.4	175
15-Apr-05	Huron #3	Extended		69 kPa	Surf	25.4	175
15-Apr-05	Huron #4	Extended		69 kPa	Surf	25.4	175
14-Jan-09	Tribute 25	New well pressure		172 kPa	Downhole	39.2	270

	Gauge 1 Date	Gauge 1 Time	Gauge 1 Pres.	Gauge 1 Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C
1	2008/12/23 11:38:00	0.0000	108.38	17.20
2	2008/12/23 14:38:58	3.0161	270.10	11.98
3	2008/12/23 17:38:58	6.0161	270.06	12.11
4	2008/12/23 20:38:58	9.0161	270.03	12.12
5	2008/12/23 23:38:58	12.0161	270.00	12.12
6	2008/12/24 02:38:58	15.0161	269.94	12.12
7	2008/12/24 05:39:58	18.0328	269.93	12.12
8	2008/12/24 08:39:58	21.0328	269.95	12.13
9	2008/12/24 11:39:58	24.0328	269.96	12.12
10	2008/12/24 14:39:58	27.0328	269.93	12.12
11	2008/12/24 17:39:58	30.0328	269.96	12.12
12	2008/12/24 20:39:58	33.0328	270.00	12.12
13	2008/12/24 23:39:58	36.0328	269.95	12.12
14	2008/12/25 02:39:58	39.0328	269.93	12.12
15	2008/12/25 05:39:58	42.0328	269.99	12.12
16	2008/12/25 08:39:58	45.0328	269.99	12.12
17	2008/12/25 11:39:58	48.0328	270.03	12.12
18	2008/12/25 14:39:58	51.0328	269.98	12.13
19	2008/12/25 17:39:58	54.0328	270.03	12.12
20	2008/12/25 20:39:58	57.0328	270.05	12.13
21	2008/12/25 23:39:58	60.0328	270.01	12.13
22	2008/12/26 02:39:58	63.0328	270.04	12.13
23	2008/12/26 05:40:58	66.0494	270.09	12.12
24	2008/12/26 08:40:58	69.0494	270.05	12.12
25	2008/12/26 11:40:58	72.0494	270.09	12.12
26	2008/12/26 14:40:58	75.0494	270.12	12.12
27	2008/12/26 17:40:58	78.0494	270.11	12.13
28	2008/12/26 20:40:58	81.0494	270.15	12.13
29	2008/12/26 23:40:58	84.0494	270.18	12.13
30	2008/12/27 02:40:58	87.0494	270.13	12.12
31	2008/12/27 05:40:58	90.0494	270.13	12.12
32	2008/12/27 08:40:58	93.0494	270.13	12.12
33	2008/12/27 11:40:58	96.0494	270.19	12.12
34	2008/12/27 14:40:58	99.0494	270.22	12.12
35	2008/12/27 17:40:58	102.0494	270.14	12.13
36	2008/12/27 20:40:58	105.0494	270.19	12.12
37	2008/12/27 23:40:58	108.0494	270.25	12.12
38	2008/12/28 02:40:58	111.0494	270.18	12.12
39	2008/12/28 05:40:58	114.0494	270.19	12.12
40	2008/12/28 08:40:58	117.0494	270.23	12.12
41	2008/12/28 11:40:58	120.0494	270.22	12.12
42	2008/12/28 14:40:58	123.0494	270.21	12.13
43	2008/12/28 17:40:58	126.0494	270.25	12.12
44	2008/12/28 20:40:58	129.0494	270.32	12.12
45	2008/12/28 23:40:58	132.0494	270.24	12.13

Print Filter: Approximately every 178 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Gauge 1		2008/12/23	11:38:00	m

	Gauge 1 Date	Gauge 1 Time	Gauge 1 Pres.	Gauge 1 Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C
46	2008/12/29 02:40:58	135.0494	270.24	12.13
47	2008/12/29 05:40:58	138.0494	270.25	12.12
48	2008/12/29 08:40:58	141.0494	270.25	12.13
49	2008/12/29 11:40:58	144.0494	270.28	12.13
50	2008/12/29 14:40:58	147.0494	270.27	12.13
51	2008/12/29 17:40:58	150.0494	270.25	12.13
52	2008/12/29 20:40:58	153.0494	270.31	12.13
53	2008/12/29 23:40:58	156.0494	270.26	12.12
54	2008/12/30 02:40:58	159.0494	270.32	12.12
55	2008/12/30 05:40:58	162.0494	270.29	12.12
56	2008/12/30 08:40:58	165.0494	270.35	12.12
57	2008/12/30 11:40:58	168.0494	270.35	12.12
58	2008/12/30 14:40:58	171.0494	270.29	12.12
59	2008/12/30 17:40:58	174.0494	270.29	12.12
60	2008/12/30 20:40:58	177.0494	270.31	12.13
61	2008/12/30 23:40:58	180.0494	270.29	12.12
62	2008/12/31 02:40:58	183.0494	270.34	12.13
63	2008/12/31 05:40:58	186.0494	270.32	12.12
64	2008/12/31 08:40:58	189.0494	270.27	12.13
65	2008/12/31 11:40:58	192.0494	270.35	12.12
66	2008/12/31 14:40:58	195.0494	270.33	12.13
67	2008/12/31 17:40:58	198.0494	270.30	12.13
68	2008/12/31 20:40:58	201.0494	270.35	12.13
69	2008/12/31 23:40:58	204.0494	270.35	12.12
70	2009/01/01 02:40:58	207.0494	270.37	12.13
71	2009/01/01 05:40:58	210.0494	270.35	12.13
72	2009/01/01 08:40:58	213.0494	270.38	12.13
73	2009/01/01 11:40:58	216.0494	270.39	12.12
74	2009/01/01 14:40:58	219.0494	270.35	12.12
75	2009/01/01 17:40:58	222.0494	270.42	12.12
76	2009/01/01 20:40:58	225.0494	270.39	12.12
77	2009/01/01 23:40:58	228.0494	270.43	12.12
78	2009/01/02 02:40:58	231.0494	270.41	12.13
79	2009/01/02 05:40:58	234.0494	270.41	12.13
80	2009/01/02 08:40:58	237.0494	270.41	12.13
81	2009/01/02 11:40:58	240.0494	270.41	12.13
82	2009/01/02 14:40:58	243.0494	270.41	12.13
83	2009/01/02 17:40:58	246.0494	270.41	12.13
84	2009/01/02 20:40:58	249.0494	270.38	12.13
85	2009/01/02 23:40:58	252.0494	270.26	12.13
86	2009/01/03 02:40:58	255.0494	270.45	12.12
87	2009/01/03 05:40:58	258.0494	270.38	12.13
88	2009/01/03 08:40:58	261.0494	270.47	12.12
89	2009/01/03 11:40:58	264.0494	270.45	12.12
90	2009/01/03 14:40:58	267.0494	270.46	12.12

Print Filter: Approximately every 178 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Gauge 1		2008/12/23	11:38:00	m

	Gauge 1 Date	Gauge 1 Time	Gauge 1 Pres.	Gauge 1 Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C
91	2009/01/03 17:40:58	270.0494	270.42	12.12
92	2009/01/03 20:40:58	273.0494	270.42	12.12
93	2009/01/03 23:40:58	276.0494	270.45	12.12
94	2009/01/04 02:40:58	279.0494	270.44	12.13
95	2009/01/04 05:40:58	282.0494	270.41	12.13
96	2009/01/04 08:40:58	285.0494	270.42	12.12
97	2009/01/04 11:40:58	288.0494	270.44	12.13
98	2009/01/04 14:40:58	291.0494	270.43	12.13
99	2009/01/04 17:40:58	294.0494	270.48	12.12
100	2009/01/04 20:40:58	297.0494	270.48	12.12
101	2009/01/04 23:40:58	300.0494	270.52	12.12
102	2009/01/05 02:40:58	303.0494	270.46	12.12
103	2009/01/05 05:40:58	306.0494	270.42	12.12
104	2009/01/05 08:40:58	309.0494	270.48	12.12
105	2009/01/05 11:40:58	312.0494	270.49	12.12
106	2009/01/05 14:40:58	315.0494	270.48	12.12
107	2009/01/05 17:40:58	318.0494	270.46	12.12
108	2009/01/05 20:40:58	321.0494	270.47	12.13
109	2009/01/05 23:40:58	324.0494	270.41	12.13
110	2009/01/06 02:40:58	327.0494	270.48	12.12
111	2009/01/06 05:40:58	330.0494	270.47	12.13
112	2009/01/06 08:40:58	333.0494	270.53	12.12
113	2009/01/06 11:40:58	336.0494	270.45	12.12
114	2009/01/06 14:40:58	339.0494	270.45	12.12
115	2009/01/06 17:40:58	342.0494	270.51	12.13
116	2009/01/06 20:40:58	345.0494	270.48	12.12
117	2009/01/06 23:40:58	348.0494	270.56	12.12
118	2009/01/07 02:40:58	351.0494	270.52	12.12
119	2009/01/07 05:40:58	354.0494	270.48	12.12
120	2009/01/07 08:40:58	357.0494	270.52	12.12
121	2009/01/07 11:40:58	360.0494	270.52	12.12
122	2009/01/07 14:40:58	363.0494	270.54	12.13
123	2009/01/07 17:40:58	366.0494	270.55	12.12
124	2009/01/07 20:40:58	369.0494	270.54	12.12
125	2009/01/07 23:40:58	372.0494	270.48	12.12
126	2009/01/08 02:40:58	375.0494	270.57	12.13
127	2009/01/08 05:40:58	378.0494	270.61	12.13
128	2009/01/08 08:40:58	381.0494	270.58	12.12
129	2009/01/08 11:40:58	384.0494	270.55	12.12
130	2009/01/08 14:40:58	387.0494	270.60	12.13
131	2009/01/08 17:40:58	390.0494	270.59	12.12
132	2009/01/08 20:40:58	393.0494	270.58	12.12
133	2009/01/08 23:40:58	396.0494	270.58	12.12
134	2009/01/09 02:40:58	399.0494	270.58	12.12
135	2009/01/09 05:40:58	402.0494	270.58	12.12

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Gauge Name
 Gauge 1

Serial Number

Start Date
 2008/12/23

Start Time
 11:38:00

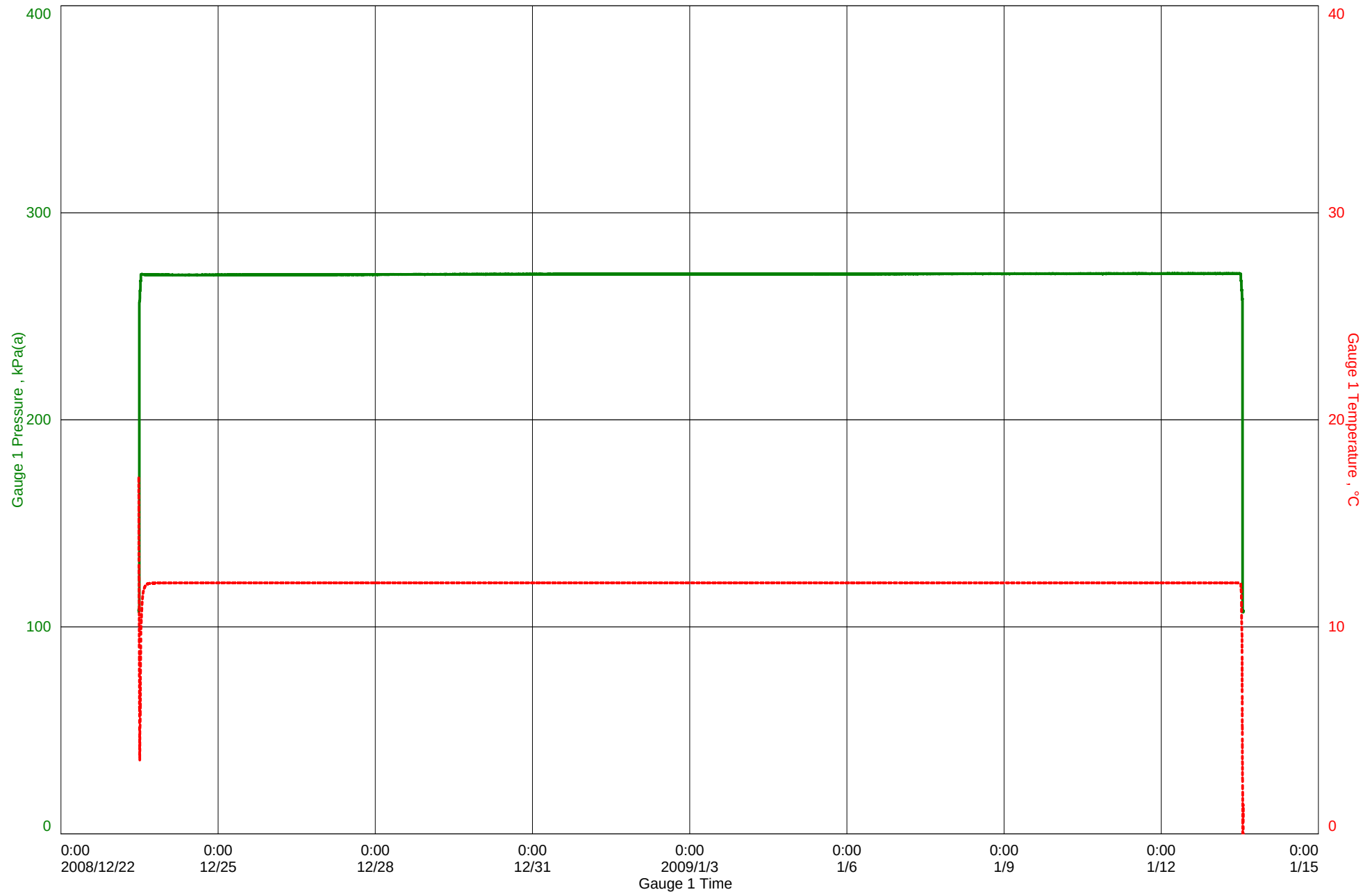
Run Depth (TVD)
 m

	Gauge 1 Date	Gauge 1 Time	Gauge 1 Pres.	Gauge 1 Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C
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137	2009/01/09 11:40:58	408.0494	270.58	12.12
138	2009/01/09 14:40:58	411.0494	270.61	12.12
139	2009/01/09 17:40:58	414.0494	270.62	12.12
140	2009/01/09 20:40:58	417.0494	270.58	12.12
141	2009/01/09 23:40:58	420.0494	270.59	12.12
142	2009/01/10 02:40:58	423.0494	270.58	12.12
143	2009/01/10 05:40:58	426.0494	270.58	12.12
144	2009/01/10 08:40:58	429.0494	270.63	12.12
145	2009/01/10 11:40:58	432.0494	270.59	12.12
146	2009/01/10 14:40:58	435.0494	270.64	12.13
147	2009/01/10 17:40:58	438.0494	270.61	12.12
148	2009/01/10 20:40:58	441.0494	270.63	12.12
149	2009/01/10 23:40:58	444.0494	270.58	12.12
150	2009/01/11 02:40:58	447.0494	270.51	12.13
151	2009/01/11 05:40:58	450.0494	270.57	12.13
152	2009/01/11 08:40:58	453.0494	270.64	12.13
153	2009/01/11 11:40:58	456.0494	270.62	12.12
154	2009/01/11 14:40:58	459.0494	270.66	12.12
155	2009/01/11 17:40:58	462.0494	270.59	12.12
156	2009/01/11 20:40:58	465.0494	270.60	12.12
157	2009/01/11 23:40:58	468.0494	270.58	12.12
158	2009/01/12 02:40:58	471.0494	270.69	12.12
159	2009/01/12 05:40:58	474.0494	270.63	12.12
160	2009/01/12 08:40:58	477.0494	270.58	12.12
161	2009/01/12 11:40:58	480.0494	270.65	12.12
162	2009/01/12 14:40:58	483.0494	270.65	12.12
163	2009/01/12 17:40:58	486.0494	270.65	12.12
164	2009/01/12 20:40:58	489.0494	270.62	12.12
165	2009/01/12 23:40:58	492.0494	270.58	12.12
166	2009/01/13 02:40:58	495.0494	270.65	12.12
167	2009/01/13 05:40:58	498.0494	270.59	12.12
168	2009/01/13 08:40:58	501.0494	270.64	12.13
169	2009/01/13 11:40:58	504.0494	270.66	12.12
170				

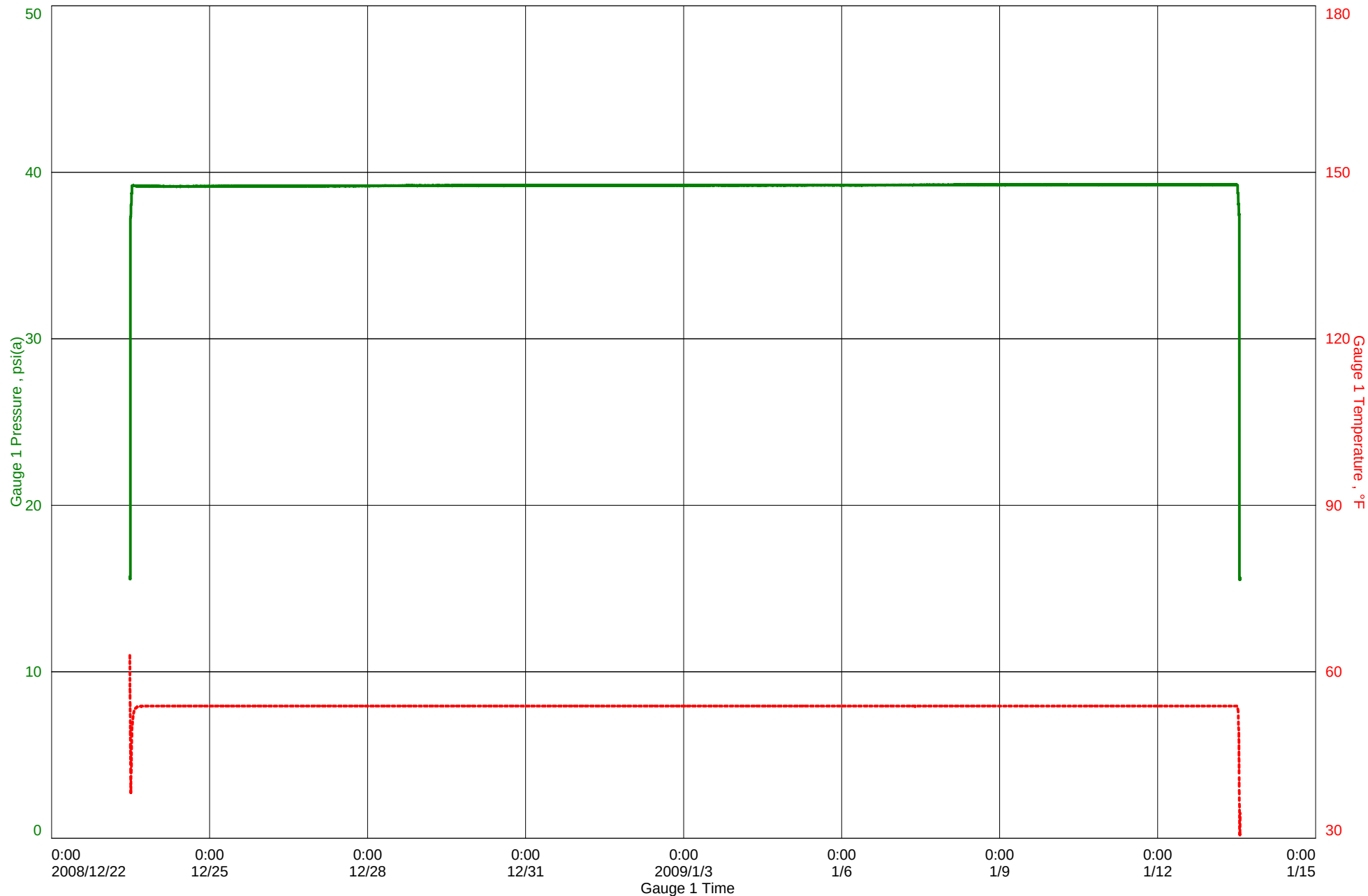
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Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Gauge 1		2008/12/23	11:38:00	m

Tribute 25



Tribute 25



Stanley 4-7-XI Pool Reservoir Engineering Report

Schedule 3 – Material Balance Plot and

Original Gas-in-Place

**Material Balance
Summary of Results**
(as at September 1, 2009)

Stanley
Stanley Guelph

Default Analysis

Initial Reservoir Pressure	3010 kPa(a)	436.6 psi(a)
Reservoir Temperature	13.1 °C	56 °F

<u>Original Volumes</u>	(10 ⁶ m ³)	(Bcf)
--------------------------------	-----------------------------------	-------

Main Producing Pool

Gas-In-Place (OGIP)	19.278	0.684
Pool Recovery	110.00 %	110.00 %
Recoverable GIP	21.206	0.753
Surface Losses	5.00 %	5.00 %
Marketable GIP	20.146	0.715

Flow Volumes (Cumulative)

Raw Gas Produced	21.005	0.746
Marketable Gas Produced	19.955	0.708
Gas Injected	0.000	0.000
Net Sales	19.955	0.708

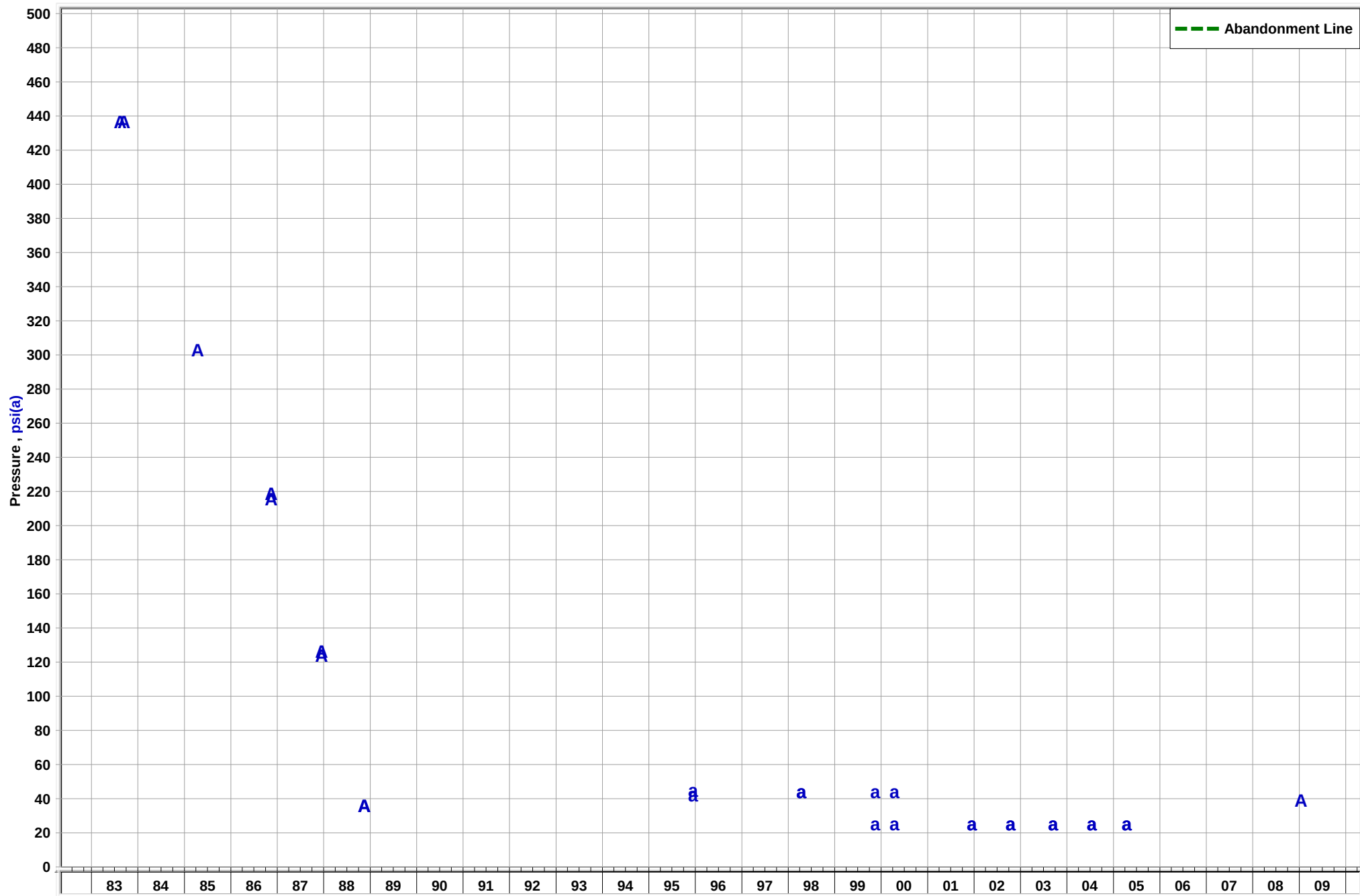
Remaining Volumes

Recoverable Gas Reserves	0.201	0.007
Marketable Gas Reserves	0.191	0.007

Gas Properties

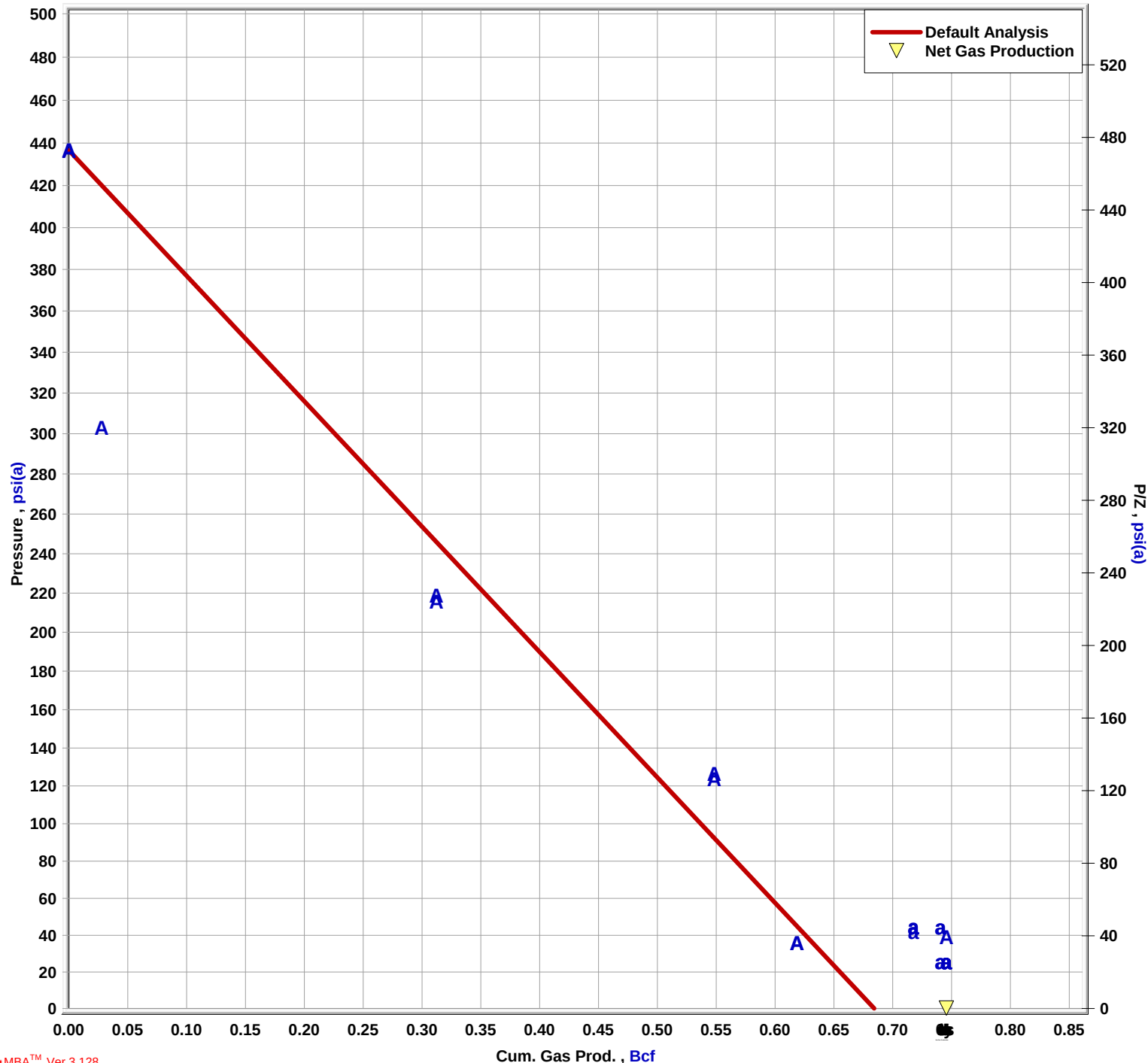
Gas Gravity	0.660	
N ₂	6.33 %	
CO ₂	0.03 %	
H ₂ S	0.00 %	
T _c	201 K	361.5 °R
P _c	4551 kPa(a)	660.1 psi(a)

Stanley Guelph
Stanley



Stanley Guelph

Stanley



Stanley

Initial Reservoir Pressure	436.6 psi(a)
Reservoir Temperature	56 °F

Original Volumes	
Gas-In-Place (OGIP)	0.684 Bcf
Pool Recovery	110.000 %
Recoverable GIP	0.753 Bcf
Surface Loss	5.000 %
Marketable GIP	0.715 Bcf

Flow Volumes (Cumulative)	
Raw Gas Produced	0.746 Bcf
Marketable Gas Produced	0.708 Bcf
Gas Injected	0.000 Bcf
Net Sales	0.708 Bcf

Remaining	
Original Gas-In-Place	0.000 Bcf
Recoverable Gas Reserves	0.007 Bcf
Marketable Gas Reserves	0.007 Bcf

Gas Properties	
Gas Gravity	0.660
N ₂	6.330 %
CO ₂	0.030 %
H ₂ S	0.000 %
T _c	362 °R
P _c	660.1 psi

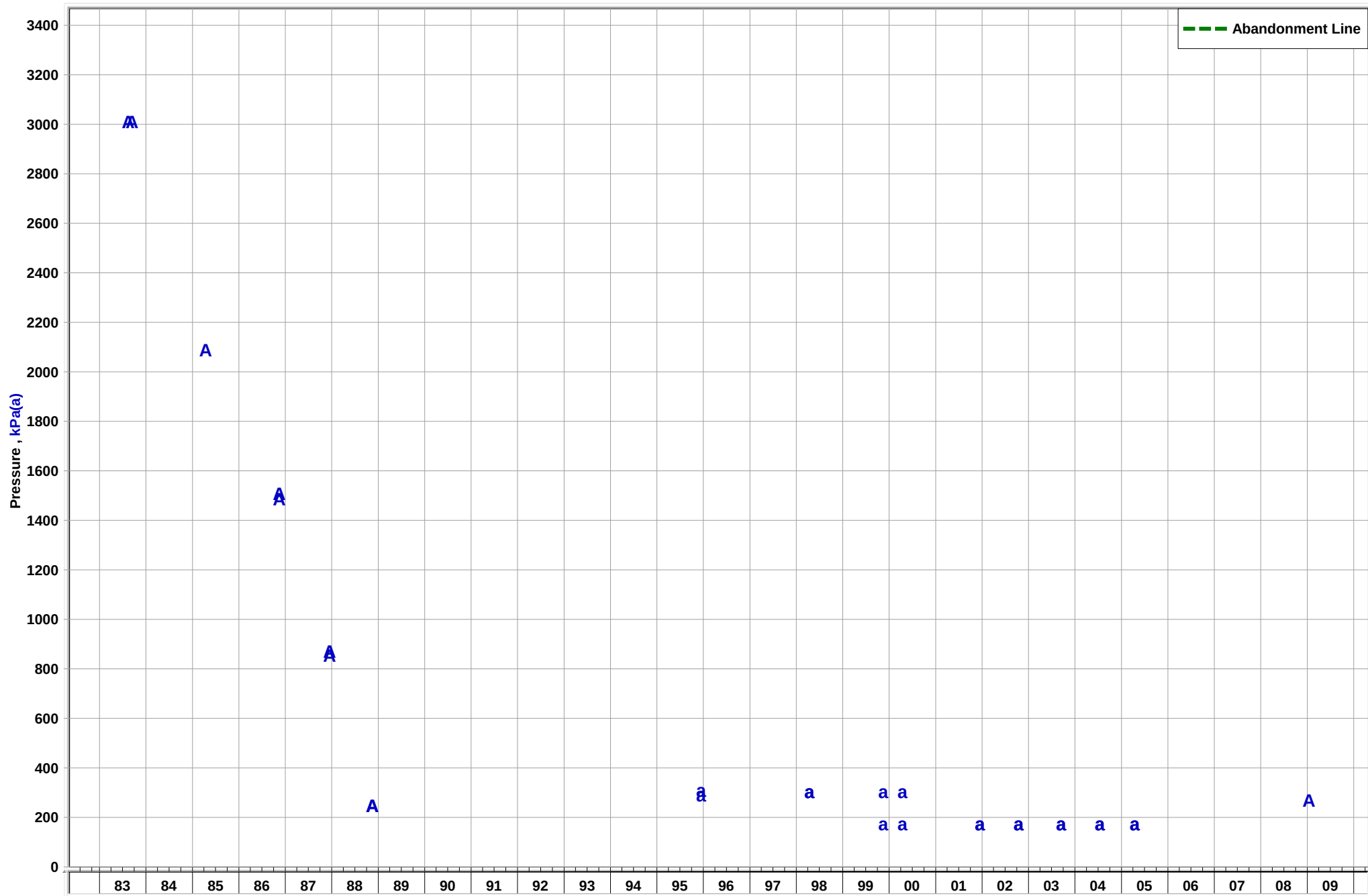
Summary Data Report
(as at September 1, 2009)

Stanley
Stanley Guelph

Default Analysis

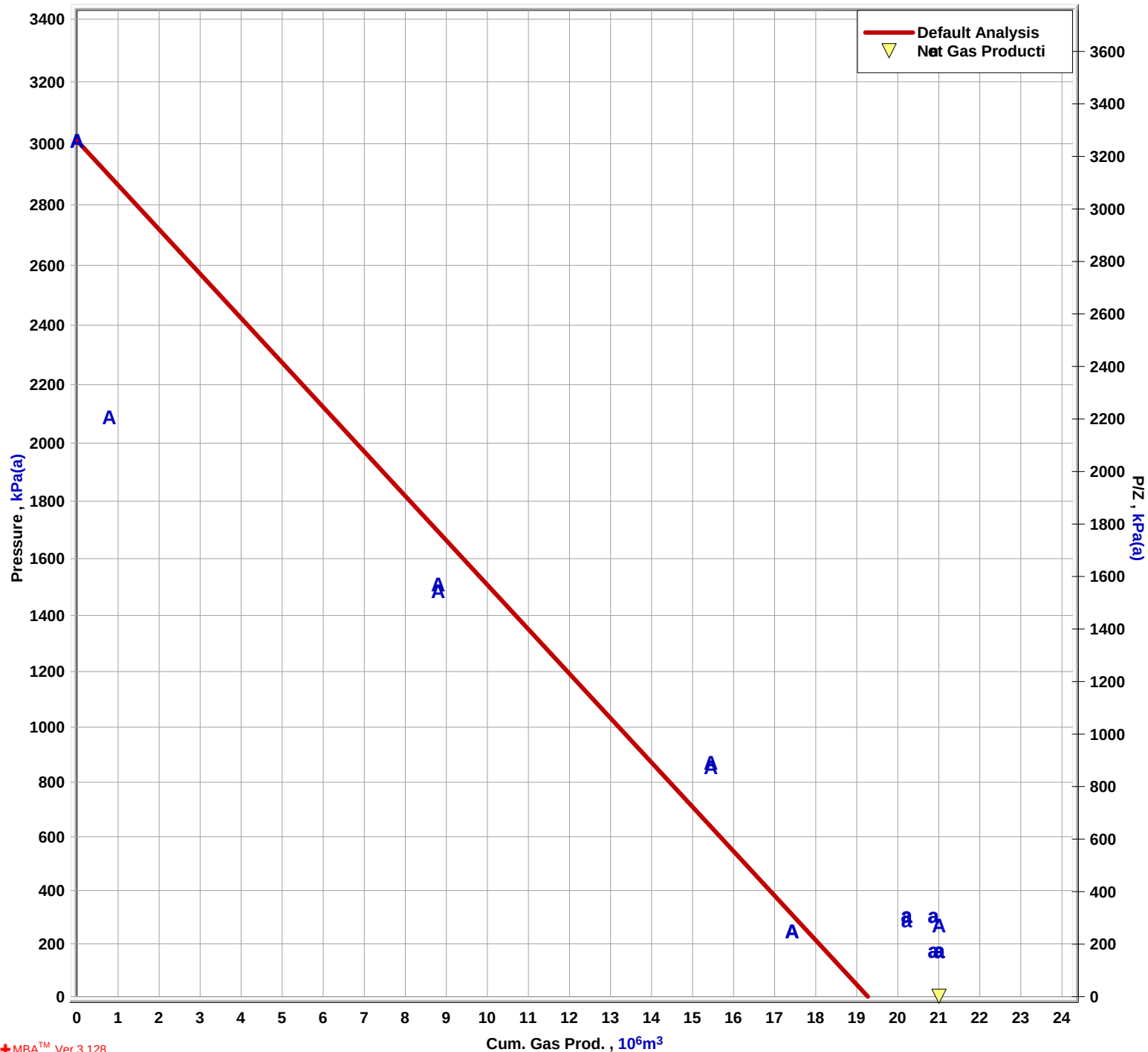
<u>Date</u>	<u>Unique Well ID</u>	<u>Reservoir Pressure</u> (psi(a))	<u>Z</u>	<u>P/Z</u> (psi(a))	<u>Cumulative Gas Production</u> (Bcf)	<u>Selected</u>
Aug. 17, 83	0Huron 3/4	436.60	0.923	472.90	0.000	Yes
Sep. 16, 83	0Huron 3/4	436.40	0.923	472.66	0.000	Yes
Apr. 14, 85	0Huron 3/4	302.80	0.947	319.84	0.028	Yes
Nov. 03, 86	0Huron 3/4	215.53	0.962	224.02	0.312	Yes
Nov. 03, 86	0Huron 3/4	218.86	0.961	227.63	0.312	Yes
Dec. 15, 87	0Huron 3/4	126.33	0.978	129.20	0.548	Yes
Dec. 15, 87	0Huron 3/4	123.86	0.978	126.62	0.548	Yes
Nov. 03, 88	0Huron 3/4	35.82	0.994	36.05	0.619	Yes
Nov. 03, 88	0Huron 3/4	35.82	0.994	36.05	0.619	Yes
Dec. 07, 95	0Huron 3/4	44.82	0.992	45.17	0.718	No
Dec. 07, 95	0Huron 3/4	42.06	0.993	42.37	0.718	No
Apr. 01, 98	0Huron 3/4	44.24	0.992	44.58	0.718	No
Apr. 01, 98	0Huron 3/4	44.24	0.992	44.58	0.718	No
Nov. 20, 99	0Huron 3/4	25.38	0.996	25.50	0.740	No
Nov. 20, 99	0Huron 3/4	44.24	0.992	44.58	0.740	No
Apr. 14, 00	0Huron 3/4	44.24	0.992	44.58	0.741	No
Apr. 14, 00	0Huron 3/4	25.38	0.996	25.50	0.741	No
Dec. 10, 01	0Huron 3/4	25.38	0.996	25.50	0.746	No
Dec. 10, 01	0Huron 3/4	25.38	0.996	25.50	0.746	No
Oct. 31, 02	0Huron 3/4	25.38	0.996	25.50	0.746	No
Oct. 31, 02	0Huron 3/4	25.38	0.996	25.50	0.746	No
Sep. 26, 03	0Huron 3/4	25.38	0.996	25.50	0.746	No
Sep. 26, 03	0Huron 3/4	25.38	0.996	25.50	0.746	No
Jul. 08, 04	0Huron 3/4	25.38	0.996	25.50	0.746	No
Jul. 08, 04	0Huron 3/4	25.38	0.996	25.50	0.746	No
Apr. 15, 05	0Huron 3/4	25.38	0.996	25.50	0.746	No
Apr. 15, 05	0Huron 3/4	25.38	0.996	25.50	0.746	No
Jan. 14, 09	0Huron 3/4	39.16	0.993	39.43	0.746	Yes

Stanley Guelph
Stanley



Stanley Guelph

Stanley



Stanley

Initial Reservoir Pressure	3010 kPa(a)
Reservoir Temperature	13.1 °C
Original Volumes	
Gas-In-Place (OGIP)	19.270 10 ⁶ m ³
Pool Recovery	110.000 %
Recoverable GIP	21.197 10 ⁶ m ³
Surface Loss	5.000 %
Marketable GIP	20.137 10 ⁶ m ³
Flow Volumes (Cumulative)	
Raw Gas Produced	21.005 10 ⁶ m ³
Marketable Gas Produced	19.955 10 ⁶ m ³
Gas Injected	0.000 10 ⁶ m ³
Net Sales	19.955 10 ⁶ m ³
Remaining	
Original Gas-In-Place	0.000 10 ⁶ m ³
Recoverable Gas Reserves	0.192 10 ⁶ m ³
Marketable Gas Reserves	0.183 10 ⁶ m ³
Gas Properties	
Gas Gravity	0.660
N ₂	6.330 %
CO ₂	0.030 %
H ₂ S	0.000 %
T _c	200.8 K
P _c	4551 kPa

Summary Data Report
(as at September 1, 2009)

Stanley
Stanley Guelph

Default Analysis

<u>Date</u>	<u>Unique Well ID</u>	<u>Reservoir Pressure</u> (kPa(a))	<u>Z</u>	<u>P/Z</u> (kPa(a))	<u>Cumulative Gas Production</u> ^{6 3} (10 m ³)	<u>Selected</u>
Aug. 17, 83	0Huron 3/4	3010.25	0.923	3260.52	0.000	Yes
Sep. 16, 83	0Huron 3/4	3008.87	0.923	3258.91	0.000	Yes
Apr. 14, 85	0Huron 3/4	2087.73	0.947	2205.25	0.783	Yes
Nov. 03, 86	0Huron 3/4	1486.00	0.962	1544.59	8.800	Yes
Nov. 03, 86	0Huron 3/4	1509.00	0.961	1569.45	8.800	Yes
Dec. 15, 87	0Huron 3/4	871.00	0.978	890.79	15.449	Yes
Dec. 15, 87	0Huron 3/4	854.00	0.978	873.02	15.449	Yes
Nov. 03, 88	0Huron 3/4	247.00	0.994	248.57	17.429	Yes
Nov. 03, 88	0Huron 3/4	247.00	0.994	248.57	17.429	Yes
Dec. 07, 95	0Huron 3/4	309.00	0.992	311.46	20.218	No
Dec. 07, 95	0Huron 3/4	290.00	0.993	292.16	20.218	No
Apr. 01, 98	0Huron 3/4	305.00	0.992	307.39	20.218	No
Apr. 01, 98	0Huron 3/4	305.00	0.992	307.39	20.218	No
Nov. 20, 99	0Huron 3/4	175.00	0.996	175.78	20.860	No
Nov. 20, 99	0Huron 3/4	305.00	0.992	307.39	20.860	No
Apr. 14, 00	0Huron 3/4	305.00	0.992	307.39	20.872	No
Apr. 14, 00	0Huron 3/4	175.00	0.996	175.78	20.872	No
Dec. 10, 01	0Huron 3/4	175.00	0.996	175.78	21.005	No
Dec. 10, 01	0Huron 3/4	175.00	0.996	175.78	21.005	No
Oct. 31, 02	0Huron 3/4	175.00	0.996	175.78	21.005	No
Oct. 31, 02	0Huron 3/4	175.00	0.996	175.78	21.005	No
Sep. 26, 03	0Huron 3/4	175.00	0.996	175.78	21.005	No
Sep. 26, 03	0Huron 3/4	175.00	0.996	175.78	21.005	No
Jul. 08, 04	0Huron 3/4	175.00	0.996	175.78	21.005	No
Jul. 08, 04	0Huron 3/4	175.00	0.996	175.78	21.005	No
Apr. 15, 05	0Huron 3/4	175.00	0.996	175.78	21.005	No
Apr. 15, 05	0Huron 3/4	175.00	0.996	175.78	21.005	No
Jan. 14, 09	0Huron 3/4	270.00	0.993	271.87	21.005	Yes

Stanley 4-7-XI Pool Reservoir Engineering Report

Schedule 4 – Tribute Resources et al #25: Stanley 3-7-XI

Threshold Pressure Test Report



Threshold Pressure Testing (A2 ANHYDRITE)

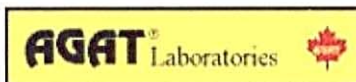
@ Stanley 3-7-XI

W/O: 08RE2532

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December 2008

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TABLE OF CONTENTS

<i>LIST OF TABLES</i>	<i>iii</i>
<i>LIST OF FIGURES</i>	<i>iii</i>
<i>1. STUDY OBJECTIVE</i>	<i>4</i>
<i>2. SCOPE OF WORK</i>	<i>4</i>
<i>3. EXECUTIVE SUMMARY</i>	<i>4</i>
<i>4. EXPERIMENTAL PROCEDURE</i>	<i>7</i>
<i>5. TABLES AND FIGURES</i>	<i>8</i>

LIST OF TABLES

<i>Table A: Summary of Petrophysical Properties.....</i>	<i>6</i>
<i>Table 1: SP-1 (476.575m) – Flow Measurement Data.....</i>	<i>9</i>
<i>Table 2: SP-2 (476.625m) – Flow Measurement Data.....</i>	<i>10</i>
<i>Table 3: SP-3 (476.835m) – Flow Measurement Data.....</i>	<i>11</i>

LIST OF FIGURES

<i>Figure 1a: SP-1 (476.575m)- Permeability Vs. Intrusion Pressure @ OB 10mPa.....</i>	<i>12</i>
<i>Figure 1b: SP-1 (476.575m)- Permeability Vs. Intrusion Pressure @ OB 12mPa.....</i>	<i>12</i>
<i>Figure 1c: SP-1 (476.575m)- Flow Rate Vs. Intrusion Pressure @ OB 10mPa.....</i>	<i>13</i>
<i>Figure 1d: SP-1 (476.575m)- Flow Rate Vs. Intrusion Pressure @ OB 12mPa</i>	<i>13</i>
<i>Figure 2a: SP-2 (476.625m)- Permeability Vs. Intrusion Pressure @ OB 10mPa.....</i>	<i>14</i>
<i>Figure 2b: SP-2 (476.625m)- Permeability Vs. Intrusion Pressure @ OB 12mPa.....</i>	<i>14</i>
<i>Figure 2c: SP-2 (476.625m)- Flow Rate Vs. Intrusion Pressure @ OB 10mPa.....</i>	<i>15</i>
<i>Figure 2d: SP-2 (476.625m)- Flow Rate Vs. Intrusion Pressure @ OB 12mPa</i>	<i>15</i>
<i>Figure 3a: SP-3 (476.835m)- Permeability Vs. Intrusion Pressure @ OB 10mPa.....</i>	<i>16</i>
<i>Figure 3b: SP-3 (476.835m)- Permeability Vs. Intrusion Pressure @ OB 12mPa.....</i>	<i>16</i>
<i>Figure 3c: SP-3 (476.835m)- Flow Rate Vs. Intrusion Pressure @ OB 10mPa.....</i>	<i>17</i>
<i>Figure 3d: SP-3 (476.835m)- Flow Rate Vs. Intrusion Pressure @ OB 12mPa</i>	<i>17</i>

1. STUDY OBJECTIVE

The objective of this study was to determine the threshold pressures of the specified plug samples from the well Tribute et al # 25 located at Stanley 3-7-XI.

2. SCOPE OF WORK

The tasks involved in this study consisted of the following:

1. Measurement of routine porosity of the core samples.
2. Measurement of routine permeability of the core samples.
3. Measurement of permeability at specified overburden pressures in terms of Threshold Pressure Test.

3. EXECUTIVE SUMMARY

Three (3) core-plug samples from the well Tribute et al #25 @ Stanley 3-7-XI were selected to conduct the threshold pressure testing. The samples chosen were at the depth intervals of 476.575, 476.625 and 476.835 m.

The three samples, namely SP-1, SP-2 and SP-3, from the well were found to have routine helium porosity of 0.23, 0.50 and 1.25%, and routine gas permeability of 0.00111, 0.00021 and 0.02661 mD. The sample SP-2 has the lowest permeability compared to SP-1 and SP-3. The Grain densities of the samples were determined to be 2909, 2914 and 2869 kg/m³. (Refer to table A)

Initially, an overburden pressure of 10 mPa was applied to the samples and the intrusion pressure was gradually increased in the order of 2, 5, 8 & 10 mPa. At an intrusion pressure of 2 mPa, the samples' effective gas permeabilities were found to range from 0.000038 to 0.009100 mD. Increasing the intrusion pressure to 5 mPa resulted in effective permeabilities ranging from 0.000043 to 0.012300 mD. At an

intrusion pressure of 8 mPa, the samples' effective gas permeabilities were found to range from 0.000052 to 0.014400 mD.

The overburden pressure was then increased to 12 mPa, and the intrusion pressure was incrementally increased in the order of 2, 5, 8, and 10 mPa. At an intrusion pressure of 2 mPa, the samples' effective gas permeabilities were found to range from 0.000034 to 0.008715 mD. Increasing the intrusion pressure to 5 mPa resulted in effective permeabilities ranging from 0.000044 to 0.009407 mD. At an intrusion pressure of 8 mPa, the samples' effective gas permeabilities were found to range from 0.000049 to 0.009915 mD. At an intrusion pressure of 10 mPa, the samples' effective gas permeabilities were found to range from 0.000054 to 0.012539 mD.

The results indicate that the gas will be produced at an intrusion pressure of 2 mPa and above at a minimum overburden pressure of all samples. Increasing the overburden pressure from 10 mPa to 12 mPa was found to decrease the permeability of the samples, indicating that some portions of the pore throats might be blocked with an application of a higher overburden pressure.

For the perspective of cap rock's sealing capacity, it is important to consider the phase and mechanical properties of the injection gas, the driving force of gas injection, type of formation cap rock structure, as well as the characteristics of the flow paths as they relate to flow rate and permeability.

Summary of threshold pressure testing results are presented in *Table A* and results for individual sample were presented in *Tables 1 to 3* and *Figures 1a to 3d*.

Table A: Summary of Threshold Pressure Testing

Sample	Well Name	Location	Depth (m)	Length (cm)	GD (kg/m ³)	Bulk Volume (cc)	Pore Volume (cc)	Routine @ 2 mPa		Over Burden Pressure = 10 mPa					
								φ (%)	K _g (mD)	2 mPa @ 10		5 mPa @ 10		8 mPa @ 10	
										Q (cc/hr)	k _g (md)	Q (cc/hr)	k _g (md)	Q (cc/hr)	k _g (md)
SP-1	Tribute-25	3-7-X1	476.575	4.494	2909	51.90	0.1177	0.23	0.00111	1.3425	0.0001300	1.6242100	0.0001700	1.6800000	0.0001980
SP-2	Tribute-25	3-7-X1	476.625	4.502	2914	52.01	0.2629	0.50	0.00021	0.6046	0.0000380	0.6738000	0.0000430	0.7560000	0.0000520
SP-3	Tribute-25	3-7-X1	476.835	4.480	2869	51.24	0.6478	1.25	0.02661	5.5963	0.0091000	9.2058000	0.0123000	9.1876000	0.0144000
Max								1.25	0.02661	5.596300	0.009100	9.205800	0.012300	9.187600	0.014400
Min								0.23	0.00021	0.604600	0.000038	0.673800	0.000043	0.756000	0.000052

Sample	Well Name	Location	Depth (m)	Length (cm)	GD (kg/m ³)	Bulk Volume (cc)	Pore Volume (cc)	Over Burden Pressure = 12 mPa							
								2 mPa @ 12		5 mPa @ 12		8 mPa @ 12		10 mPa @ 12	
								Q (cc/hr)	k _g (md)	Q (cc/hr)	k _g (md)	Q (cc/hr)	k _g (md)	Q (cc/hr)	k _g (md)
SP-1	Tribute-25	3-7-X1	476.575	4.494	2909	51.90	0.1177	1.5400000	0.0001100	1.6536000	0.0001200	1.7100000	0.0001290	1.7430000	0.0001658
SP-2	Tribute-25	3-7-X1	476.625	4.502	2914	52.01	0.2629	0.9720000	0.0000337	1.0560000	0.0000440	1.2480000	0.0000490	1.5391143	0.0000537
SP-3	Tribute-25	3-7-X1	476.835	4.480	2869	51.24	0.6478	10.0608000	0.0087148	10.0854000	0.0094066	10.1136000	0.0099149	10.1655000	0.0125386
Max								10.060800	0.008715	10.085400	0.009407	10.113600	0.009915	10.165500	0.012539
Min								0.972000	0.000034	1.056000	0.000044	1.248000	0.000049	1.539114	0.000054

φ - porosity

GD - grain density

K_g - Gas permeability

Q - Flow rate

4. EXPERIMENTAL PROCEDURE

Total of three (3) native core plug samples were extracted from the well - Tribute et al 25 located at Stanley 3-7-XI. These samples were taken from A2 CARB/A2 SHALE/A2 ANHYDRITE formation. These samples were selected to undergo the threshold pressure testing at the given overburden pressures and intrusion pressures.

The samples, received as native, were trimmed to a cylindrical shape and oven dried at 80° C. Their routine petrophysical properties of porosity (Boyle's Law porosity) and permeability were measured.

For the slow flow paths, the native state samples were individually mounted in a tri-axial coreholder and stressed to the following conditions:

Overburden Pressure = 10.0 MPa (1450 psi) with an intrusion pressures of 2,5,8 MPa
Overburden Pressure = 12.0 MPa(1740 psi) with an intrusion pressures of 2,5,8,& 10MPa
Temperature = Ambient ($\approx 20^{\circ}\text{C}$)

Nitrogen gas was then injected into the samples at increasing pressures to determine the pressure at which nitrogen gas would be produced. Injection pressure started at 2 MPa and was increased to 5, 8, and 10 MPa, with 10 MPa being the maximum operating pressure of the reservoir. At each pressure, the samples' effective gas permeability was measured.

After an injection pressure of 10 MPa was achieved, the over burden pressure was raised to 12 MPa and the nitrogen gas permeability was re-measured with an injection pressure of 2 MPa and then increased subsequently to 5, 8, & 10 MPa to determine if additional overburden pressure would seal off the samples.

5. TABLES AND FIGURES

Table 1: SP-1 (476.575m) – Flow Measurement Data

SAMPLE: **SP-1**
Depth(m): 476.575
Routine at 2 mPa

Porosity(%) 0.23
Permeability(mD) 0.00111

	Intrusion Pressure(Mpa)	Permeability (mD)	Flow Rate (cc/min)
Overburden Pressure @ 10 mPa	2	0.00013	0.0224
	5	0.00017	0.0271
	8	0.00020	0.0280

	Intrusion Pressure(Mpa)	Permeability (mD)	Flow Rate (cc/min)
Overburden Pressure @ 12 mPa	2	0.00011	0.0257
	5	0.00012	0.0276
	8	0.00013	0.0285
	10	0.00017	0.0291

Table 2: SP-2 (476.625m) – Flow Measurement Data

SAMPLE: **SP-2**
Depth(m): 476.625

Routine at 2 mPa

Porosity(%) 0.50
Permeability(mD) 0.00021

	Intrusion Pressure(Mpa)	Permeability (mD)	Flow Rate (cc/min)
Overburden Pressure @ 10 mPa	2	0.000038	0.0101
	5	0.000043	0.0112
	8	0.000052	0.0126

	Intrusion Pressure(Mpa)	Permeability (mD)	Flow Rate (cc/min)
Overburden Pressure @ 12 mPa	2	0.000034	0.0162
	5	0.000044	0.0176
	8	0.000049	0.0208
	10	0.000054	0.0257

Table 3: SP-3 (476.835m) – Flow Measurement Data

SAMPLE: **SP-3**
Depth(m): 476.835

Routine at 2 mPa

Porosity(%) 1.25
Permeability(mD) 0.02661

	Intrusion Pressure(Mpa)	Permeability (mD)	Flow Rate (cc/min)
Overburden Pressure @ 10 mPa	2	0.0091	0.0933
	5	0.0123	0.1534
	8	0.0144	0.1531

	Intrusion Pressure(Mpa)	Permeability (mD)	Flow Rate (cc/min)
Overburden Pressure @ 12 mPa	2	0.0087	0.1677
	5	0.0094	0.1681
	8	0.0099	0.1686
	10	0.0125	0.1694

Figure 1a: SP-1 (476.575m)- Permeability Vs. Intrusion Pressure @ OB 10mPa

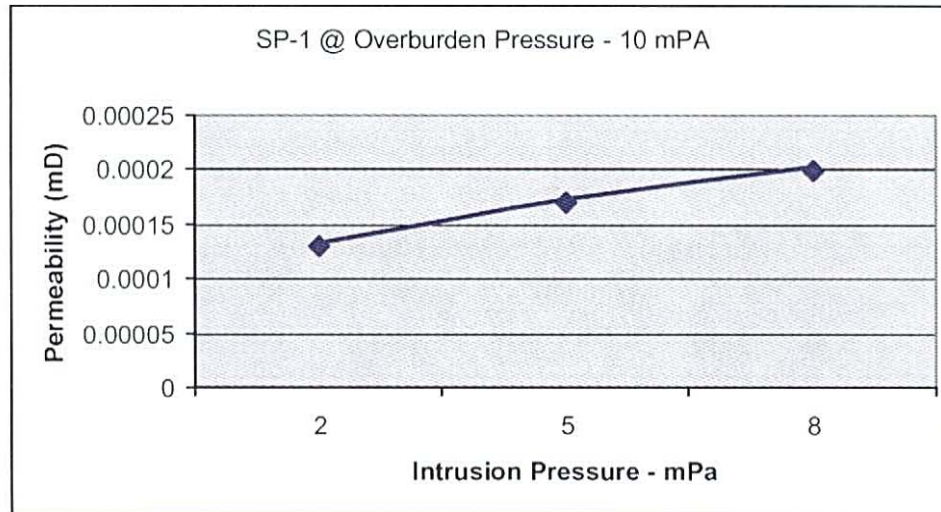


Figure 1b: SP-1 (476.575m)- Permeability Vs. Intrusion Pressure @ OB 12mPa

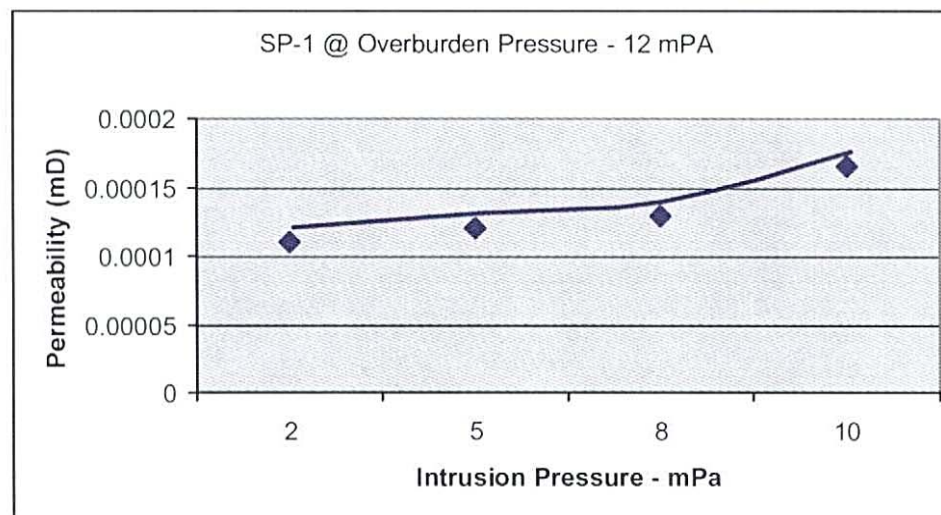


Figure 1c: SP-1 (476.575m)- Flow Rate Vs. Intrusion Pressure @ OB 10mPa

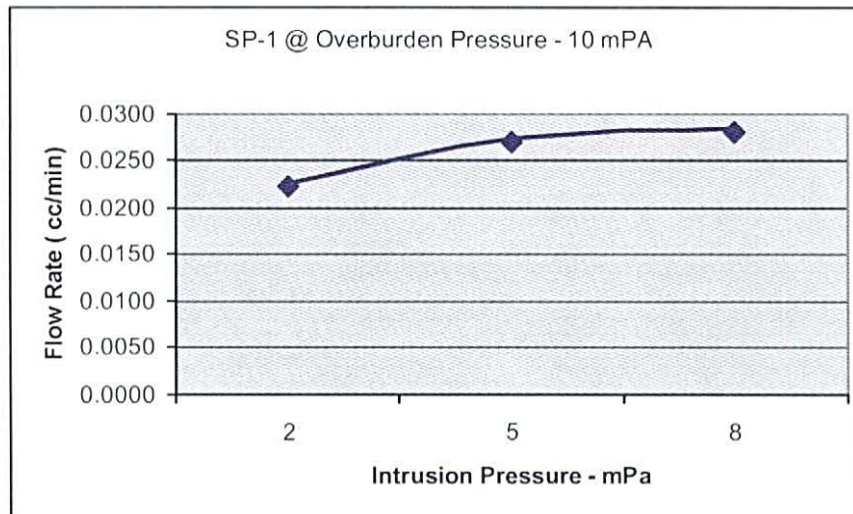


Figure 1d: SP-1 (476.575m)- Flow Rate Vs. Intrusion Pressure @ OB 12mPa

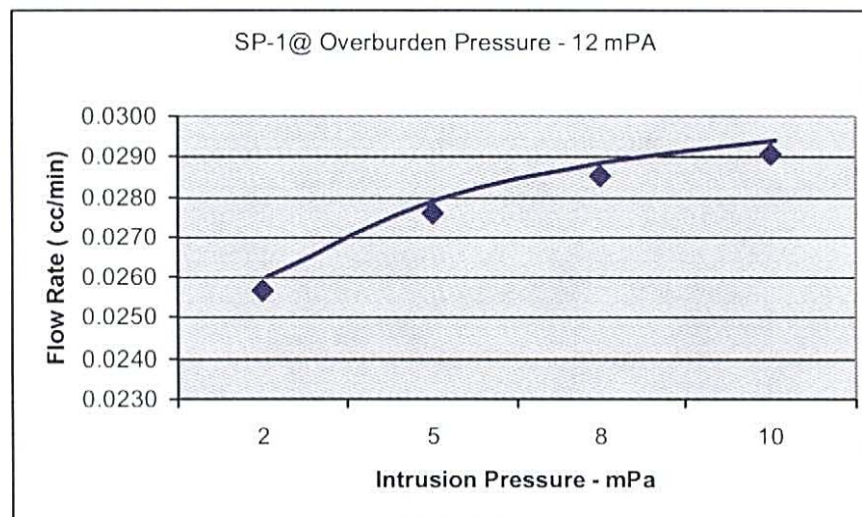


Figure 2a: SP-2 (476.625m)- Permeability Vs. Intrusion Pressure @ OB 10mPa

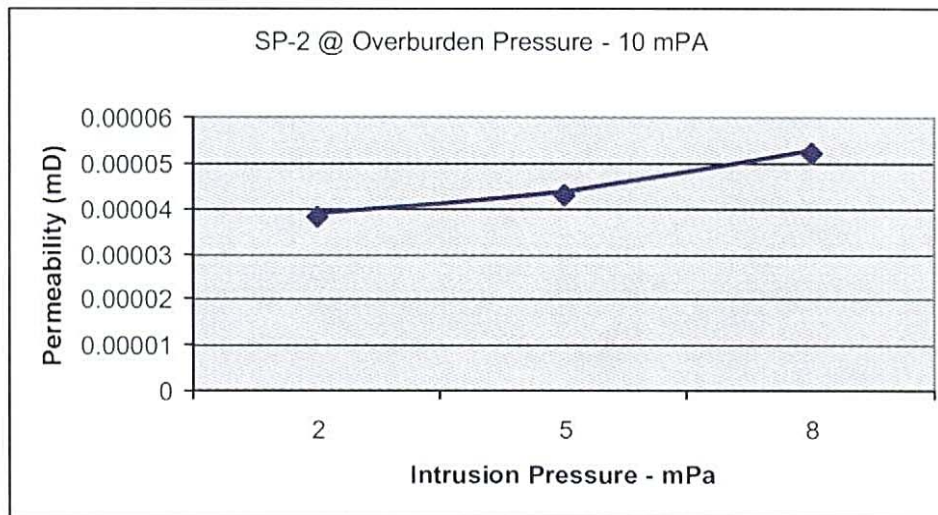


Figure 2b: SP-2 (476.625m)- Permeability Vs. Intrusion Pressure @ OB 12mPa

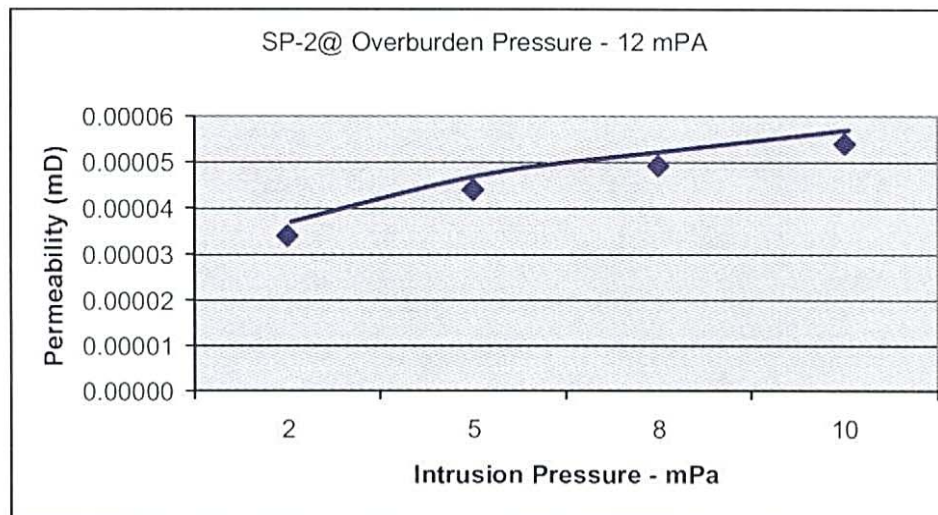


Figure 2c: SP-2 (476.625m)- Flow Rate Vs. Intrusion Pressure @ OB 10mPa

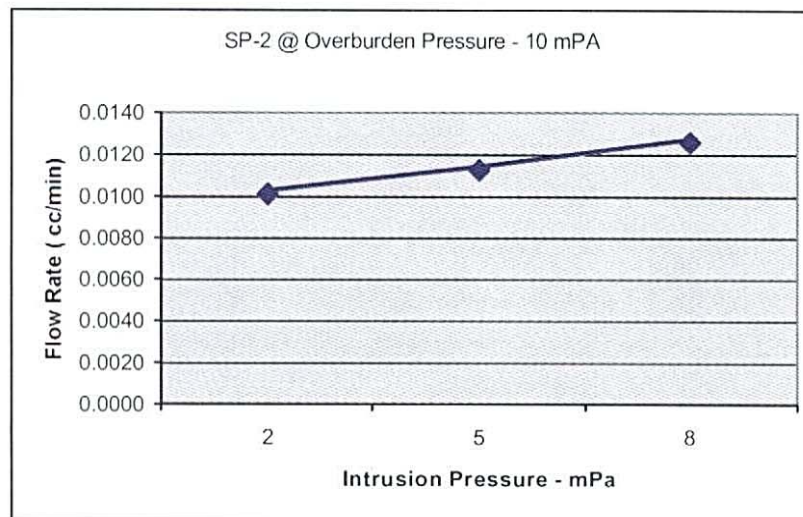


Figure 2d: SP-2 (476.625m)- Flow Rate Vs. Intrusion Pressure @ OB 12mPa

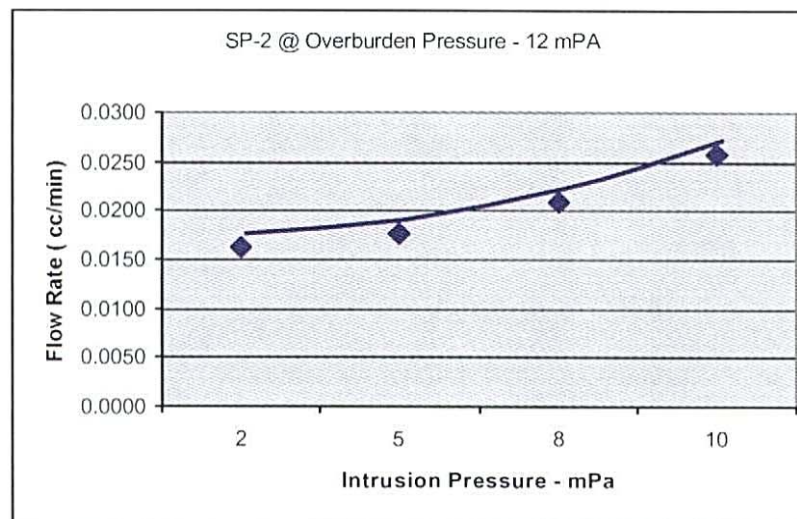


Figure 3a: SP-3 (476.835m)- Permeability Vs. Intrusion Pressure @ OB 10mPa

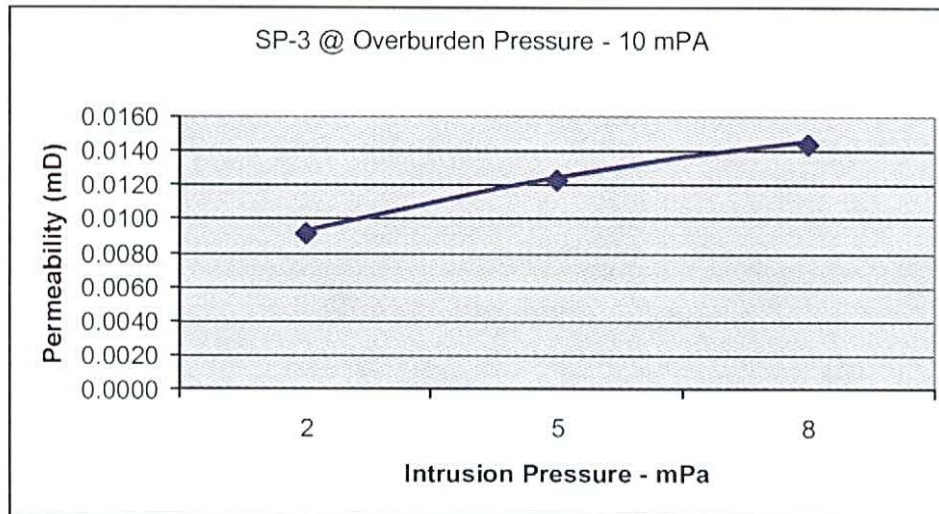


Figure 3b: SP-3 (476.835m)- Permeability Vs. Intrusion Pressure @ OB 12mPa

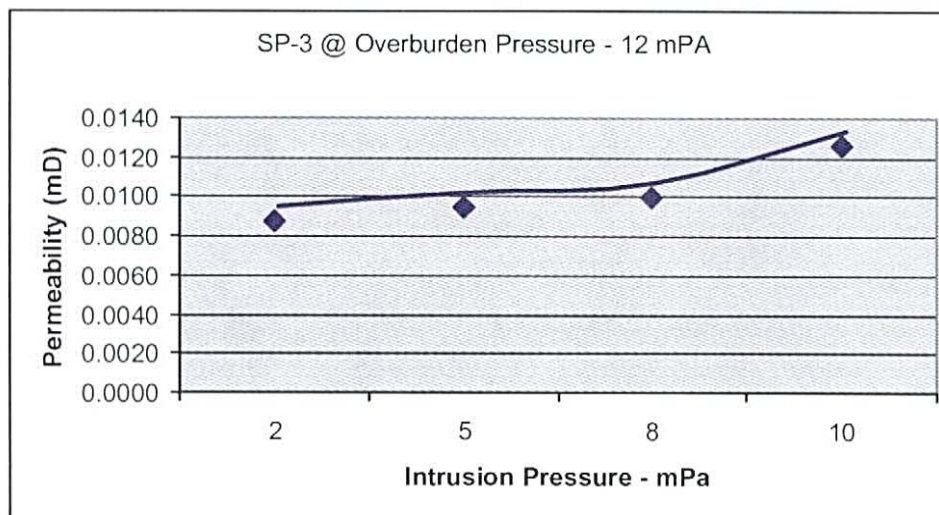


Figure 3c: SP-3 (476.835m)- Flow Rate Vs. Intrusion Pressure @ OB 10mPa

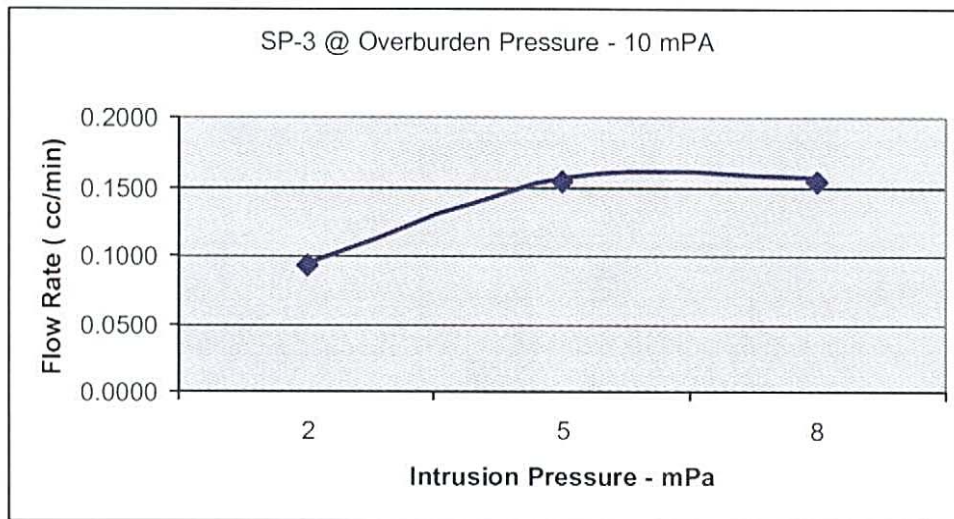
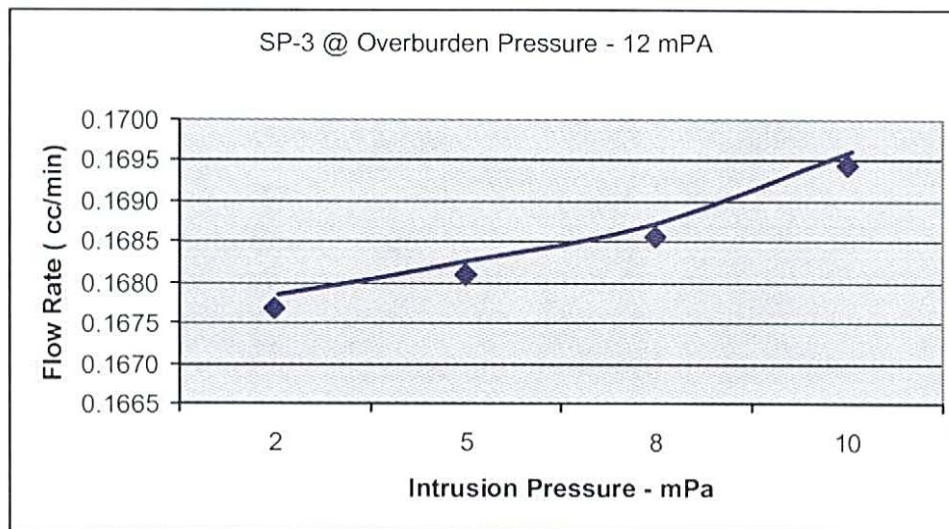


Figure 3d: SP-3 (476.835m)- Flow Rate Vs. Intrusion Pressure @ OB 12mPa

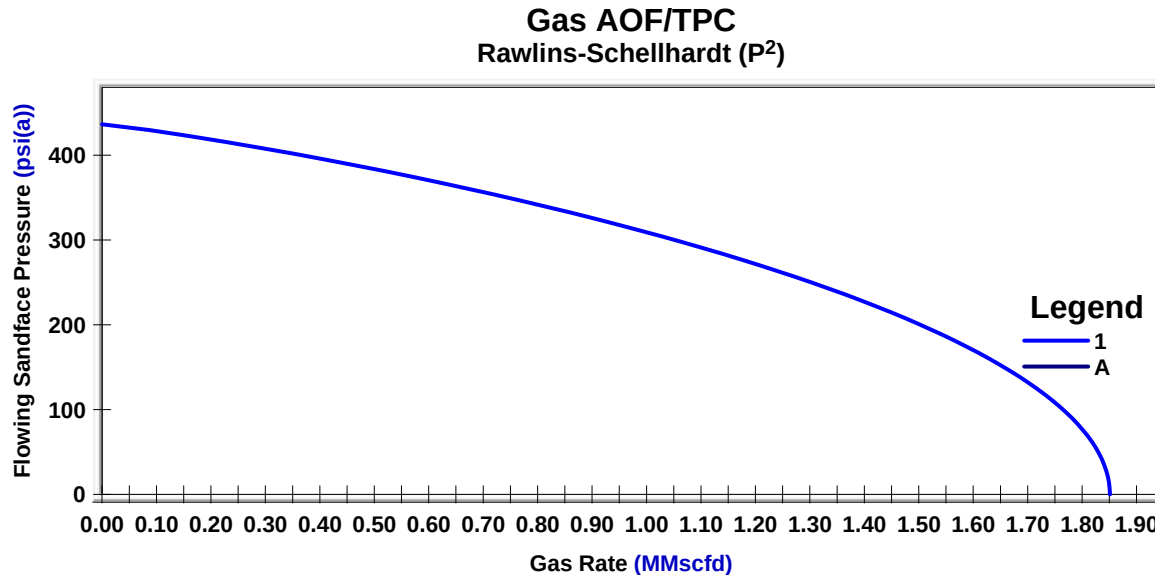


Stanley 4-7-XI Pool Reservoir Engineering Report

Schedule 5 – AOF and Deliverability Plots – Existing Wells

F.A.S.T. VirtuWell
Gas AOF/TPC Analysis
Huron #3 AOF

Pressure Loss Correlation: Fanning Gas



Gas AOF Data:

Absolute Open Flow Data				
AOF	Reservoir Press	C	n	AOF
	psi(a)	MMscfd/(psi ²) ⁿ		MMscfd
1	436.4	3.9816e-05	0.884	1.851

Gas TPC Data:

Tubing Performance Curve Data				
TPC	WH Press	CGR/OGR	WGR	Flow Path
	psi(a)	bbl/MMscf	bbl/MMscf	
A				Casing
B				Tubing
C				Tubing
D				Tubing

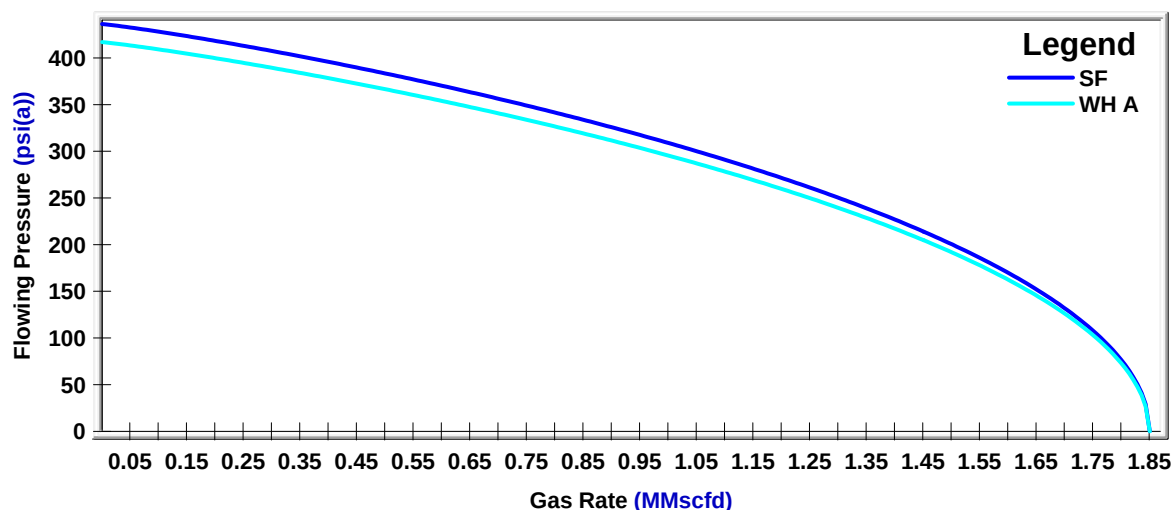
Critical Liquid Lift:

Gas AOF/TPC Results Data					
TPC	Turner Vel (EOT)	Min Gas Rate (EOT)	Turner Vel (WH)	Actual Vel (WH)	Erosion Vel (WH)
	ft/s	MMscfd	ft/s	ft/s	ft/s

F.A.S.T. VirtuWell
SF/WH Analysis
Huron #3 AOF

Pressure Loss Correlation: Fanning Gas

Sandface/Wellhead Deliverability
Huron #3 AOF



Sandface/Wellhead AOF:

Pressure Data				
	Shut-in Press	n	AOF	Flowpath
	psi(a)		MMscfd	
Sandface	436.4	0.884	1.851	
Wellhead A	417.0	0.881	1.850	Casing
Wellhead B				Tubing
Wellhead C				Tubing
Wellhead D				Tubing

Flow Test Results:

Test Data		
Gas Flowrate:		MMscfd
WH Pressure:		psi(a)
SF Pressure:		psi(a)

Wellbore Fluids:

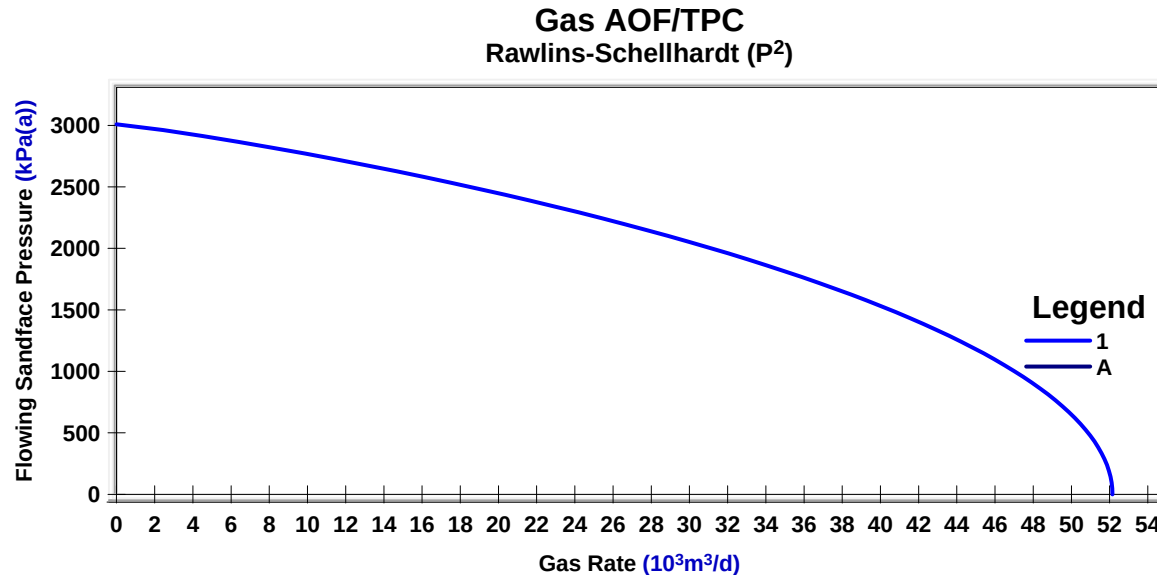
Fluid Data		
OGR:		bbl/MMscf
CGR:		bbl/MMscf
WGR:		bbl/MMscf

Sandface Pressure Calculator:

Sandface Calculations Data				
	Test Rate	Flowing Press	Shut-in Press	n
	MMscfd	psi(a)	psi(a)	
Wellhead	0.905	14.4	417.0	
Sandface	0.905	15.6	436.4	
Wellhead				
Sandface				

F.A.S.T. VirtuWell
Gas AOF/TPC Analysis
Huron #3 AOF

Pressure Loss Correlation: Fanning Gas



Gas AOF Data:

Absolute Open Flow Data				
AOF	Reservoir Press	C	n	AOF
	kPa(a)	$(10^3 \text{m}^3/\text{d})/(\text{kPa}^2)^n$		$10^3 \text{m}^3/\text{d}$
1	3009	3.6932e-05	0.884	52.2

Gas TPC Data:

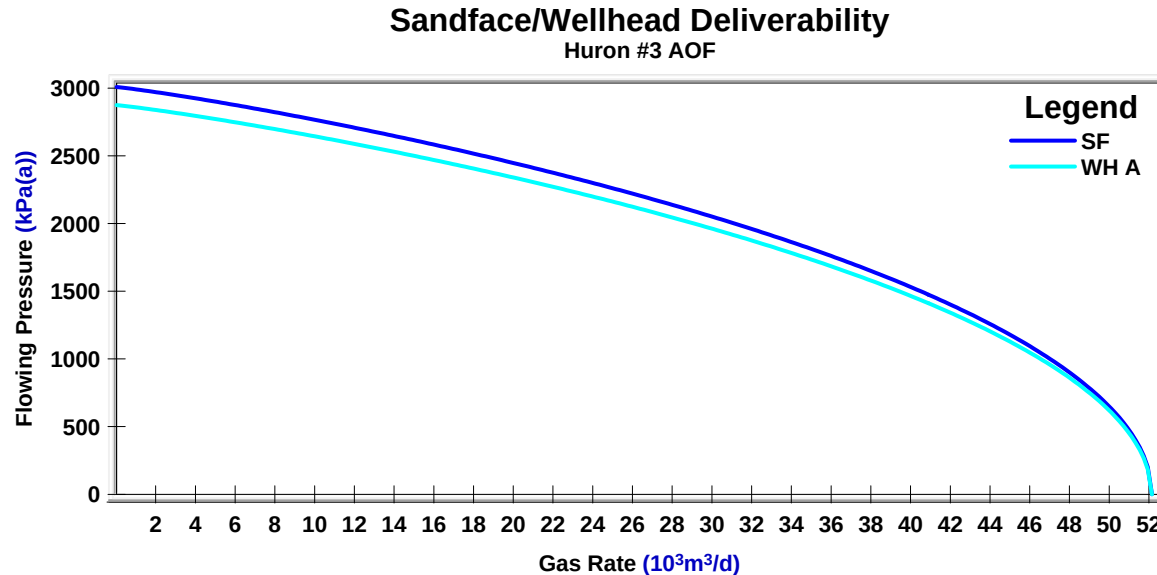
Tubing Performance Curve Data				
TPC	WH Press	CGR/OGR	WGR	Flow Path
	kPa(a)	$\text{m}^3/10^3 \text{m}^3$	$\text{m}^3/10^3 \text{m}^3$	
A				Casing
B				Tubing
C				Tubing
D				Tubing

Critical Liquid Lift:

Gas AOF/TPC Results Data					
TPC	Turner Vel (EOT)	Min Gas Rate (EOT)	Turner Vel (WH)	Actual Vel (WH)	Erosion Vel (WH)
	m/s	$10^3 \text{m}^3/\text{d}$	m/s	m/s	m/s

F.A.S.T. VirtuWell
SF/WH Analysis
Huron #3 AOF

Pressure Loss Correlation: Fanning Gas



Sandface/Wellhead AOF:

Pressure Data				
	Shut-in Press	n	AOF	Flowpath
	kPa(a)		10³m³/d	
Sandface	3009	0.884	52.2	
Wellhead A	2875	0.881	52.1	Casing
Wellhead B				Tubing
Wellhead C				Tubing
Wellhead D				Tubing

Flow Test Results:

Test Data		
Gas Flowrate:		10³m³/d
WH Pressure:		kPa(a)
SF Pressure:		kPa(a)

Wellbore Fluids:

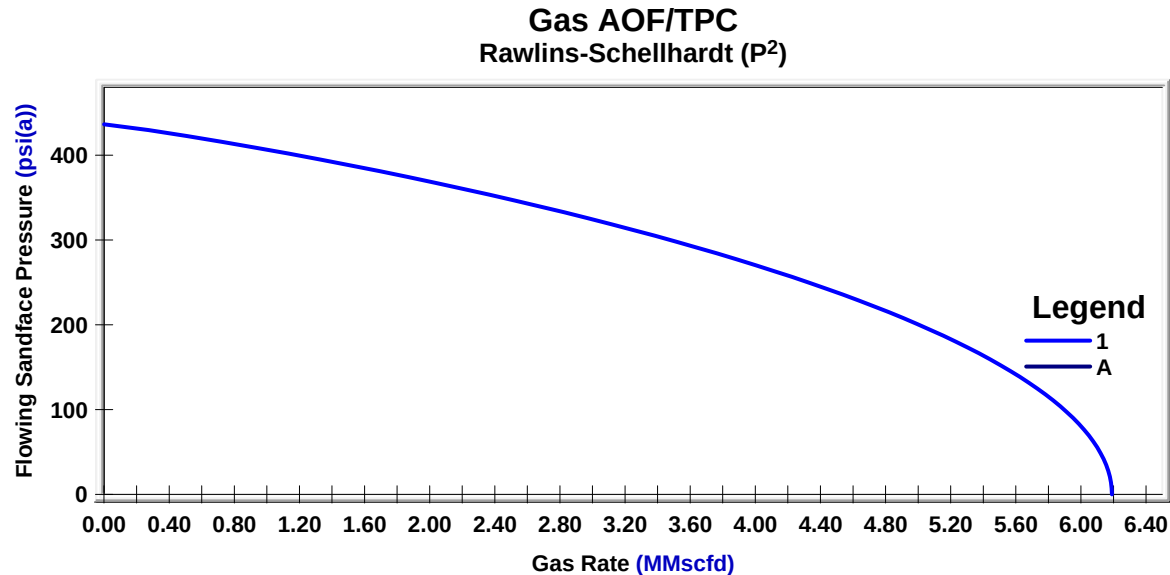
Fluid Data		
OGR:		m³/10³m³
CGR:		m³/10³m³
WGR:		m³/10³m³

Sandface Pressure Calculator:

Sandface Calculations Data				
	Test Rate	Flowing Press	Shut-in Press	n
	10³m³/d	kPa(a)	kPa(a)	
Wellhead	25.5	99	2875	
Sandface	25.5	107	3009	
Wellhead				
Sandface				

F.A.S.T. VirtuWell
Gas AOF/TPC Analysis
Huron #4 AOF

Pressure Loss Correlation: Fanning Gas



Gas AOF Data:

Absolute Open Flow Data				
AOF	Reservoir Press	C	n	AOF
	psi(a)	MMscfd/(psi ²) ⁿ		MMscfd
1	436.4	1.0698e-04	0.902	6.190

Gas TPC Data:

Tubing Performance Curve Data				
TPC	WH Press	CGR/OGR	WGR	Flow Path
	psi(a)	bbl/MMscf	bbl/MMscf	
A				Casing
B				Tubing
C				Tubing
D				Tubing

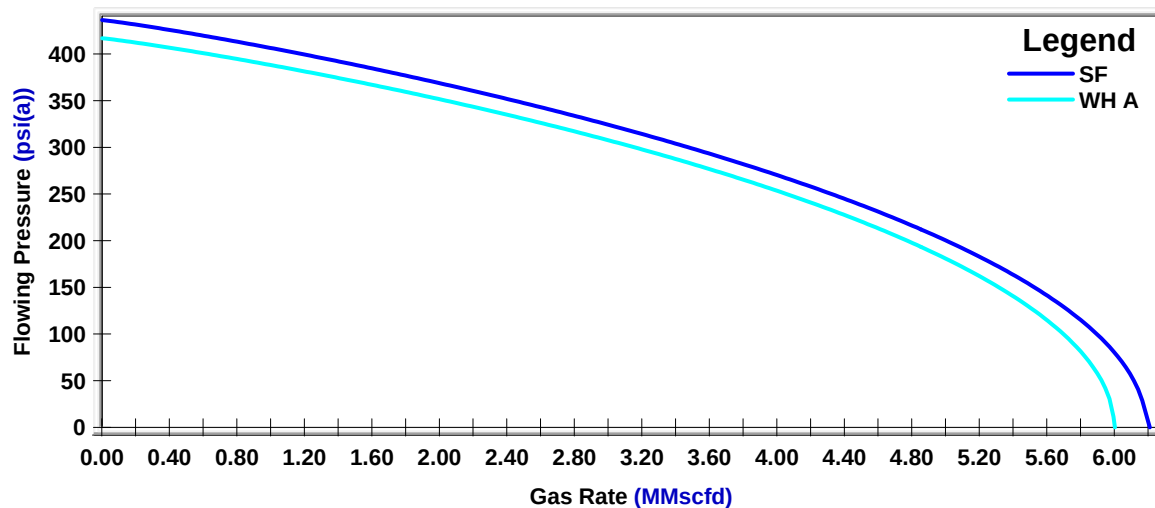
Critical Liquid Lift:

Gas AOF/TPC Results Data					
TPC	Turner Vel (EOT)	Min Gas Rate (EOT)	Turner Vel (WH)	Actual Vel (WH)	Erosion Vel (WH)
	ft/s	MMscfd	ft/s	ft/s	ft/s

F.A.S.T. VirtuWell
SF/WH Analysis
Huron #4 AOF

Pressure Loss Correlation: Fanning Gas

Sandface/Wellhead Deliverability
Huron #4 AOF



Sandface/Wellhead AOF:

Pressure Data				
	Shut-in Press	n	AOF	Flowpath
	psi(a)		MMscfd	
Sandface	436.4	0.902	6.190	
Wellhead A	416.9	0.881	6.000	Casing
Wellhead B				Tubing
Wellhead C				Tubing
Wellhead D				Tubing

Flow Test Results:

Test Data		
Gas Flowrate:		MMscfd
WH Pressure:		psi(a)
SF Pressure:		psi(a)

Wellbore Fluids:

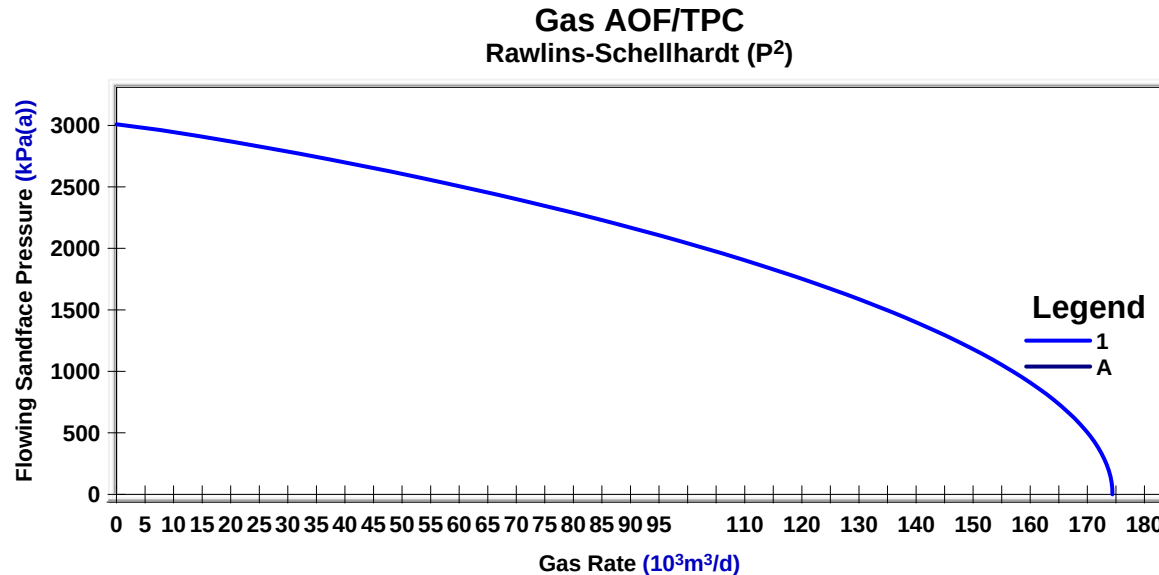
Fluid Data		
OGR:		bbl/MMscf
CGR:		bbl/MMscf
WGR:		bbl/MMscf

Sandface Pressure Calculator:

Sandface Calculations Data				
	Test Rate	Flowing Press	Shut-in Press	n
	MMscfd	psi(a)	psi(a)	
Wellhead	6.013	14.4	417.0	
Sandface	6.013	82.0	436.5	
Wellhead				
Sandface				

F.A.S.T. VirtuWell
Gas AOF/TPC Analysis
Huron #4 AOF

Pressure Loss Correlation: Fanning Gas



Gas AOF Data:

Absolute Open Flow Data				
AOF	Reservoir Press	C	n	AOF
	kPa(a)	$(10^3 \text{m}^3/\text{d})/(\text{kPa}^2)^n$		$10^3 \text{m}^3/\text{d}$
1	3009	9.2569e-05	0.902	174.4

Gas TPC Data:

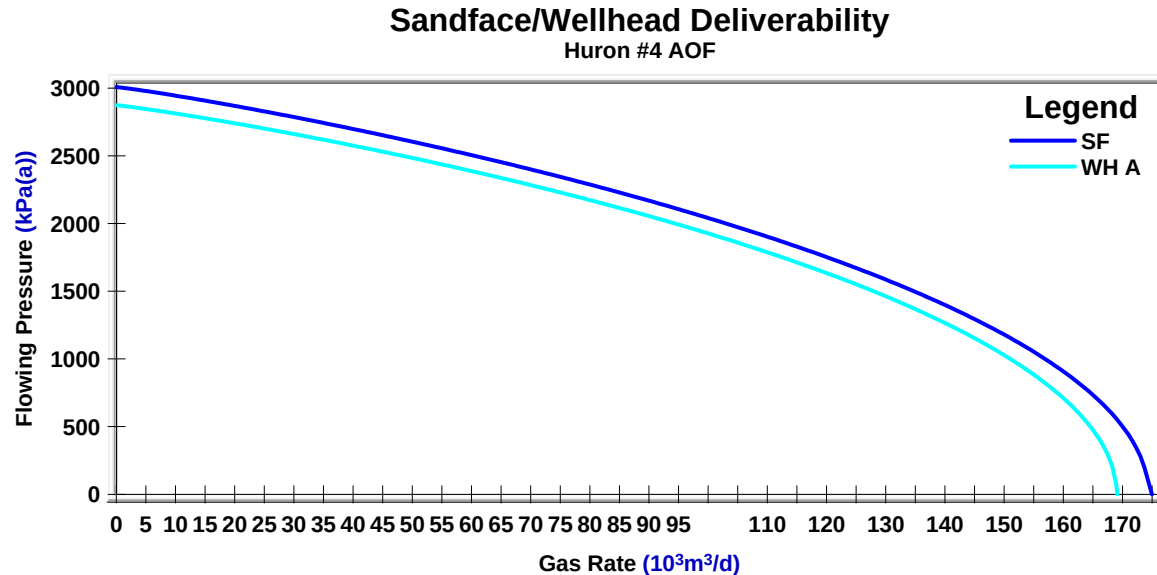
Tubing Performance Curve Data				
TPC	WH Press	CGR/OGR	WGR	Flow Path
	kPa(a)	$\text{m}^3/10^3 \text{m}^3$	$\text{m}^3/10^3 \text{m}^3$	
A				Casing
B				Tubing
C				Tubing
D				Tubing

Critical Liquid Lift:

Gas AOF/TPC Results Data					
TPC	Turner Vel (EOT)	Min Gas Rate (EOT)	Turner Vel (WH)	Actual Vel (WH)	Erosion Vel (WH)
	m/s	$10^3 \text{m}^3/\text{d}$	m/s	m/s	m/s

F.A.S.T. VirtuWell
SF/WH Analysis
Huron #4 AOF

Pressure Loss Correlation: Fanning Gas



Sandface/Wellhead AOF:

Pressure Data				
	Shut-in Press	n	AOF	Flowpath
	kPa(a)		10³m³/d	
Sandface	3009	0.902	174.4	
Wellhead A	2875	0.881	169.0	Casing
Wellhead B				Tubing
Wellhead C				Tubing
Wellhead D				Tubing

Flow Test Results:

Test Data		
Gas Flowrate:		10³m³/d
WH Pressure:		kPa(a)
SF Pressure:		kPa(a)

Wellbore Fluids:

Fluid Data		
OGR:		m³/10³m³
CGR:		m³/10³m³
WGR:		m³/10³m³

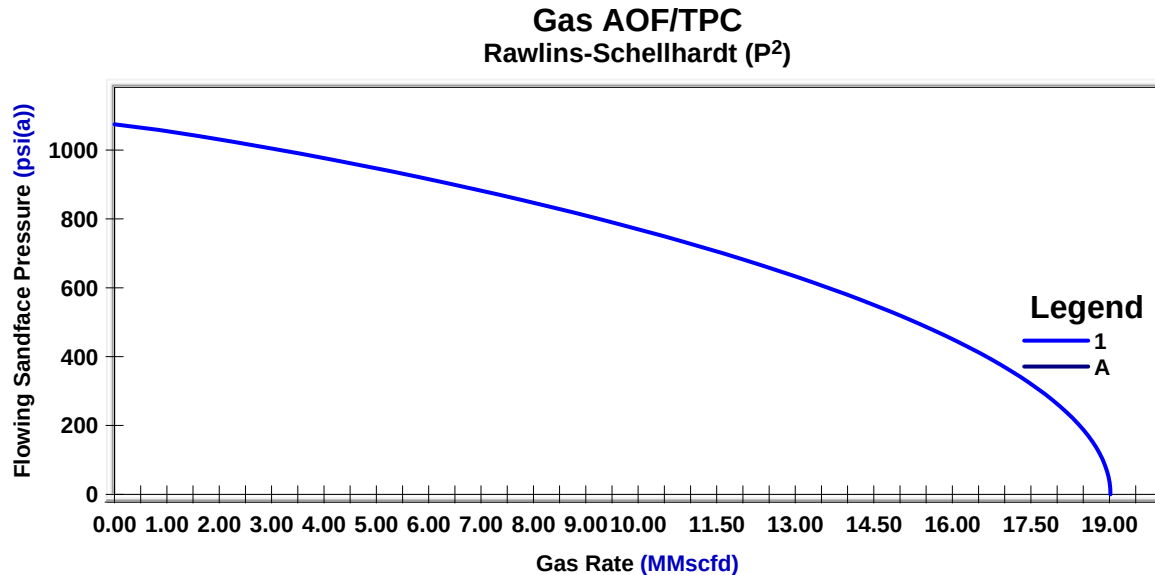
Sandface Pressure Calculator:

Sandface Calculations Data				
	Test Rate	Flowing Press	Shut-in Press	n
	10³m³/d	kPa(a)	kPa(a)	
Wellhead	169.4	99	2875	
Sandface	169.4	566	3009	
Wellhead				
Sandface				

Stanley 4-7-XI Pool Reservoir Engineering Report
Schedule 6 – AOF and Deliverability Plots – Vertical,
Deviated, and Horizontal I/W Wells

F.A.S.T. VirtuWell
Gas AOF/TPC Analysis
Stanley vertical well

Pressure Loss Correlation: Fanning Gas



Gas AOF Data:

Absolute Open Flow Data				
AOF	Reservoir Press	C	n	AOF
	psi(a)	MMscfd/(psi ²) ⁿ		MMscfd
1	1075.0	7.3300e-05	0.893	19.020

Gas TPC Data:

Tubing Performance Curve Data				
TPC	WH Press	CGR/OGR	WGR	Flow Path
	psi(a)	bbl/MMscf	bbl/MMscf	
A				Casing
B				Tubing
C				Tubing
D				Tubing

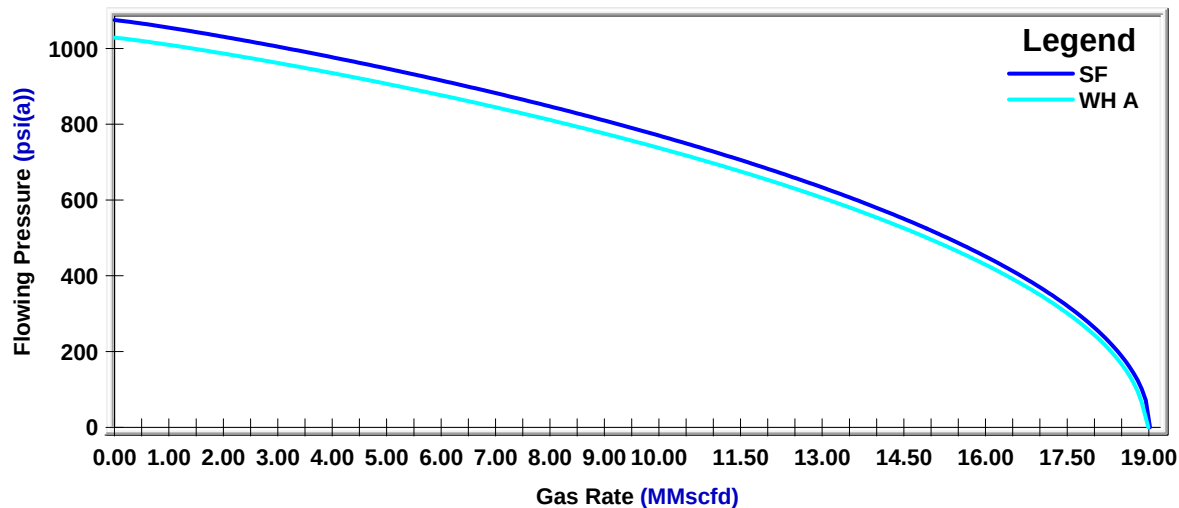
Critical Liquid Lift:

Gas AOF/TPC Results Data					
TPC	Turner Vel (EOT)	Min Gas Rate (EOT)	Turner Vel (WH)	Actual Vel (WH)	Erosion Vel (WH)
	ft/s	MMscfd	ft/s	ft/s	ft/s

F.A.S.T. VirtuWell
SF/WH Analysis
Stanley vertical well

Pressure Loss Correlation: Fanning Gas

Sandface/Wellhead Deliverability
Stanley vertical well



Sandface/Wellhead AOF:

Pressure Data				
	Shut-in Press	n	AOF	Flowpath
	psi(a)		MMscfd	
Sandface	1075.0	0.893	19.020	
Wellhead A	1028.5	0.885	18.938	Casing
Wellhead B				Tubing
Wellhead C				Tubing
Wellhead D				Tubing

Flow Test Results:

Test Data		
Gas Flowrate:		MMscfd
WH Pressure:		psi(a)
SF Pressure:		psi(a)

Wellbore Fluids:

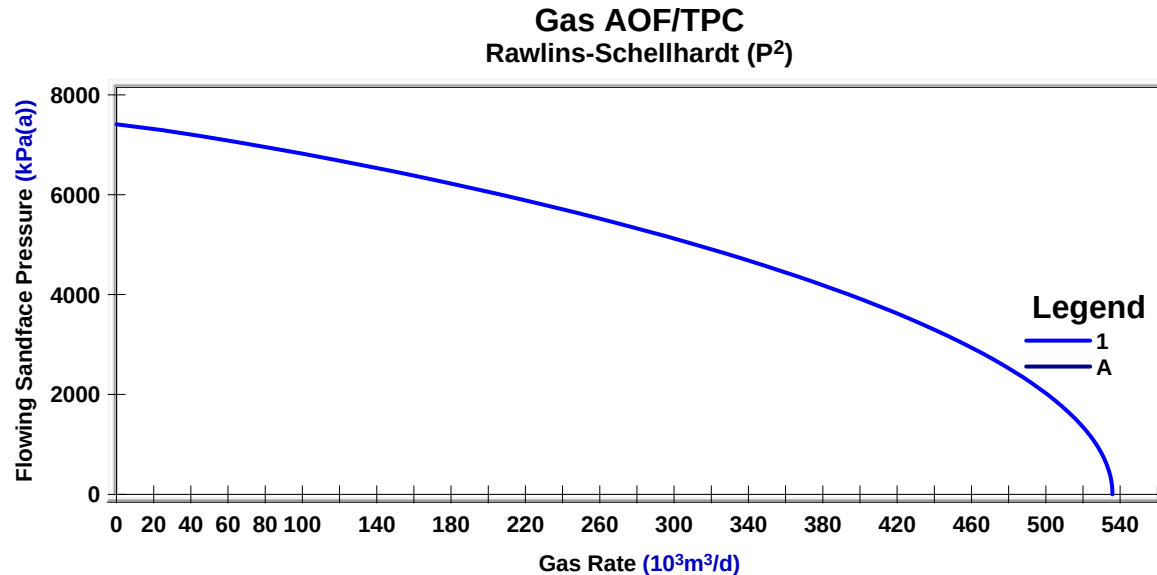
Fluid Data		
OGR:		bbl/MMscf
CGR:		bbl/MMscf
WGR:		bbl/MMscf

Sandface Pressure Calculator:

Sandface Calculations Data				
	Test Rate	Flowing Press	Shut-in Press	n
	MMscfd	psi(a)	psi(a)	
Wellhead	0.000		24.4	
Sandface			25.3	
Wellhead				
Sandface				

F.A.S.T. VirtuWell
Gas AOF/TPC Analysis
Stanley vertical well

Pressure Loss Correlation: Fanning Gas



Gas AOF Data:

Absolute Open Flow Data				
AOF	Reservoir Press	C	n	AOF
	kPa(a)	$(10^3 \text{m}^3/\text{d})/(\text{kPa}^2)^n$		$10^3 \text{m}^3/\text{d}$
1	7412	6.5669e-05	0.893	535.9

Gas TPC Data:

Tubing Performance Curve Data				
TPC	WH Press	CGR/OGR	WGR	Flow Path
	kPa(a)	$\text{m}^3/10^3 \text{m}^3$	$\text{m}^3/10^3 \text{m}^3$	
A				Casing
B				Tubing
C				Tubing
D				Tubing

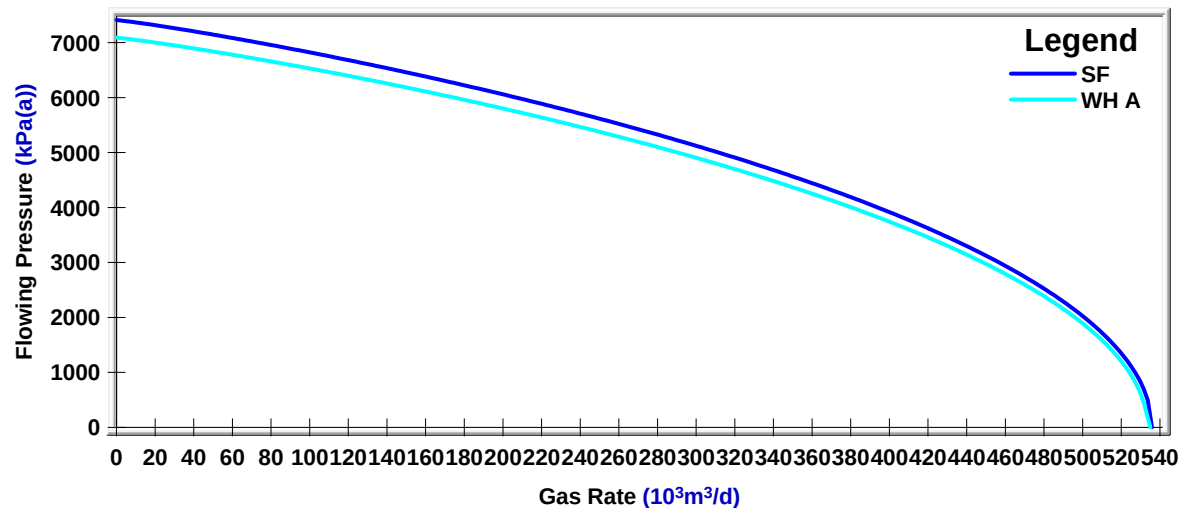
Critical Liquid Lift:

Gas AOF/TPC Results Data					
TPC	Turner Vel (EOT)	Min Gas Rate (EOT)	Turner Vel (WH)	Actual Vel (WH)	Erosion Vel (WH)
	m/s	$10^3 \text{m}^3/\text{d}$	m/s	m/s	m/s

F.A.S.T. VirtuWell
SF/WH Analysis
Stanley vertical well

Pressure Loss Correlation: Fanning Gas

Sandface/Wellhead Deliverability
Stanley vertical well



Sandface/Wellhead AOF:

Pressure Data				
	Shut-in Press	n	AOF	Flowpath
	kPa(a)		10³m³/d	
Sandface	7412	0.893	535.9	
Wellhead A	7091	0.885	533.6	Casing
Wellhead B				Tubing
Wellhead C				Tubing
Wellhead D				Tubing

Flow Test Results:

Test Data		
Gas Flowrate:		10³m³/d
WH Pressure:		kPa(a)
SF Pressure:		kPa(a)

Wellbore Fluids:

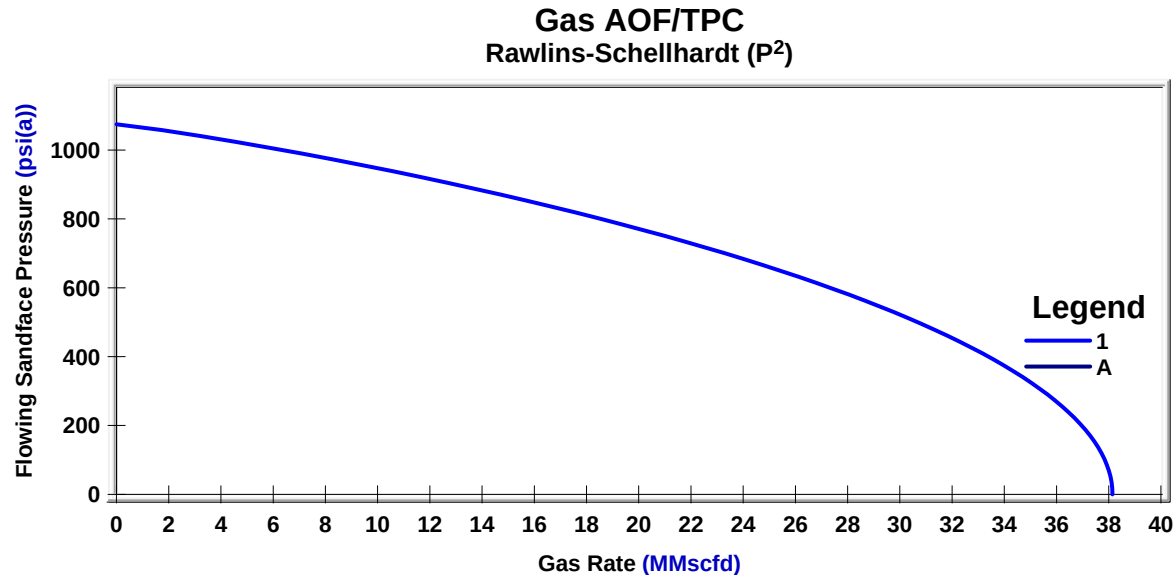
Fluid Data		
OGR:		m³/10³m³
CGR:		m³/10³m³
WGR:		m³/10³m³

Sandface Pressure Calculator:

Sandface Calculations Data				
	Test Rate	Flowing Press	Shut-in Press	n
	10³m³/d	kPa(a)	kPa(a)	
Wellhead	0.0		168	
Sandface			174	
Wellhead				
Sandface				

F.A.S.T. VirtuWell
Gas AOF/TPC Analysis
Stanley deviated well

Pressure Loss Correlation: Fanning Gas



Gas AOF Data:

Absolute Open Flow Data				
AOF	Reservoir Press	C	n	AOF
	psi(a)	MMscfd/(psi ²) ⁿ		MMscfd
1	1075.0	1.4700e-04	0.893	38.143

Gas TPC Data:

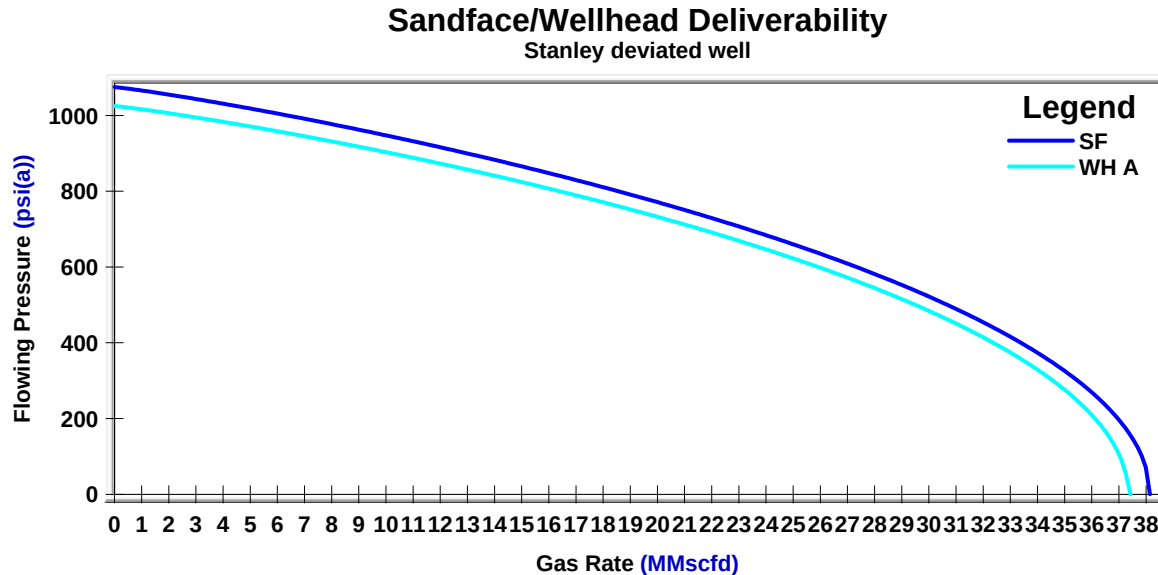
Tubing Performance Curve Data				
TPC	WH Press	CGR/OGR	WGR	Flow Path
	psi(a)	bbl/MMscf	bbl/MMscf	
A				Casing
B				Tubing
C				Tubing
D				Tubing

Critical Liquid Lift:

Gas AOF/TPC Results Data					
TPC	Turner Vel (EOT)	Min Gas Rate (EOT)	Turner Vel (WH)	Actual Vel (WH)	Erosion Vel (WH)
	ft/s	MMscfd	ft/s	ft/s	ft/s

F.A.S.T. VirtuWell
SF/WH Analysis
Stanley deviated well

Pressure Loss Correlation: Fanning Gas



Sandface/Wellhead AOF:

Pressure Data				
	Shut-in Press	n	AOF	Flowpath
	psi(a)		MMscfd	
Sandface	1075.0	0.893	38.143	
Wellhead A	1024.8	0.874	37.347	Casing
Wellhead B				Tubing
Wellhead C				Tubing
Wellhead D				Tubing

Flow Test Results:

Test Data		
Gas Flowrate:		MMscfd
WH Pressure:		psi(a)
SF Pressure:		psi(a)

Wellbore Fluids:

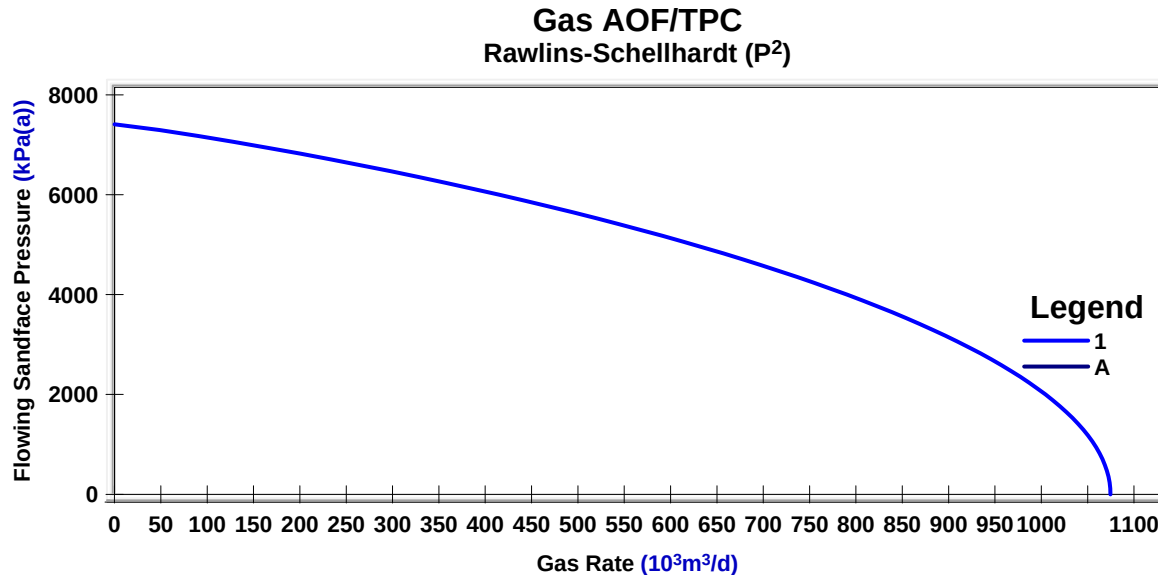
Fluid Data		
OGR:		bbl/MMscf
CGR:		bbl/MMscf
WGR:		bbl/MMscf

Sandface Pressure Calculator:

Sandface Calculations Data				
	Test Rate	Flowing Press	Shut-in Press	n
	MMscfd	psi(a)	psi(a)	
Wellhead				
Sandface				
Wellhead				
Sandface				

F.A.S.T. VirtuWell
Gas AOF/TPC Analysis
Stanley deviated well

Pressure Loss Correlation: Fanning Gas



Gas AOF Data:

Absolute Open Flow Data				
AOF	Reservoir Press	C	n	AOF
	kPa(a)	$(10^3 \text{m}^3/\text{d})/(\text{kPa}^2)^n$		$10^3 \text{m}^3/\text{d}$
1	7412	1.3170e-04	0.893	1074.6

Gas TPC Data:

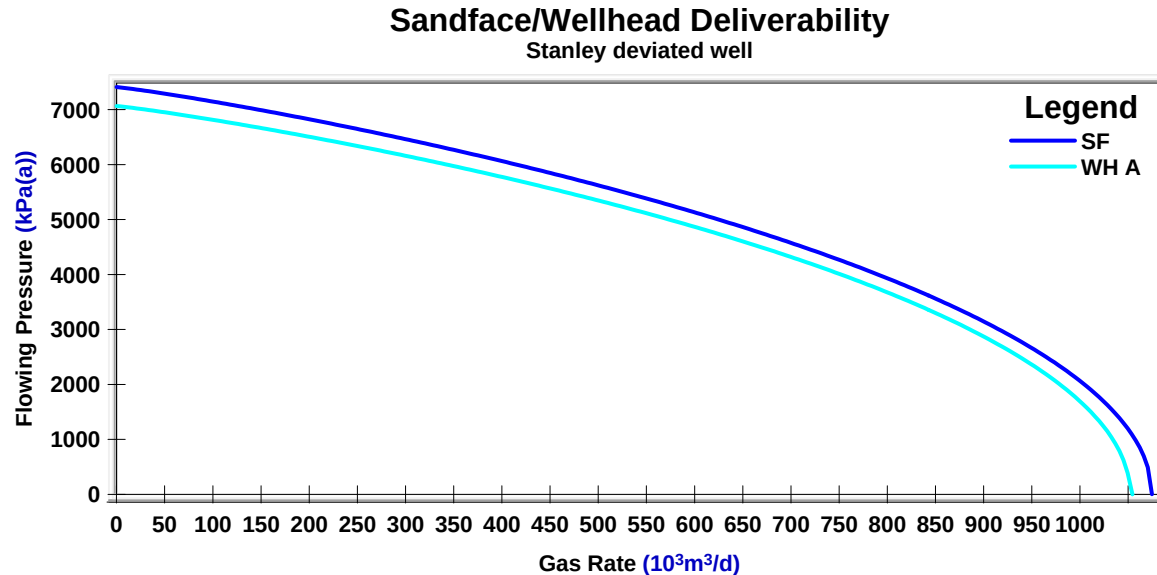
Tubing Performance Curve Data				
TPC	WH Press	CGR/OGR	WGR	Flow Path
	kPa(a)	$\text{m}^3/10^3 \text{m}^3$	$\text{m}^3/10^3 \text{m}^3$	
A				Casing
B				Tubing
C				Tubing
D				Tubing

Critical Liquid Lift:

Gas AOF/TPC Results Data					
TPC	Turner Vel (EOT)	Min Gas Rate (EOT)	Turner Vel (WH)	Actual Vel (WH)	Erosion Vel (WH)
	m/s	$10^3 \text{m}^3/\text{d}$	m/s	m/s	m/s

F.A.S.T. VirtuWell
SF/WH Analysis
Stanley deviated well

Pressure Loss Correlation: Fanning Gas



Sandface/Wellhead AOF:

Pressure Data				
	Shut-in Press	n	AOF	Flowpath
	kPa(a)		10³m³/d	
Sandface	7412	0.893	1074.6	
Wellhead A	7066	0.874	1052.2	Casing
Wellhead B				Tubing
Wellhead C				Tubing
Wellhead D				Tubing

Flow Test Results:

Test Data		
Gas Flowrate:		10³m³/d
WH Pressure:		kPa(a)
SF Pressure:		kPa(a)

Wellbore Fluids:

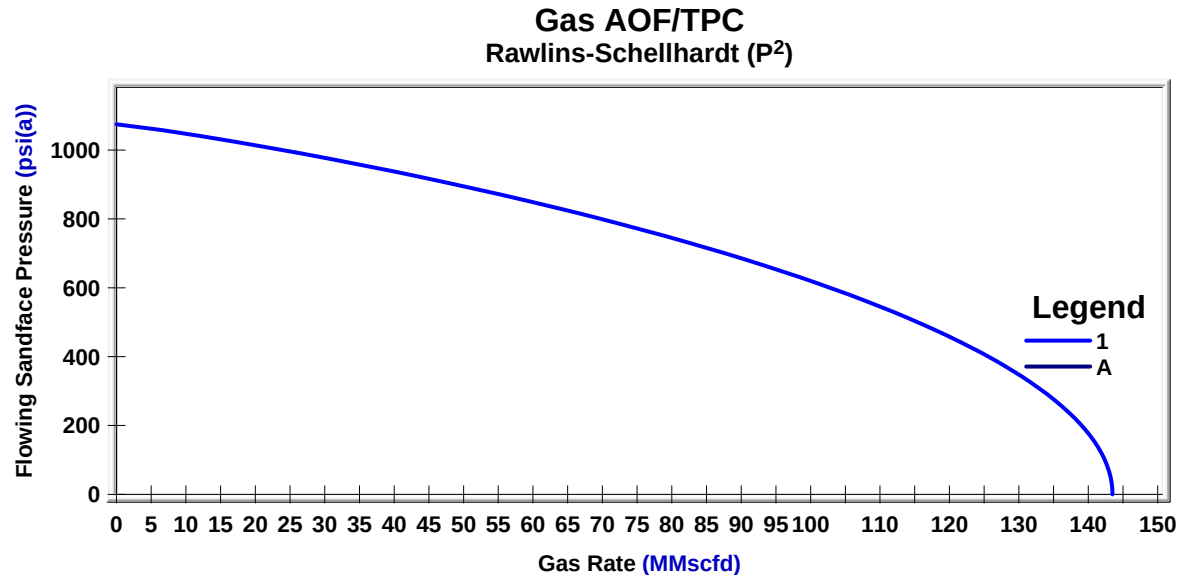
Fluid Data		
OGR:		m³/10³m³
CGR:		m³/10³m³
WGR:		m³/10³m³

Sandface Pressure Calculator:

Sandface Calculations Data				
	Test Rate	Flowing Press	Shut-in Press	n
	10³m³/d	kPa(a)	kPa(a)	
Wellhead				
Sandface				
Wellhead				
Sandface				

F.A.S.T. VirtuWell
Gas AOF/TPC Analysis
Stanley horizontal well

Pressure Loss Correlation: Fanning Gas



Gas AOF Data:

Absolute Open Flow Data				
AOF	Reservoir Press	C	n	AOF
	psi(a)	MMscfd/(psi ²) ⁿ		MMscfd
1	1075.0	5.5300e-04	0.893	143.490

Gas TPC Data:

Tubing Performance Curve Data				
TPC	WH Press	CGR/OGR	WGR	Flow Path
	psi(a)	bbl/MMscf	bbl/MMscf	
A				Casing
B				Tubing
C				Tubing
D				Tubing

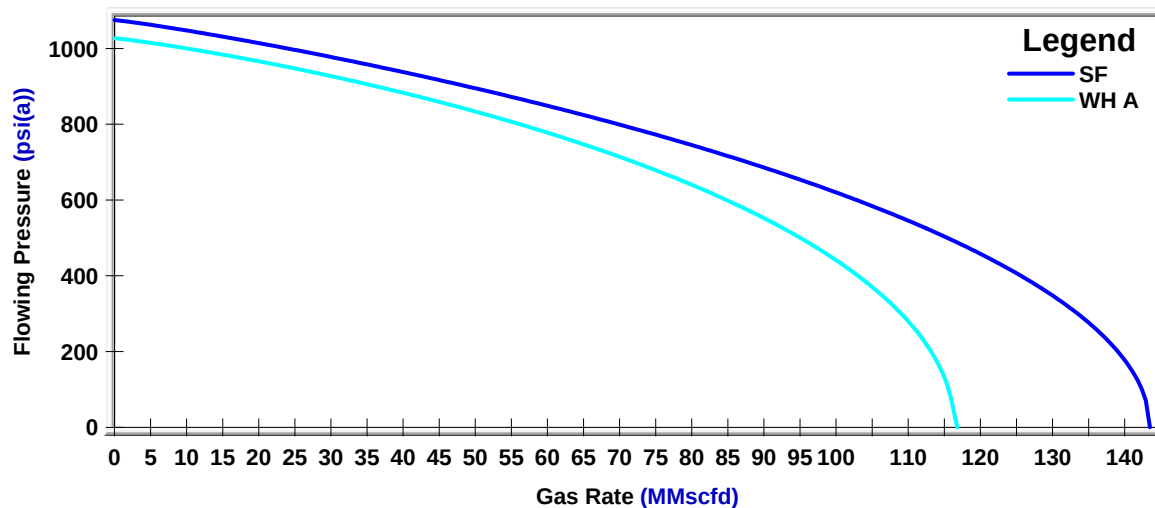
Critical Liquid Lift:

Gas AOF/TPC Results Data					
TPC	Turner Vel (EOT)	Min Gas Rate (EOT)	Turner Vel (WH)	Actual Vel (WH)	Erosion Vel (WH)
	ft/s	MMscfd	ft/s	ft/s	ft/s

F.A.S.T. VirtuWell
SF/WH Analysis
Stanley horizontal well

Pressure Loss Correlation: Fanning Gas

Sandface/Wellhead Deliverability
Stanley horizontal well



Sandface/Wellhead AOF:

Pressure Data				
	Shut-in Press	n	AOF	Flowpath
	psi(a)		MMscfd	
Sandface	1075.0	0.893	143.490	
Wellhead A	1026.9	0.779	116.508	Casing
Wellhead B				Tubing
Wellhead C				Tubing
Wellhead D				Tubing

Flow Test Results:

Test Data		
Gas Flowrate:		MMscfd
WH Pressure:		psi(a)
SF Pressure:		psi(a)

Wellbore Fluids:

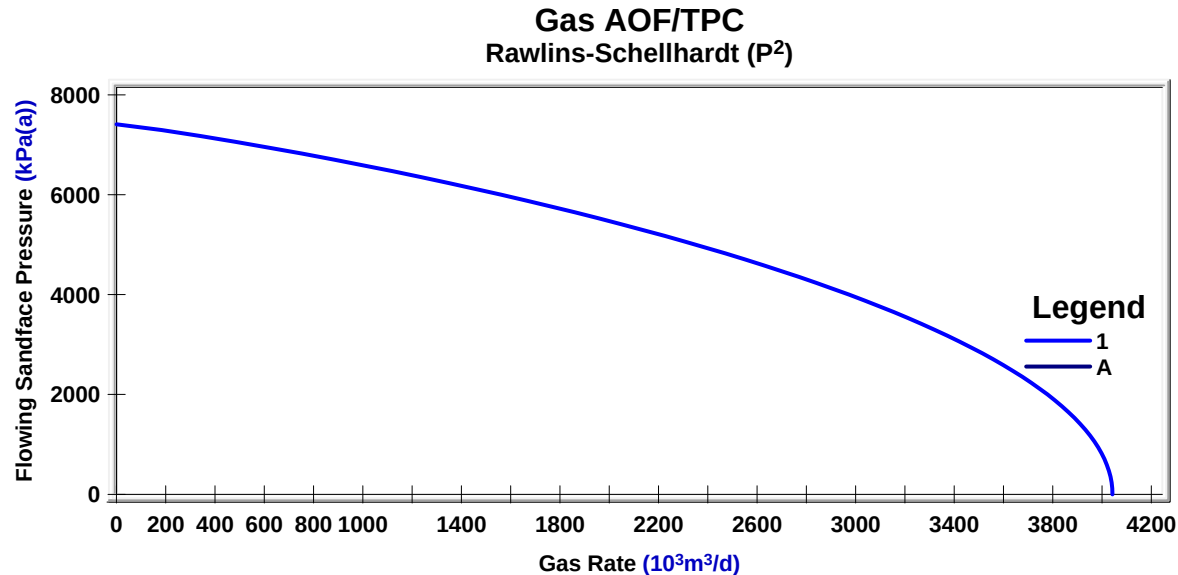
Fluid Data		
OGR:		bbl/MMscf
CGR:		bbl/MMscf
WGR:		bbl/MMscf

Sandface Pressure Calculator:

Sandface Calculations Data				
	Test Rate	Flowing Press	Shut-in Press	n
	MMscfd	psi(a)	psi(a)	
Wellhead				
Sandface				
Wellhead				
Sandface				

F.A.S.T. VirtuWell
Gas AOF/TPC Analysis
Stanley horizontal well

Pressure Loss Correlation: Fanning Gas



Gas AOF Data:

Absolute Open Flow Data				
AOF	Reservoir Press	C	n	AOF
	kPa(a)	$(10^3 \text{m}^3/\text{d})/(\text{kPa}^2)^n$		$10^3 \text{m}^3/\text{d}$
1	7412	4.9543e-04	0.893	4042.7

Gas TPC Data:

Tubing Performance Curve Data				
TPC	WH Press	CGR/OGR	WGR	Flow Path
	kPa(a)	$\text{m}^3/10^3 \text{m}^3$	$\text{m}^3/10^3 \text{m}^3$	
A				Casing
B				Tubing
C				Tubing
D				Tubing

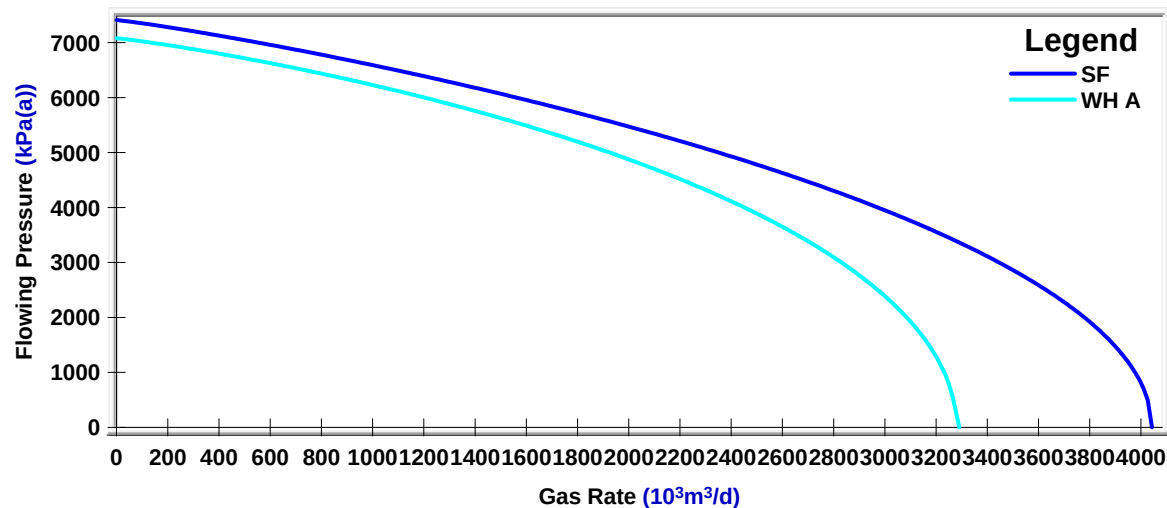
Critical Liquid Lift:

Gas AOF/TPC Results Data					
TPC	Turner Vel (EOT)	Min Gas Rate (EOT)	Turner Vel (WH)	Actual Vel (WH)	Erosion Vel (WH)
	m/s	$10^3 \text{m}^3/\text{d}$	m/s	m/s	m/s

F.A.S.T. VirtuWell
SF/WH Analysis
Stanley horizontal well

Pressure Loss Correlation: Fanning Gas

Sandface/Wellhead Deliverability
Stanley horizontal well



Sandface/Wellhead AOF:

Pressure Data				
	Shut-in Press	n	AOF	Flowpath
	kPa(a)		10³m³/d	
Sandface	7412	0.893	4042.7	
Wellhead A	7081	0.779	3282.5	Casing
Wellhead B				Tubing
Wellhead C				Tubing
Wellhead D				Tubing

Flow Test Results:

Test Data		
Gas Flowrate:		10³m³/d
WH Pressure:		kPa(a)
SF Pressure:		kPa(a)

Wellbore Fluids:

Fluid Data		
OGR:		m³/10³m³
CGR:		m³/10³m³
WGR:		m³/10³m³

Sandface Pressure Calculator:

Sandface Calculations Data				
	Test Rate	Flowing Press	Shut-in Press	n
	10³m³/d	kPa(a)	kPa(a)	
Wellhead				
Sandface				
Wellhead				
Sandface				

Assessment of Neighbouring Activities
Stanley 4-7-XI Pool Development

September 2009

Jim McIntosh Petroleum Engineering Ltd.

On behalf of

Tribute Resources Inc. and Bayfield Resources Inc.

<u>Table of Contents:</u>	Page #
Introduction	3
Location	4
Regional Geology	4
Reservoir History	5
Reservoir Features	5
Caprock	6
Existing Wells Penetrating the Storage Zone	7
Existing/Abandoned Wells within 1 km of Storage Zone	8
Subsurface Operations within 5 km of Storage Zone	9
Conclusions and Recommendations	10
 <u>List of Figures:</u>	
Figure 1 – General Location Map	12
Figure 2 – Well Location Map	13
Figure 3 – Map of activities within 5 kilometers of the pool	14
 <u>List of Appendixes:</u>	
Appendix A – Threshold Pressure Testing Report A2 Anhydrite Cap Rock Tribute et al #25: Stanley 3-7-XI	15
Appendix B – Well Information For Wells Within Storage Zone	34
Appendix C – Well Information For Wells Within 1 kilometer of Storage Zone	40

Introduction

This report has been completed to comply with the requirements of Clause 7.2 of standard CAN/CSA Z341.1-06 – Storage of Hydrocarbons in Underground Formations – Reservoir Storage (“CSA Z341.1-06”) and to support an application to the Ontario Energy Board for Authorization to Inject, Store and Remove Gas for the proposed Stanley 4-7-XI Pool Project (the “Project”). Clause 7.2 states:

A thorough evaluation of all subsurface activities and their potential impact on the integrity of the storage facility shall be conducted, including assessment of

a) existing or abandoned wells within a 1 km radius of the subsurface perimeter of the storage zone, including activities such as fracture treatments that took place within the wells;

b) existing operations within a 5 km radius of the proposed storage scheme, including their purpose, mode of operation, and minimum and maximum operating pressures; and

c) the integrity of any existing well that penetrates the storage zone, including casing, cement, and the hydraulic isolation of the storage zone from any overlying porous zones.

Jim McIntosh Petroleum Engineering Ltd. was retained by Tribute Resources Inc. and Bayfield Resources Inc., (“Bayfield Resources”) to prepare an Assessment of Neighbouring Activities for the application to develop the Stanley 4-7-XI Natural Gas Storage Pool (“Stanley Storage Pool”).

Bayfield Resources is developing the Stanley Storage Pool to meet increasing demand for natural gas storage services. The Stanley Storage Pool is located in the geographic township of Stanley, approximately 10 km southeast of Bayfield, Ontario. An NPS 20” transmission pipeline will connect the Stanley Storage Pool to Union Gas Limited’s (“Union”) existing Lobo B compressor station situated in the vicinity of Ivan. A Compressor Station will also be constructed and located in the vicinity of Zurich, Municipality of Bluewater.

Wells and facilities for the Project will be designed, constructed, operated, maintained and abandoned in accordance with the CSA Z341.1-06 and in accordance with the *Oil, Gas and Salt Resources Act*, its Regulations and Provincial Operating Standard.

Location

The Stanley 4-7-XI Guelph pinnacle reef ("the Stanley 4-7-XI Pool") is located in Lots 6, 7, 8, Concessions XI, and XII, Stanley Township, Huron County, Ontario. A general location map is provided as Figure 1.

Regional Geology

The Stanley 4-7-XI Pool lies on the southeast rim of the intracratonic Michigan Basin. The present day Michigan Basin is roughly circular in shape and underlies the Great Lakes region of Canada and the United States. Silurian rocks outcrop around the entire basin. It has been well documented in literature that the Silurian Guelph-Lockport (and their correlatives) carbonate sequence allows for the recognition of three broad depositional belts arranged in a concentric pattern around the Michigan Basin.

This concentric configuration reflects the differential rates of subsidence taking place during deposition of these sediments. The slow rate of subsidence of the stable arches on the periphery of the basin allowed organic activity to spread laterally resulting in buildups of relatively large areal rather than vertical extent. The shelf area underwent moderate to accelerated rates of subsidence. Organic activity formed incipient and pinnacle reefs in order to keep up to the increased rate of subsidence. Subsidence was fastest in the basin centre which was not ideal for reefal development.

Recent work has refined the interpretation as it pertains to southwestern Ontario. Three distinct carbonate platforms were identified. The outer platform ranges up to 40 meters in thickness. The middle platform ranges from 40 to 60 meters in thickness and the inner platform averages 80 meters thick.

Reef development took place on all three platforms. The greatest concentration of pinnacle reefs occurs on the outer platform, however some were discovered on the middle platform. Extensive patch reefs developed on the inner platform, up to 80 meters in height above the surrounding sea floor.

Pinnacle reefs are defined as having a gross reef buildup greater than 50 meters. Incipient reefs have characteristics and distribution similar to pinnacle reefs but are defined as having buildups of less than 50 meters. The Stanley 4-7-XI Pool has an interpreted reef buildup of approximately 105 meters and is therefore classified as a pinnacle reef by this definition.

Reservoir History

The Stanley 4-7-XI Pool was discovered with the drilling of the Huron #3: Stanley 7-XI well in 1982. The discovery well was followed up with a second well, Huron #4: Stanley 3-7-XI in 1983. All production from the pool has been through these two wells. No other wells were drilled into the reef until the Tribute Resources et al #25: Stanley 3-7-XI well was drilled in 2008. The Tribute Resources et al #25 well was drilled to obtain a core of the cap rock for stress analysis, and to be potentially used as an Injection/Withdrawal well for the pool. Both the Huron #3 and Huron #4 wells were evaluated for conversion to observation wells for the pool, but both wells were deemed substandard and are being plugged in accordance with CSA Z341.1-06 standards.

Reservoir Features

The geological interpretations of the Stanley 4-7-XI Pool are based on the available well data and supported by 2-D and 3-D seismic surveys. Based on structural mapping of the Guelph Formation, the reef buildup is located in the central portion of the outer carbonate platform previously described.

Utilizing geologic mapping and 2-D and 3-D seismic control, the total amount of reef buildup is approximately 105 meters. The area covered by the reef base is estimated to be approximately 71 acres.

No water or oil was encountered in the reservoir during the drilling of any of the reef wells. Log analysis on the Huron #3 open hole logs suggests a connate water saturation similar to or below the 20% saturation that has been used in evaluating similar type gas reservoirs.

Reservoir gas properties are based on samples acquired from the Huron #3 well and analyzed by the former Consumers Gas Company of Toronto. The gas is characterized by a specific gravity of 0.664, Nitrogen content of 6.13%, and Gross Heating Value of 40.01 MJ/m³.

A porosity value of 5.0 to 20.4% was calculated based on analysis of the available open-hole geophysical logs. An average porosity of 8.9% is used in any engineering computations. The value compares favourably with the 7.7% average porosity value for the gas pay zones of storage reefs in Ontario, based on a statistical review of 29 core analyses from 18 storage reefs.

Cap Rock

The cap rock of anhydrite overlying pinnacle reef reservoirs provides an excellent seal against vertical migration of hydrocarbons. The Stanley Reef A2 Anhydrite cap thickness varies from 1.2 meters in Huron #4, to 4.8 meters in Huron #3, to 7.5 meters in Tribute Resources et al #25. Cap rock core analysis of the Tribute Resources et al #25 Stanley 3-7-XI well measured low vertical permeabilities ($<.01$ millidarcies) and low porosities ($<1\%$). AGAT Labs in Calgary concluded that the “samples tested would be an effective gas barrier”.

The estimated overburden pressure of the Stanley reef is approximately 10.7 MPa (1560 psi) based on a fracture gradient of 22.6 kPa/m (1 psi/ft). Results of the threshold pressure study also performed by AGAT Labs indicate that when an overburden pressure of 10 MPa was applied to the core samples with an intrusion pressure of 2MPa, effective gas permeabilities ranged from 7.1×10^{-4} to 1.38×10^{-1} millidarcies. When increased to an intrusion pressure of 5 MPa, effective permeabilities ranged from 5.20×10^{-4} to 1.50×10^{-1} millidarcies. And with intrusions pressure increased to 8 MPa effective permeabilities were found to range from 4.30×10^{-4} to 1.12×10^{-1} millidarcies.

Results of core analysis and threshold testing indicate that a competent cap rock exists over the Stanley Reef that is similar to the cap rock over other currently operating underground gas storage facilities in Ontario. The core analysis also confirms that the cap rock permeability remains very low at simulated pressures greater than the proposed delta pressure for the Stanley 4-7-XI Pool of 7450 kPa (1080 psia). The threshold pressure testing report prepared by AGAT Laboratories is included in Appendix A.

The Stanley Reef is sealed laterally by tight A-1 Carbonate limestones and dolomites. Off- reef wells nearby the Stanley Reef indicate no gas, oil or water shows within the A-1 Carbonate verifying a good lateral seal.

Existing Wellbores Penetrating the Storage Zone

All existing wellbores penetrating the proposed Storage Zone are evaluated to ensure that they comply with CSA Z341-06 standards. The Huron #3 well was completed with casing to total depth and the Guelph accessed through perforations. The cement/perforating damage on the well necessitated a small acid frac as part of the completion. The Huron #4 well was completed as an open hole Guelph completion and did not require stimulation. The Tribute Resources et al #25 well was drilled during 2008 and has not been stimulated. A map showing the location of wells in the Stanley Storage proposal is included in Figure 2.

Huron #3 – Stanley 7-XI

The Huron #3 well was evaluated to determine suitability as an observation well for the Stanley 4-7-XI Pool, but the well was deemed substandard. Huron #3 has been plugged and abandoned in compliance with the CSA Z341-06 standards. A plugging record and wellbore schematic of the Huron #3 well showing the location of the abandonment plugs is attached in Appendix B.

Huron #4 – Stanley 3-7-XI

The Huron #4 well was evaluated to determine its suitability as an observation well for the Stanley 4-7-XI Pool and deemed substandard. The Huron #4 well is in the process of being plugged. A wellbore schematic of the Huron #4 well once it is plugged and abandoned is included in Appendix B. As work continues to convert the Stanley 4-7-XI Pool to a gas storage pool, this well will be plugged in accordance with CSA Z341-06 standards.

Tribute Resources et al #25 – Stanley 3-7-XI

The Tribute et al #25 well was drilled to obtain a core of the cap rock for stress analysis, and to be potentially used as an Injection/Withdrawal well for the pool. The well was drilled and cased in accordance with CSA Z341-06 standards. Appendix B shows the wellbore schematic of the Tribute Resources et al #25 well.

Existing/Abandoned Wells within 1 km of Storage Zone

There are three wells within 1 km of the subsurface perimeter of the storage zone, and several within 5 km. The three wells within a 1 km radius are Imperial 497-McKinley #1, Bluewater Martin #1, and Orford Res et al #1. A map showing the location of the above mentioned wells along with the proposed Designated Storage Area (“DSA”) is included as Figure 2.

Imperial 497 - McKinley #1 - Stanley 7-XI

The Imperial 497 well was drilled by Imperial Oil in late 1954 and early 1955. The well was drilled into the Cabot Head with a TD of 623mRF (2044 ft) and was plugged and abandoned as an unsuccessful Guelph test. No shows were reported through the Salina or Guelph sections of the well. The well was plugged with lead plugs, a wooden plug, and clay as illustrated on the enclosed plugging record and well schematic, Appendix C. Based on the Stanley 3-D seismic survey and well card information, this well has a regional Guelph to Rochester isopach, and did not show any reservoir permeability. Although this well was not plugged to CSA Z341-06 standards, with no Guelph shows in this regional well, this plugging technique does not represent a potential cross-flow conduit for the Stanley 4-7-XI Pool.

Bluewater Oil and Gas – Martin #1 – Stanley 7-XII

The Bluewater Martin #1 well was drilled by Bluewater Oil and Gas in 1957. The well was drilled into the Cabot Head with a TD of 606mRF (1989 ft) and was plugged and abandoned as an unsuccessful Guelph test. No shows were reported through the Salina or Guelph sections of the well. The well was plugged with stone and lead plugs, stone, lead plugs and cement, wooden plugs and cement, and clay as illustrated on the enclosed plugging record and well schematic, Appendix C. Based on the Stanley 3-D seismic survey and well card information, this well is off the reef, has a regional Guelph to Rochester isopach, and did not show any reservoir permeability. Although this well was not plugged to CSA Z341-06 standards, with no Guelph shows in this well, this plugging technique does not represent a potential cross-flow conduit for the Stanley 4-7-XI Pool.

Orford Res. et al. #1 – Stanley 3-5-X

The Orford Res. et al #1 well was drilled by PPC Oil and Gas Corp in 1988 as a PreCambrian test, with a TD of 1114.7mRF and was plugged and abandoned as an unsuccessful Guelph/Ordovician test. No shows were reported through the Salina or Guelph sections or the deeper Ordovician sections of the well. The well was plugged with stone and cement as illustrated on the enclosed plugging record and well schematic, Appendix C. Although this well was not plugged to CSA Z341-06 standards, with no Guelph shows in this well, this plugging technique does not represent a potential cross-flow conduit for the Stanley 4-7-XI Pool.

Subsurface Operations within 5km Radius of Storage Zone

All existing operations within a 5 km radius of the proposed storage scheme have been evaluated, including operation, and minimum and maximum operating pressures. There is one natural gas filled reef within a 5km radius of the Stanley Storage proposal, the Zurich pool, as well as a number of plugged and abandoned wells. The Zurich pool is onstream and producing to a local Union Gas distribution line. A map showing the locations of the Stanley Storage proposal and the Zurich pool is included as Figure 1. Figure 3 illustrates the 1 kilometer and 5 kilometer radii around the Stanley 4-7-XI Pool and indicates the plugged and abandoned wells within this area.

Zurich Pool

The Zurich Pool is the only existing subsurface operation within a 5km radius of the Stanley storage scheme. The Zurich Pool produces from a partially salt plugged Guelph reef. There is one active producing well (Ansell Lake Res et al #1: Hay 3 - 23 – XI) and one abandoned producing well (Imperial 461–R. Clausius #1: Hay 22-XI) that were drilled into the Zurich reef that are crest or near crest penetrations. There were also three wells drilled on the reef flanks, Imperial 473–E. Heidman #1: Hay-23-XI, Imperial 506–Geiger #1: Hay-22-XII, and Imperial 494–E. Heidman: Hay-23-XI. The wells within the Zurich pool are not constructed and/or plugged to CSA Z341 storage standards, but the Zurich pool is not connected in any way to the Stanley 4-7-XI Pool and will not be affected once the Stanley 4-7-XI Pool starts active storage operations. The Ansell Lake Res et al #1 is onstream and produces with compression to a local Union Gas distribution line. The

current reservoir pressure in the well is estimated at about 310 kPaa (45 psia) but appears to be being partially repressurized from higher pressure poorly communicating parts of the reef. The Zurich reef is estimated to have a 180 acre foot print. Based on geology and 3-D seismic the reef is sealed on top by between .8 and 3.6 meters of A-2 Anhydrite and laterally by A2 Salt, A1 Carbonate and A1 Anhydrite units which pinch out against the reef flanks.

Plugged and Abandoned wells

A number of other wells have been drilled within the 5 kilometer radius of the Stanley 4-7-XI Pool. With the exception of the Zurich Pool, none of these wells tested commercial quantities of gas from the Guelph zone, and all have been abandoned.

Conclusions and Recommendations

The Stanley 4-7-XI Pool is a closed container that eventually will be protected by an approved DSA. The technical information reviewed, indicates that there is minimal risk regarding the potential migration of natural gas between any known existing or abandoned wells within 1 km, and existing operations within 5 km, of the Stanley 4-7-XI Pool.

The wells and facilities associated with the Stanley Storage Pool will be designed, constructed, operated, maintained and abandoned in accordance with CSA Z341-06 Storage of Hydrocarbons in Underground Formations and in accordance with the *Oil, Gas and Salt Resources Act*, its regulations and Provincial Operating Standards.

A thorough evaluation of all subsurface activities and their potential impact on the integrity of the Stanley 4-7-XI Pool has been completed in accordance with Clause 7.2 of CSA Z341.1-06. None of the existing and abandoned wells within 1 km of the storage zone, other operations within 5 km of the storage zone, or existing wellbores penetrating the storage zone will have any impact on the integrity of the storage facility.

Once operational, it is necessary to monitor the risk elements in order to detect problems early so that they may be remedied with minimal consequence. A regular maintenance program will ensure equipment is in good working condition. This will reduce malfunctions, and ensure that no landowner water wells are impacted by the storage operation. A comprehensive Emergency Response Plan will limit

1 any consequences or effects and prepare the Operator to respond quickly and efficiently. Adequate
2 insurance coverage will protect affected property, persons and livelihoods through compensation in the
3 event of injury as a result of storage operations. With proper procedures and controls, proper programs
4 to monitor and maintain the integrity of the storage wells and the storage pool, and documented
5 programs to periodically sample landowner water wells, the Operator will mitigate the risks as much as
6 practically possible.

7

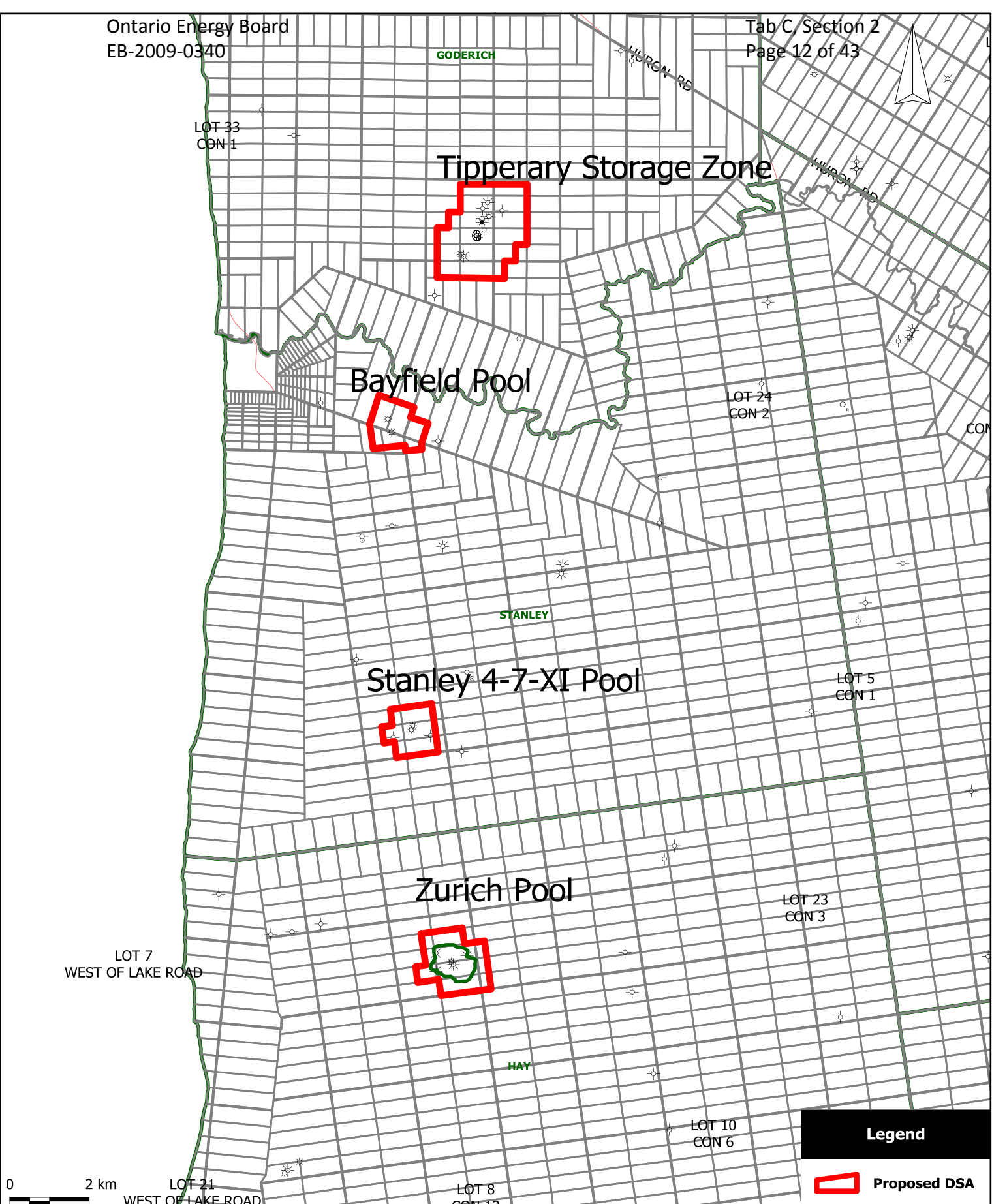
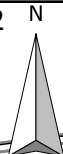


Figure 1.
General Location Map



Huron #2A

LOT 11
CON 11

Centennial

Stanley Storage Zone

Bronson

Goshen

Huron #4

Huron #3

Martin #1

Imperial #497

Staffa

Orford

LOT 5
CON 12

LOT 4
CON 11

LOT 3
CON 12

LOT 3
CON 13

1 km

Legend



Pool Boundary
DSA



Gas Producer



Lost/Incomplete Hole

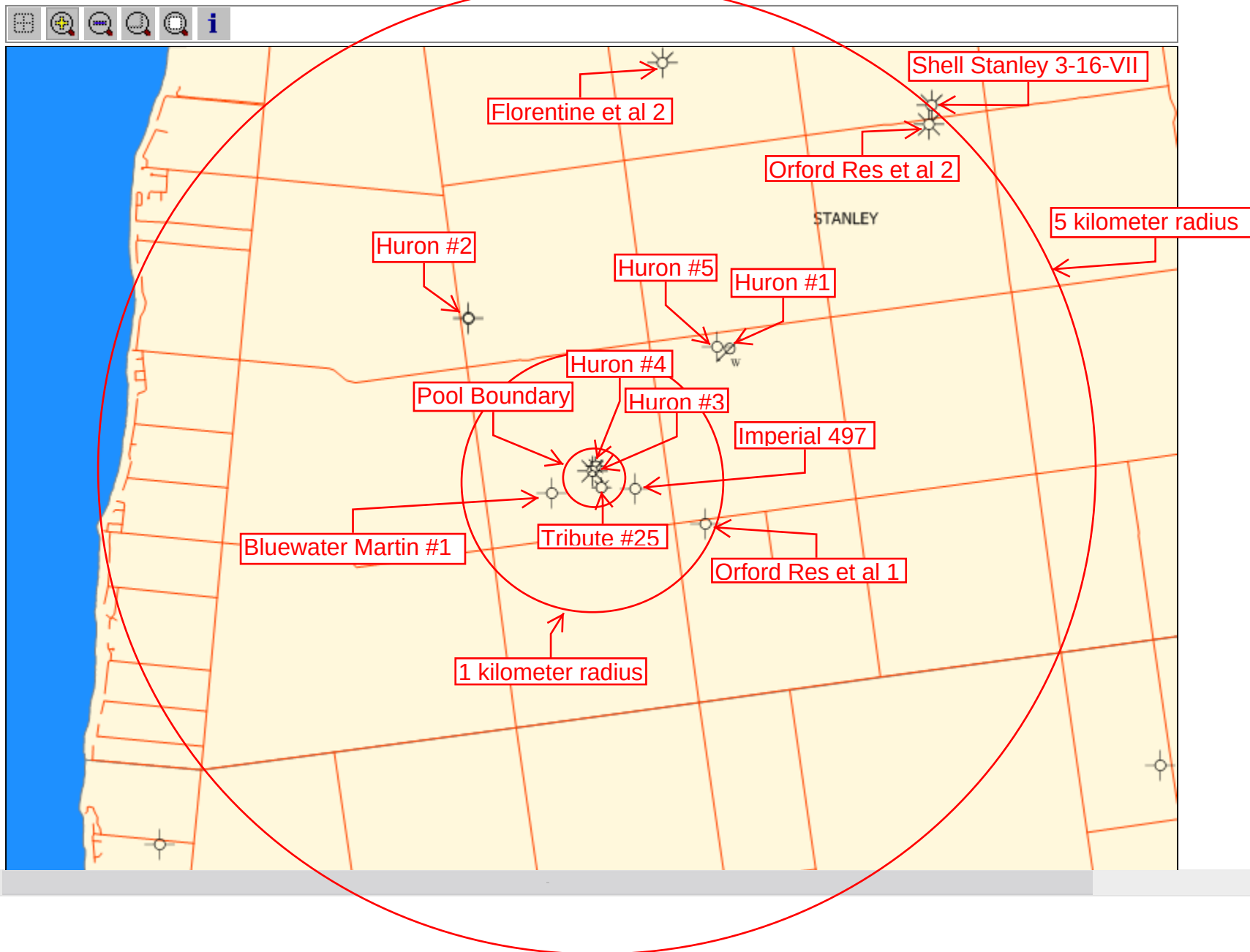


Dry Hole Abandoned

Figure 2
Well Location Map

Oil, Gas & Salt Resources Library

Ontario Petroleum Wells GIS (IMS)



Assessment of Neighboring Activities

Stanley 4-7-XI Pool Development

Appendix A

Threshold Pressure Testing Report

A2 Anhydrite Cap Rock

Tribute et al #25: Stanley 3-7-XI



Threshold Pressure Testing (A2 ANHYDRITE)

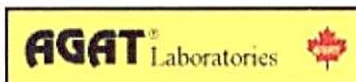
@ Stanley 3-7-XI

W/O: 08RE2532

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December 2008

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TABLE OF CONTENTS

<i>LIST OF TABLES</i>	<i>iii</i>
<i>LIST OF FIGURES</i>	<i>iii</i>
<i>1. STUDY OBJECTIVE</i>	<i>4</i>
<i>2. SCOPE OF WORK</i>	<i>4</i>
<i>3. EXECUTIVE SUMMARY</i>	<i>4</i>
<i>4. EXPERIMENTAL PROCEDURE</i>	<i>7</i>
<i>5. TABLES AND FIGURES</i>	<i>8</i>

LIST OF TABLES

<i>Table A: Summary of Petrophysical Properties.....</i>	<i>6</i>
<i>Table 1: SP-1 (476.575m) – Flow Measurement Data.....</i>	<i>9</i>
<i>Table 2: SP-2 (476.625m) – Flow Measurement Data.....</i>	<i>10</i>
<i>Table 3: SP-3 (476.835m) – Flow Measurement Data.....</i>	<i>11</i>

LIST OF FIGURES

<i>Figure 1a: SP-1 (476.575m)- Permeability Vs. Intrusion Pressure @ OB 10mPa.....</i>	<i>12</i>
<i>Figure 1b: SP-1 (476.575m)- Permeability Vs. Intrusion Pressure @ OB 12mPa.....</i>	<i>12</i>
<i>Figure 1c: SP-1 (476.575m)- Flow Rate Vs. Intrusion Pressure @ OB 10mPa.....</i>	<i>13</i>
<i>Figure 1d: SP-1 (476.575m)- Flow Rate Vs. Intrusion Pressure @ OB 12mPa</i>	<i>13</i>
<i>Figure 2a: SP-2 (476.625m)- Permeability Vs. Intrusion Pressure @ OB 10mPa.....</i>	<i>14</i>
<i>Figure 2b: SP-2 (476.625m)- Permeability Vs. Intrusion Pressure @ OB 12mPa.....</i>	<i>14</i>
<i>Figure 2c: SP-2 (476.625m)- Flow Rate Vs. Intrusion Pressure @ OB 10mPa.....</i>	<i>15</i>
<i>Figure 2d: SP-2 (476.625m)- Flow Rate Vs. Intrusion Pressure @ OB 12mPa</i>	<i>15</i>
<i>Figure 3a: SP-3 (476.835m)- Permeability Vs. Intrusion Pressure @ OB 10mPa.....</i>	<i>16</i>
<i>Figure 3b: SP-3 (476.835m)- Permeability Vs. Intrusion Pressure @ OB 12mPa.....</i>	<i>16</i>
<i>Figure 3c: SP-3 (476.835m)- Flow Rate Vs. Intrusion Pressure @ OB 10mPa.....</i>	<i>17</i>
<i>Figure 3d: SP-3 (476.835m)- Flow Rate Vs. Intrusion Pressure @ OB 12mPa</i>	<i>17</i>

1. STUDY OBJECTIVE

The objective of this study was to determine the threshold pressures of the specified plug samples from the well Tribute et al # 25 located at Stanley 3-7-XI.

2. SCOPE OF WORK

The tasks involved in this study consisted of the following:

1. Measurement of routine porosity of the core samples.
2. Measurement of routine permeability of the core samples.
3. Measurement of permeability at specified overburden pressures in terms of Threshold Pressure Test.

3. EXECUTIVE SUMMARY

Three (3) core-plug samples from the well Tribute et al #25 @ Stanley 3-7-XI were selected to conduct the threshold pressure testing. The samples chosen were at the depth intervals of 476.575, 476.625 and 476.835 m.

The three samples, namely SP-1, SP-2 and SP-3, from the well were found to have routine helium porosity of 0.23, 0.50 and 1.25%, and routine gas permeability of 0.00111, 0.00021 and 0.02661 mD. The sample SP-2 has the lowest permeability compared to SP-1 and SP-3. The Grain densities of the samples were determined to be 2909, 2914 and 2869 kg/m³. (Refer to table A)

Initially, an overburden pressure of 10 mPa was applied to the samples and the intrusion pressure was gradually increased in the order of 2, 5, 8 & 10 mPa. At an intrusion pressure of 2 mPa, the samples' effective gas permeabilities were found to range from 0.000038 to 0.009100 mD. Increasing the intrusion pressure to 5 mPa resulted in effective permeabilities ranging from 0.000043 to 0.012300 mD. At an

intrusion pressure of 8 mPa, the samples' effective gas permeabilities were found to range from 0.000052 to 0.014400 mD.

The overburden pressure was then increased to 12 mPa, and the intrusion pressure was incrementally increased in the order of 2, 5, 8, and 10 mPa. At an intrusion pressure of 2 mPa, the samples' effective gas permeabilities were found to range from 0.000034 to 0.008715 mD. Increasing the intrusion pressure to 5 mPa resulted in effective permeabilities ranging from 0.000044 to 0.009407 mD. At an intrusion pressure of 8 mPa, the samples' effective gas permeabilities were found to range from 0.000049 to 0.009915 mD. At an intrusion pressure of 10 mPa, the samples' effective gas permeabilities were found to range from 0.000054 to 0.012539 mD.

The results indicate that the gas will be produced at an intrusion pressure of 2 mPa and above at a minimum overburden pressure of all samples. Increasing the overburden pressure from 10 mPa to 12 mPa was found to decrease the permeability of the samples, indicating that some portions of the pore throats might be blocked with an application of a higher overburden pressure.

For the perspective of cap rock's sealing capacity, it is important to consider the phase and mechanical properties of the injection gas, the driving force of gas injection, type of formation cap rock structure, as well as the characteristics of the flow paths as they relate to flow rate and permeability.

Summary of threshold pressure testing results are presented in *Table A* and results for individual sample were presented in *Tables 1 to 3* and *Figures 1a to 3d*.

Table A: Summary of Threshold Pressure Testing

Sample	Well Name	Location	Depth (m)	Length (cm)	GD (kg/m ³)	Bulk Volume (cc)	Pore Volume (cc)	Routine @ 2 mPa		Over Burden Pressure = 10 mPa					
								φ (%)	K _g (mD)	2 mPa @ 10		5 mPa @ 10		8 mPa @ 10	
										Q (cc/hr)	k _g (md)	Q (cc/hr)	k _g (md)	Q (cc/hr)	k _g (md)
SP-1	Tribute-25	3-7-X1	476.575	4.494	2909	51.90	0.1177	0.23	0.00111	1.3425	0.0001300	1.6242100	0.0001700	1.6800000	0.0001980
SP-2	Tribute-25	3-7-X1	476.625	4.502	2914	52.01	0.2629	0.50	0.00021	0.6046	0.0000380	0.6738000	0.0000430	0.7560000	0.0000520
SP-3	Tribute-25	3-7-X1	476.835	4.480	2869	51.24	0.6478	1.25	0.02661	5.5963	0.0091000	9.2058000	0.0123000	9.1876000	0.0144000
Max								1.25	0.02661	5.596300	0.009100	9.205800	0.012300	9.187600	0.014400
Min								0.23	0.00021	0.604600	0.000038	0.673800	0.000043	0.756000	0.000052

Sample	Well Name	Location	Depth (m)	Length (cm)	GD (kg/m ³)	Bulk Volume (cc)	Pore Volume (cc)	Over Burden Pressure = 12 mPa							
								2 mPa @ 12		5 mPa @ 12		8 mPa @ 12		10 mPa @ 12	
								Q (cc/hr)	k _g (md)	Q (cc/hr)	k _g (md)	Q (cc/hr)	k _g (md)	Q (cc/hr)	k _g (md)
SP-1	Tribute-25	3-7-X1	476.575	4.494	2909	51.90	0.1177	1.5400000	0.0001100	1.6536000	0.0001200	1.7100000	0.0001290	1.7430000	0.0001658
SP-2	Tribute-25	3-7-X1	476.625	4.502	2914	52.01	0.2629	0.9720000	0.0000337	1.0560000	0.0000440	1.2480000	0.0000490	1.5391143	0.0000537
SP-3	Tribute-25	3-7-X1	476.835	4.480	2869	51.24	0.6478	10.0608000	0.0087148	10.0854000	0.0094066	10.1136000	0.0099149	10.1655000	0.0125386
Max								10.060800	0.008715	10.085400	0.009407	10.113600	0.009915	10.165500	0.012539
Min								0.972000	0.000034	1.056000	0.000044	1.248000	0.000049	1.539114	0.000054

φ - porosity

GD - grain density

K_g - Gas permeability

Q - Flow rate

4. EXPERIMENTAL PROCEDURE

Total of three (3) native core plug samples were extracted from the well - Tribute et al 25 located at Stanley 3-7-XI. These samples were taken from A2 CARB/A2 SHALE/A2 ANHYDRITE formation. These samples were selected to undergo the threshold pressure testing at the given overburden pressures and intrusion pressures.

The samples, received as native, were trimmed to a cylindrical shape and oven dried at 80° C. Their routine petrophysical properties of porosity (Boyle's Law porosity) and permeability were measured.

For the slow flow paths, the native state samples were individually mounted in a tri-axial coreholder and stressed to the following conditions:

Overburden Pressure = 10.0 MPa (1450 psi) with an intrusion pressures of 2,5,8 MPa
Overburden Pressure = 12.0 MPa(1740 psi) with an intrusion pressures of 2,5,8,&
10MPa
Temperature = Ambient ($\approx 20^{\circ}\text{C}$)

Nitrogen gas was then injected into the samples at increasing pressures to determine the pressure at which nitrogen gas would be produced. Injection pressure started at 2 MPa and was increased to 5, 8, and 10 MPa, with 10 MPa being the maximum operating pressure of the reservoir. At each pressure, the samples' effective gas permeability was measured.

After an injection pressure of 10 MPa was achieved, the over burden pressure was raised to 12 MPa and the nitrogen gas permeability was re-measured with an injection pressure of 2 MPa and then increased subsequently to 5, 8, & 10 MPa to determine if additional overburden pressure would seal off the samples.

5. TABLES AND FIGURES

Table 1: SP-1 (476.575m) – Flow Measurement Data

SAMPLE: **SP-1**
Depth(m): 476.575
Routine at 2 mPa

Porosity(%) 0.23
Permeability(mD) 0.00111

	Intrusion Pressure(Mpa)	Permeability (mD)	Flow Rate (cc/min)
Overburden Pressure @ 10 mPa	2	0.00013	0.0224
	5	0.00017	0.0271
	8	0.00020	0.0280

	Intrusion Pressure(Mpa)	Permeability (mD)	Flow Rate (cc/min)
Overburden Pressure @ 12 mPa	2	0.00011	0.0257
	5	0.00012	0.0276
	8	0.00013	0.0285
	10	0.00017	0.0291

Table 2: SP-2 (476.625m) – Flow Measurement Data

SAMPLE: **SP-2**
Depth(m): 476.625

Routine at 2 mPa

Porosity(%) 0.50
Permeability(mD) 0.00021

	Intrusion Pressure(Mpa)	Permeability (mD)	Flow Rate (cc/min)
Overburden Pressure @ 10 mPa	2	0.000038	0.0101
	5	0.000043	0.0112
	8	0.000052	0.0126

	Intrusion Pressure(Mpa)	Permeability (mD)	Flow Rate (cc/min)
Overburden Pressure @ 12 mPa	2	0.000034	0.0162
	5	0.000044	0.0176
	8	0.000049	0.0208
	10	0.000054	0.0257

Table 3: SP-3 (476.835m) – Flow Measurement Data

SAMPLE: **SP-3**
Depth(m): 476.835

Routine at 2 mPa

Porosity(%) 1.25
Permeability(mD) 0.02661

	Intrusion Pressure(Mpa)	Permeability (mD)	Flow Rate (cc/min)
Overburden Pressure @ 10 mPa	2	0.0091	0.0933
	5	0.0123	0.1534
	8	0.0144	0.1531

	Intrusion Pressure(Mpa)	Permeability (mD)	Flow Rate (cc/min)
Overburden Pressure @ 12 mPa	2	0.0087	0.1677
	5	0.0094	0.1681
	8	0.0099	0.1686
	10	0.0125	0.1694

Figure 1a: SP-1 (476.575m)- Permeability Vs. Intrusion Pressure @ OB 10mPa

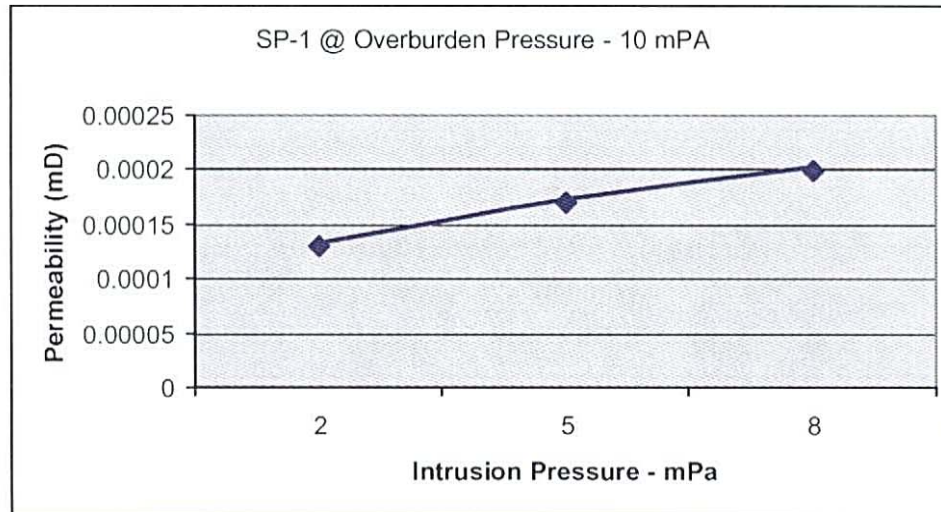


Figure 1b: SP-1 (476.575m)- Permeability Vs. Intrusion Pressure @ OB 12mPa

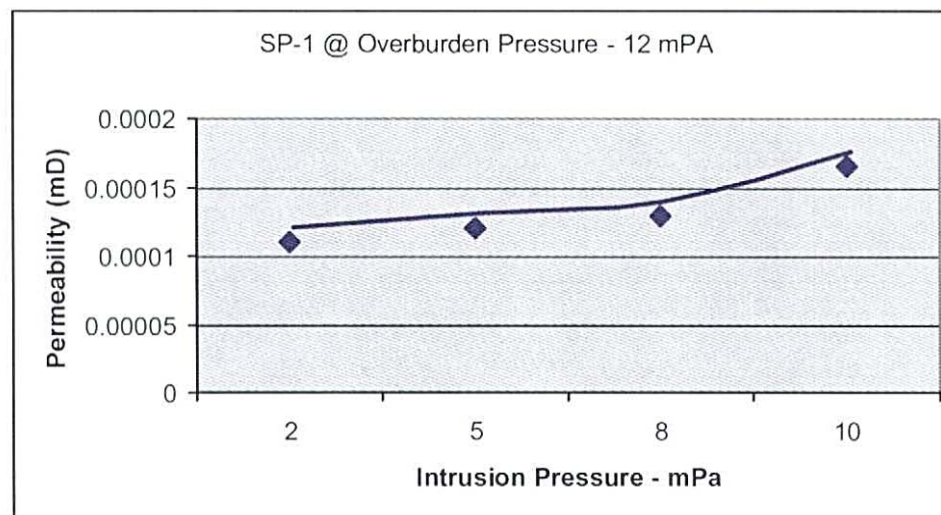


Figure 1c: SP-1 (476.575m)- Flow Rate Vs. Intrusion Pressure @ OB 10mPa

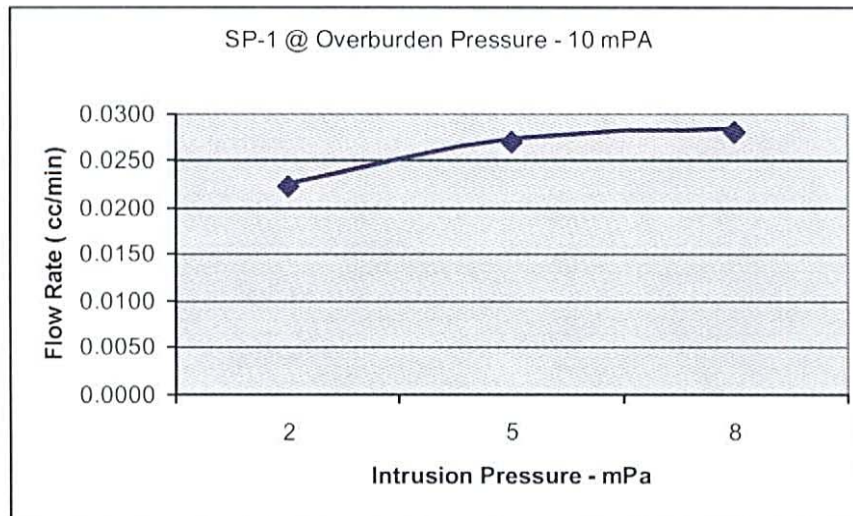


Figure 1d: SP-1 (476.575m)- Flow Rate Vs. Intrusion Pressure @ OB 12mPa

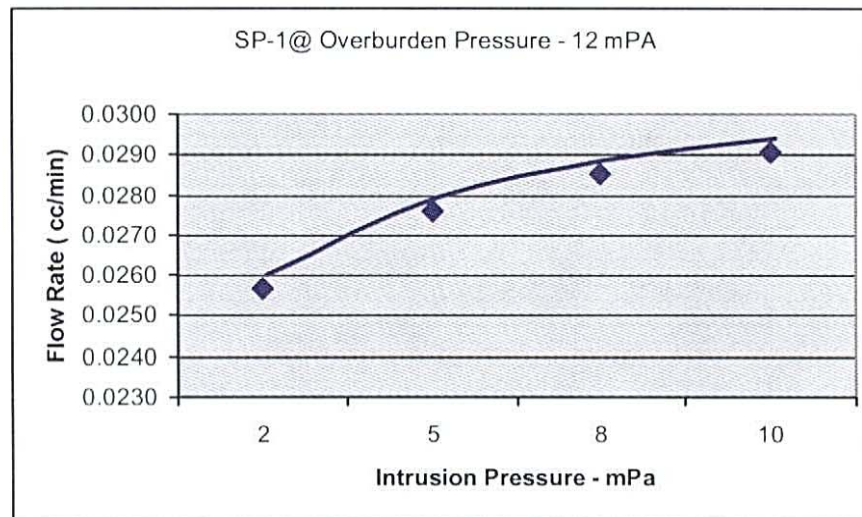


Figure 2a: SP-2 (476.625m)- Permeability Vs. Intrusion Pressure @ OB 10mPa

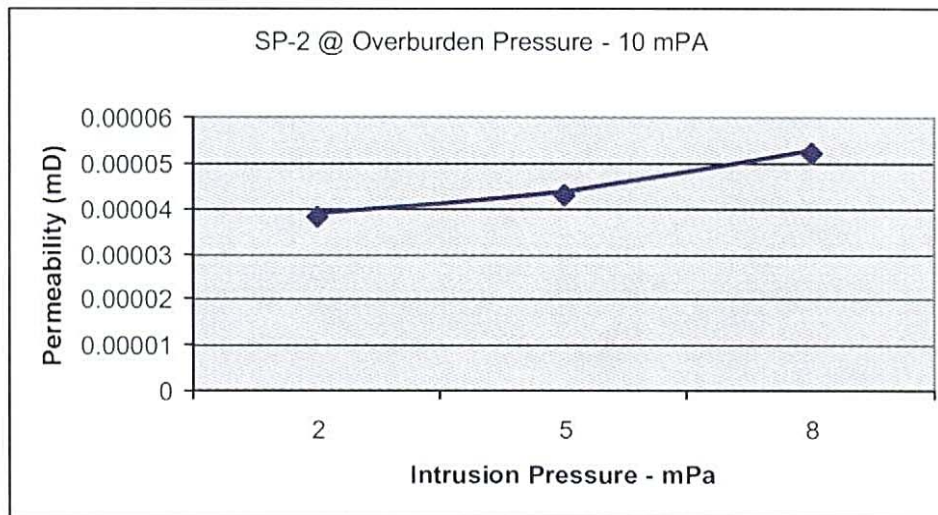


Figure 2b: SP-2 (476.625m)- Permeability Vs. Intrusion Pressure @ OB 12mPa

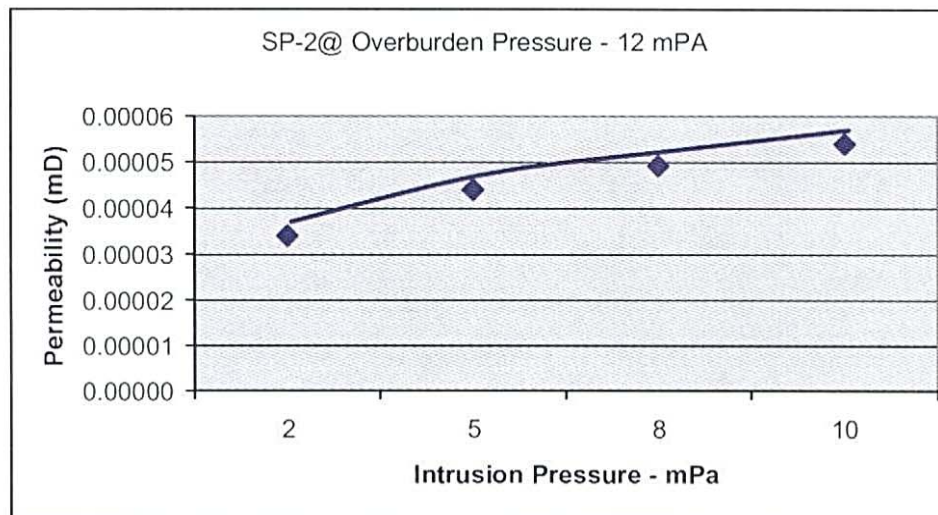


Figure 2c: SP-2 (476.625m)- Flow Rate Vs. Intrusion Pressure @ OB 10mPa

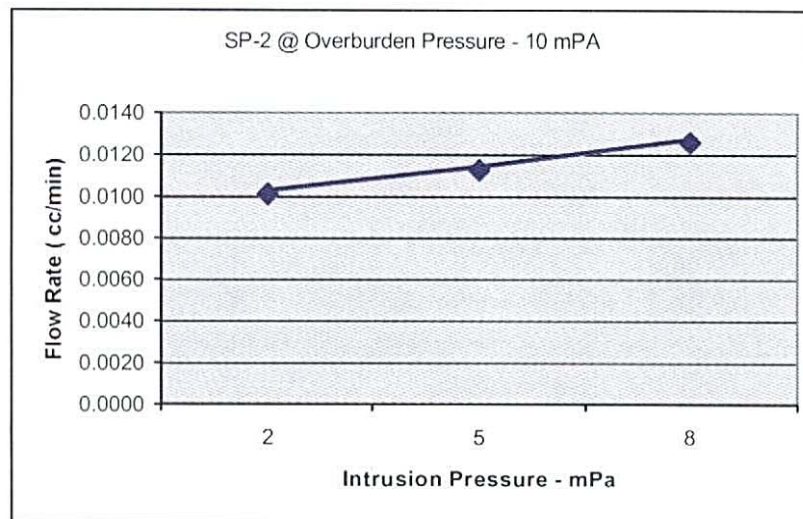


Figure 2d: SP-2 (476.625m)- Flow Rate Vs. Intrusion Pressure @ OB 12mPa

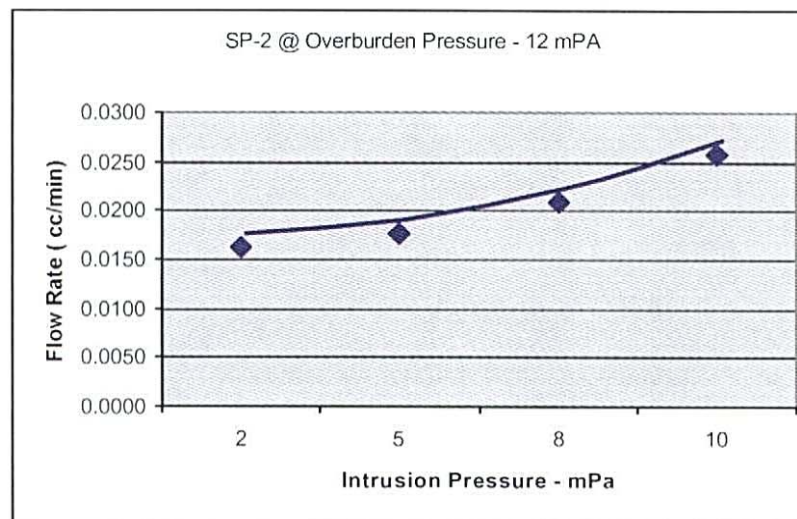


Figure 3a: SP-3 (476.835m)- Permeability Vs. Intrusion Pressure @ OB 10mPa

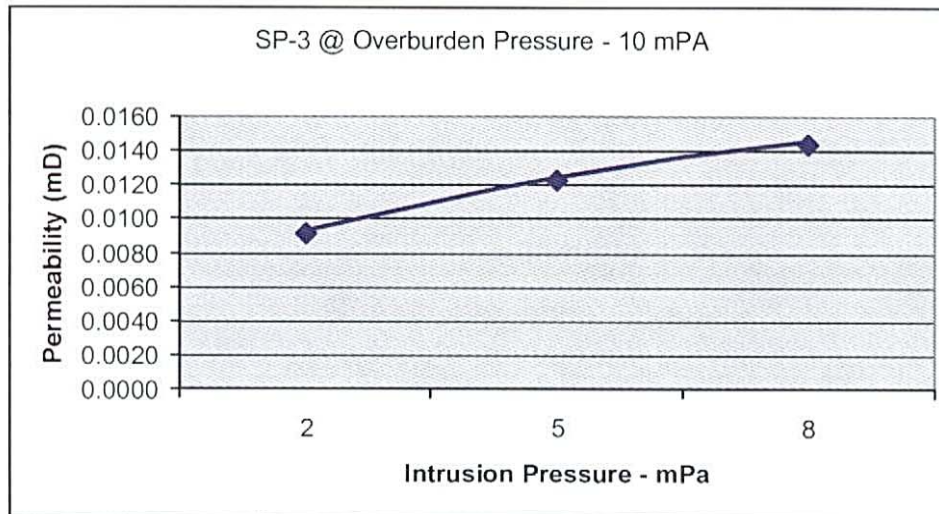


Figure 3b: SP-3 (476.835m)- Permeability Vs. Intrusion Pressure @ OB 12mPa

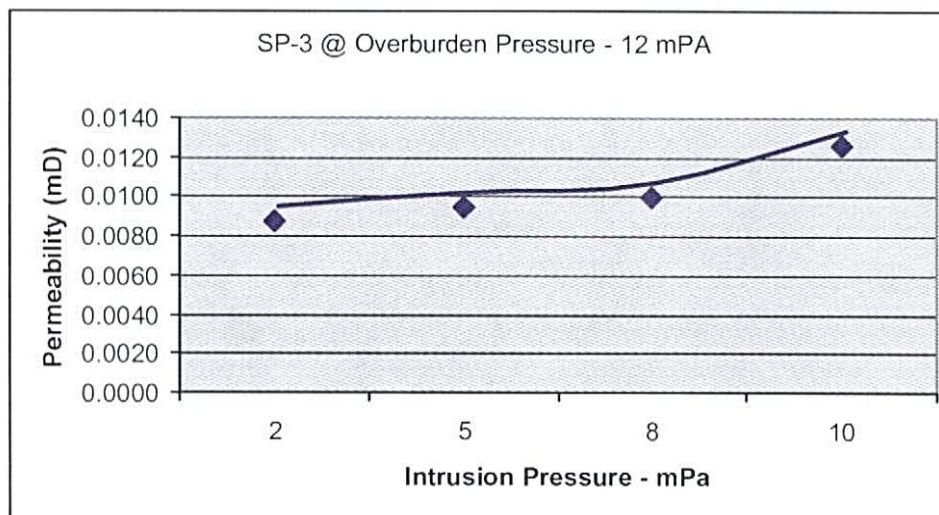


Figure 3c: SP-3 (476.835m)- Flow Rate Vs. Intrusion Pressure @ OB 10mPa

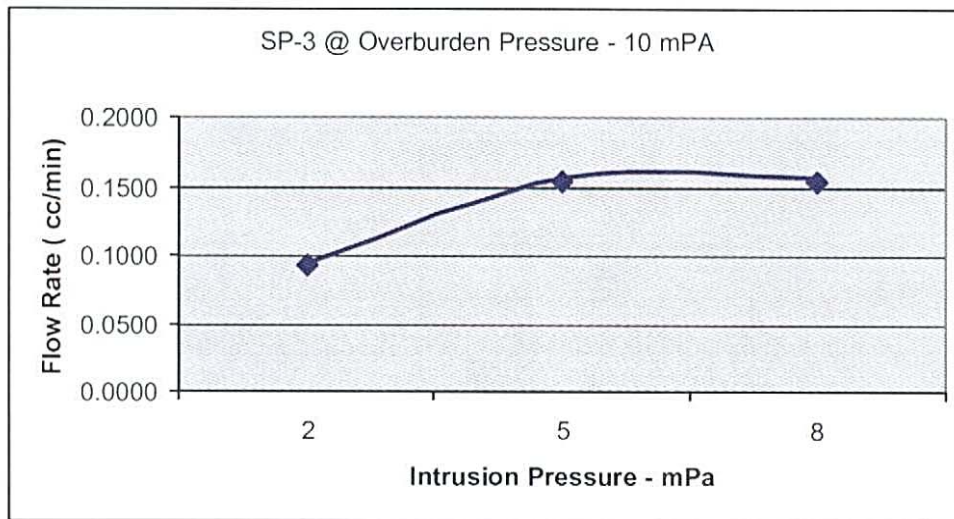
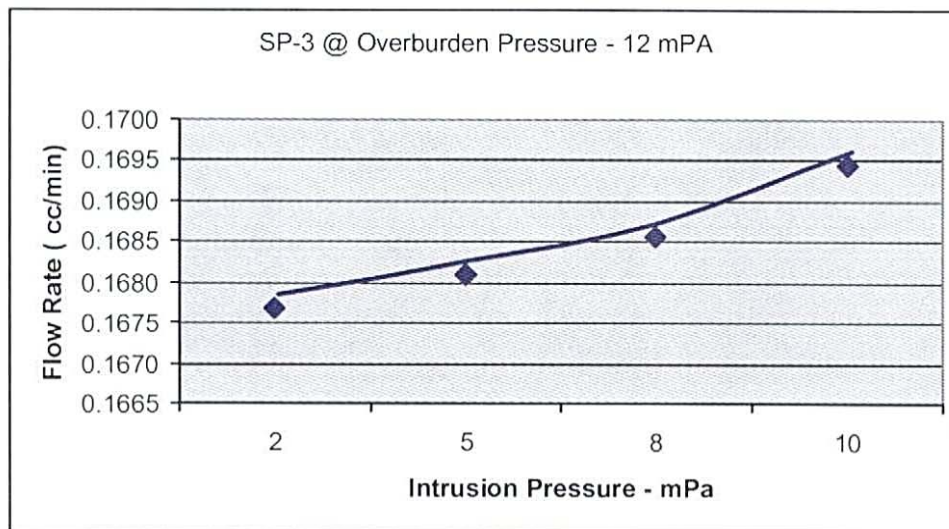


Figure 3d: SP-3 (476.835m)- Flow Rate Vs. Intrusion Pressure @ OB 12mPa



Assessment of Neighboring Activities

Stanley 4-7-XI Pool Development

Appendix B

Well Information on Wells Within the Storage Zone

Form 10

Well being: Plugged ☒ Plugged Back ☐ Plug Back TD ☐

WELL NAME Huron # 3, Stanley 4-7-XI LICENCE NO. 5885

Name of Operator Tribute Resources Inc Tel. # (519) 657-7624

Address Unit E-309 Commissioners Rd. W, London, On. N6J-1Y4 Fax # (519) 657-4296

Location County Huron Township Stanley

Tract 4 Lot 7 Concession XI Lake Erie: Block Tract

Coordinates from 262.1 m. N ☒ S ☐ 224.0 m. E ☒ W ☐ Latitude 43.4806

Lot Boundaries

Landowner McKinley Farms Tel. # 519-263-5392 Longitude 81.64725

Plugging Contractor Tracor Well Service Inc Tel. # (519) 401-4729

Plugging Start Date 02-Oct-08 Plugging End Date 19-Nov-08 Thickness of Drift 89 m

GAS INTERVALS AND PRESENT FLOW AND PRESSURE			WATER RECORD						
INTERVAL	FLOW 1000 m³/d	S.I. PRESSURE kPa	INTERVAL	LEV. FR. SURF.	TYPE				
477 m	TSTM	5 kpa	100- 120 m	40 m	sulpher water				
530-555 m	TSTM	5 kpa							
OIL INTERVALS AND PRESENT FLOW			CASING AND TUBING RECORD						
INTERVAL	FLOW m³/d	API GRAVITY	SIZE mm	SET AT m.	HOW SET	m. RECOVERED	m. LEFT IN		
			406	71.3	shoe	2	69.3		
			273	92	shoe	2	90		
			219	124.4	cmt	NA	NA		
			178	291.5	cmt	2	289.5		
			114	615	cmt	2	613		
PLUG LOCATIONS			PLUG LOCATIONS						
PLUG #	TOP DEPTH	BASE DEPTH	CEM AMT	CEM TYPE	PLUG #	TOP DEPTH	BASE DEPTH	CEM AMT	CEM TYPE
1	505	585	25 sks	Neat	8	surface	18	40 sks	neat
2	489	491	Brdg plug		9	surface	9	8 sks	neat
3	360	486	40 sks	Neat	10	surface	8	2 sks	neat
4	179	280	27 sks	Neat					
5	77	132	6 tonne	RFC					
6	9	87	6 tonne	OWS/RFC					
7	8	67	15 sks	neat					

Additional Detail

Plug # 1- Oct 7, 2008- pump 25 sks plug at 585 m
Oct 9, 2008- Tag plug at 505 m. **Plug # 2-** Set mechanical bridge plug at 492 m - Pressure test to 7000 Kpa for 10 minutes
Oct 10, 2008- cmt bond log 114 mm casing- cmt top at 69 mKb
Oct 10, 2008- Plug # 3- pump 40 sks at 486 m.
Oct 17, 2008- Plug # 4- pump 40 sk at 320 m. Plug tagged at 179 m RF
Oct 21, 2008- Plug # 5- Pump 6 tonne plug down 114 mm casing to plug hole at 130 m
Oct 22, 2008- Tag plug at 77 m RF
Oct 27, 2008- Plug # 6- Pump 6 tonne of RFC lite cmt down 271 mm by 177 mm anulus- cmt to surface
Oct 28, 2008- Plug # 7- Pump 15 sk plug inside 114 mm casing. Plug tagged at 8 m Rf
Nov. 3, 2008- Plug # 8- Pump 8 sk cmt between 177 mm and 114 mm anulus
Nov 3, 2008- Plug # 9- Pump 40 sks cmt between 406 mm and 273 mm anulus
Nov 3, 2008- Plug # 10- Pump 2 sks cmt inside 114 mm casing.

Plugging Contractor Tracor Well Service Inc Tel. # (519) 401-4729
 Plugging Start Date 02-Oct-08 Plugging End Date 19-Nov-08 Thickness of Drift 89 m

GAS INTERVALS AND PRESENT FLOW AND PRESSURE			WATER RECORD		
INTERVAL	FLOW 1000 m ³ /d	S.I. PRESSURE kPa	INTERVAL	LEV. FR. SURF.	TYPE
477 m	TSTM	5 kpa	100- 120 m	40 m	sulphur water
530-555 m	TSTM	5 kpa			

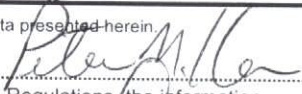
OIL INTERVALS AND PRESENT FLOW			CASING AND TUBING RECORD			
INTERVAL	FLOW m ³ /d	API GRAVITY	SIZE mm	SET AT m.	HOW SET	m. RECOVERED
			406	71.3	shoe	2
			273	92	shoe	2
			219	124.4	cmt	NA
			178	291.5	cmt	2
			114	615	cmt	2

PLUG LOCATIONS					PLUG LOCATIONS				
PLUG #	TOP DEPTH	BASE DEPTH	CEM AMT	CEM TYPE	PLUG #	TOP DEPTH	BASE DEPTH	CEM AMT	CEM TYPE
1	505	585	25 sks	Neat	8	surface	18	40 sks	neat
2	489	491	Brdg plug		9	surface	9	8 sks	neat
3	360	486	40 sks	Neat	10	surface	8	2 sks	neat
4	179	280	27 sks	Neat					
5	77	132	6 tonne	RFC					
6	9	87	6 tonne	OWS/RFC					
7	8	67	15 sks	neat					

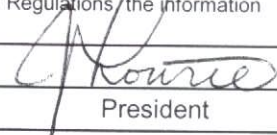
Additional Detail

Plug # 1- Oct 7, 2008- pump 25 sks plug at 585 m
 Oct 9, 2008- Tag plug at 505 m. **Plug # 2-** Set mechanical bridge plug at 492 m - Pressure test to 7000 Kpa for 10 minutes
 Oct 10, 2008- cmt bond log 114 mm casing- cmt top at 69 mKb
 Oct 10, 2008- Plug # 3- pump 40 sks at 486 m.
 Oct 17, 2008- Plug # 4- pump 40 sk at 320 m. Plug tagged at 179 m RF
 Oct 21, 2008- Plug # 5- Pump 6 tonne plug down 114 mm casing to plug hole at 130 m
 Oct 22, 2008- Tag plug at 77 m RF
 Oct 27, 2008- Plug # 6- Pump 6 tonne of RFC lite cmt down 271 mm by 177 mm anulus- cmt to surface
 Oct 28, 2008- Plug # 7- Pump 15 sk plug inside 114 mm casing. Plug tagged at 8 m Rf
 Nov. 3, 2008- Plug # 8- Pump 8 sk cmt between 177 mm and 114 mm anulus
 Nov 3, 2008- Plug # 9- Pump 40 sks cmt between 406 mm and 273 mm anulus
 Nov 3, 2008- Plug # 10- Pump 2 sks cmt inside 114 mm casing.
 Nov 4, 2008. Anulus between 406 mm by 273 mm -cement to surface, Anulus between 177 mm and 114 mm- cmt at surface
 Nov 4, 2008- Cement to surface inside 114 mm casing
 Nov 19, 2008- dig down 2 m- cut off all casings- Weld on steel cap, Back fill hole.

The undersigned certified examiner visited the site during the plugging operation and certifies the accuracy of the data presented herein.

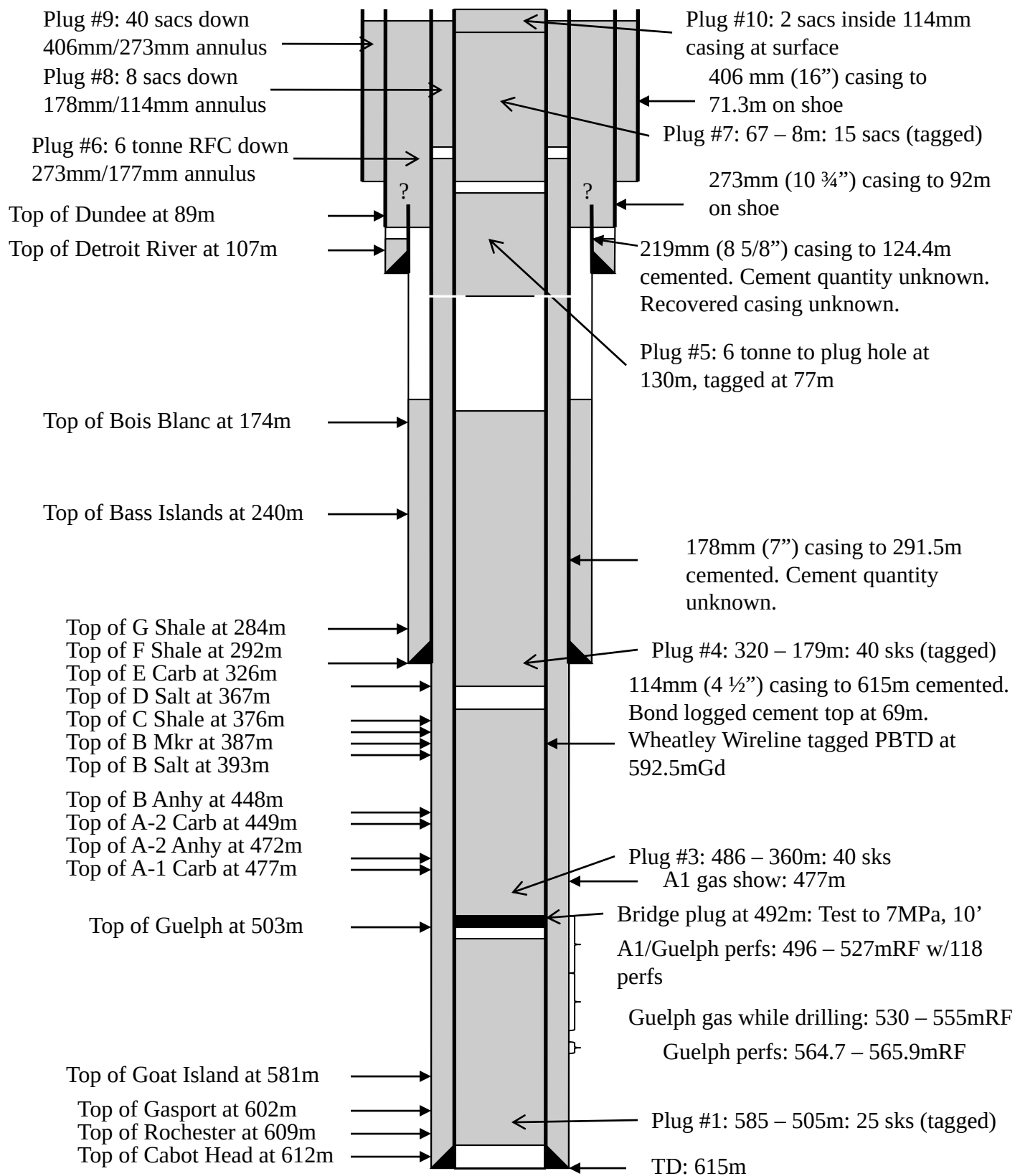
Certified Examiner: Name Peter Miller E058/07-10/124 Signature 

The undersigned certifies that the above-noted well has been plugged in compliance with the Act and Regulations, the information provided herein is complete and accurate, and he/she has authority to bind the operator

Date	25-Nov-08	Name	Jane Lowrie	Signature	
Company	Tribute Resources Inc.		Title	President	

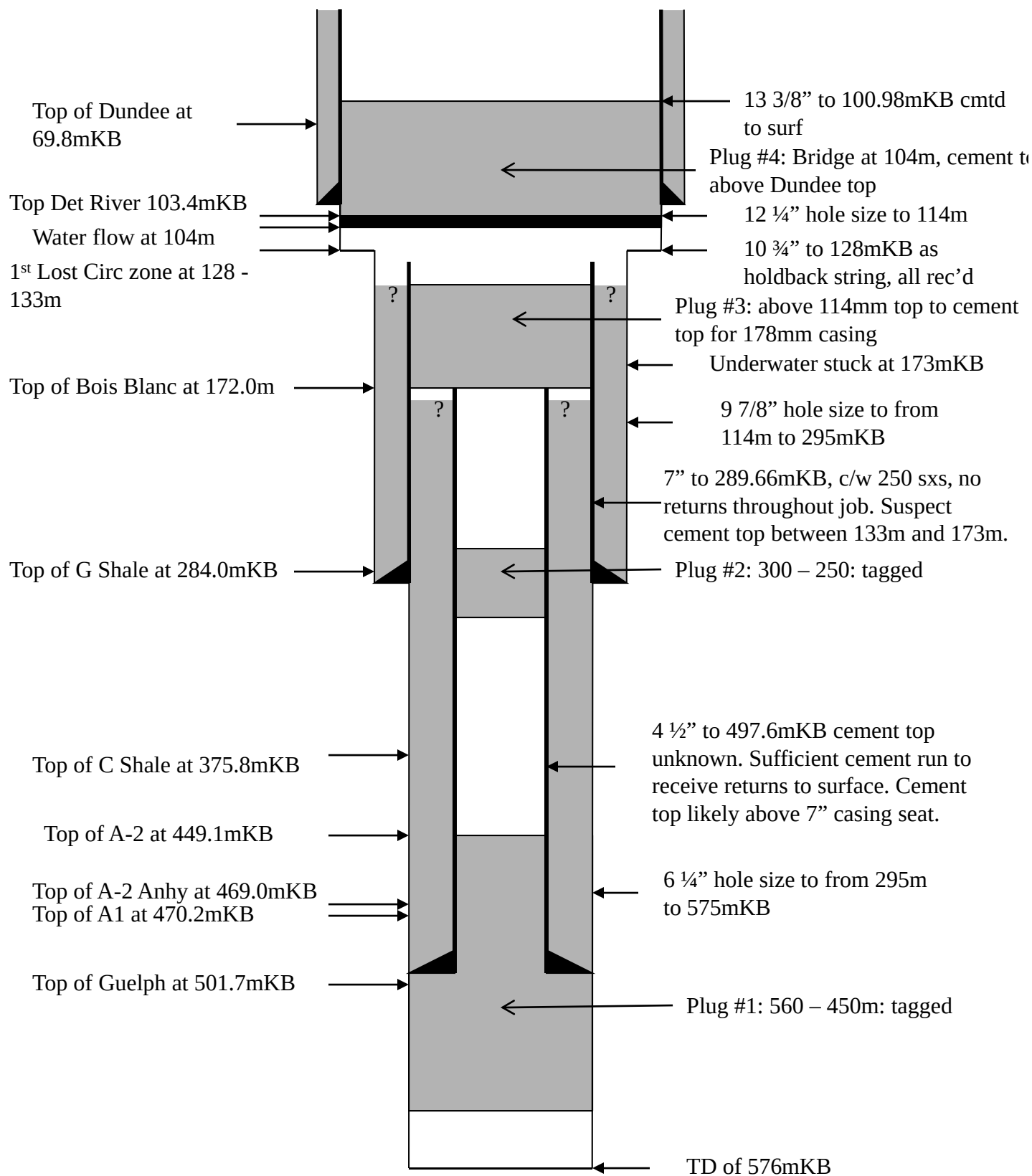
Wellbore Schematic Diagram

Huron #3: Stanley 4-7-XI Wellbore after Plugging



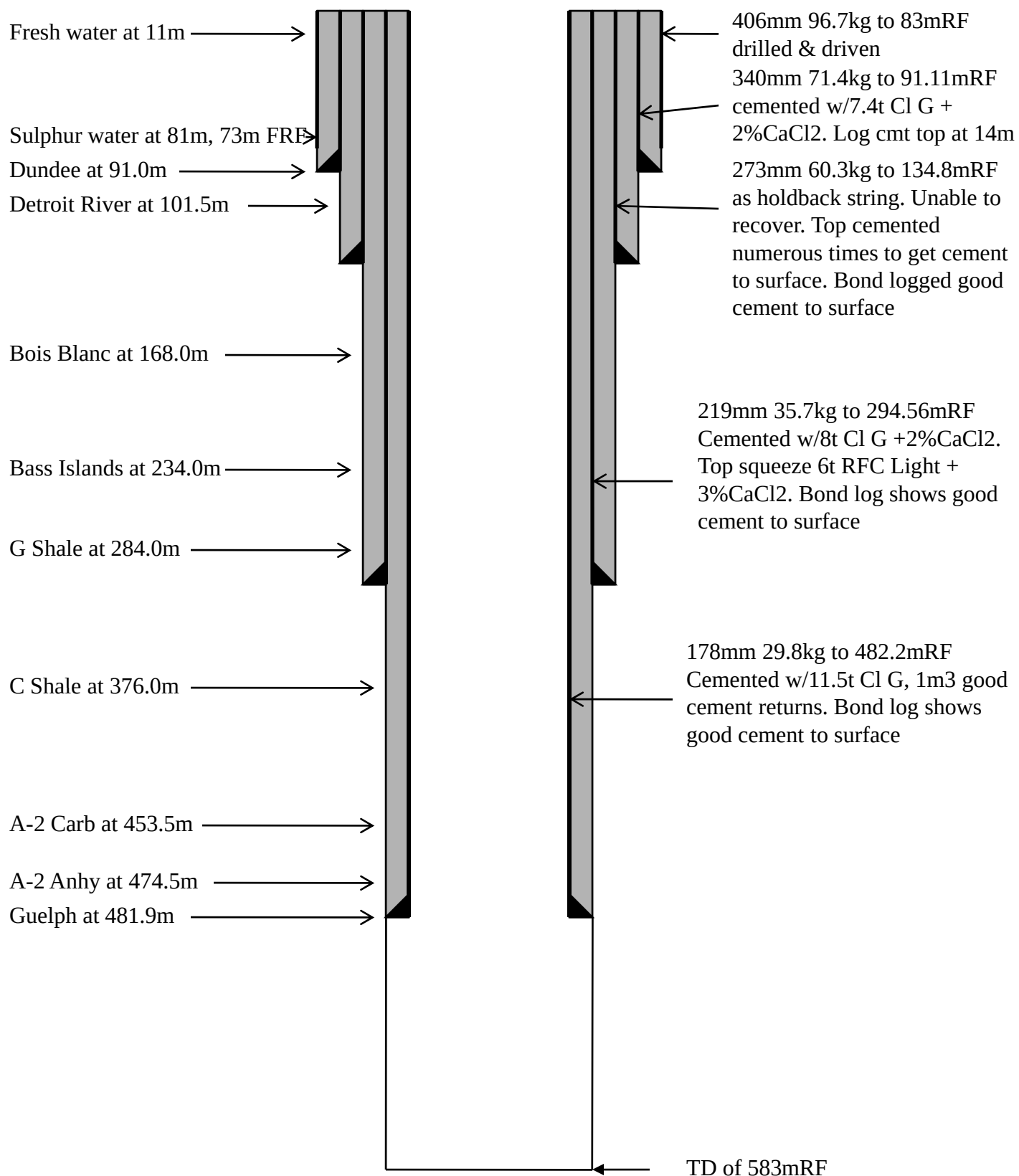
Wellbore Schematic Diagram

Huron #4: Stanley 3-7-XI Wellbore after plugging



Wellbore Schematic Diagram

Tribute et al #25: Stanley 3-7-XI Wellbore



Assessment of Neighboring Activities

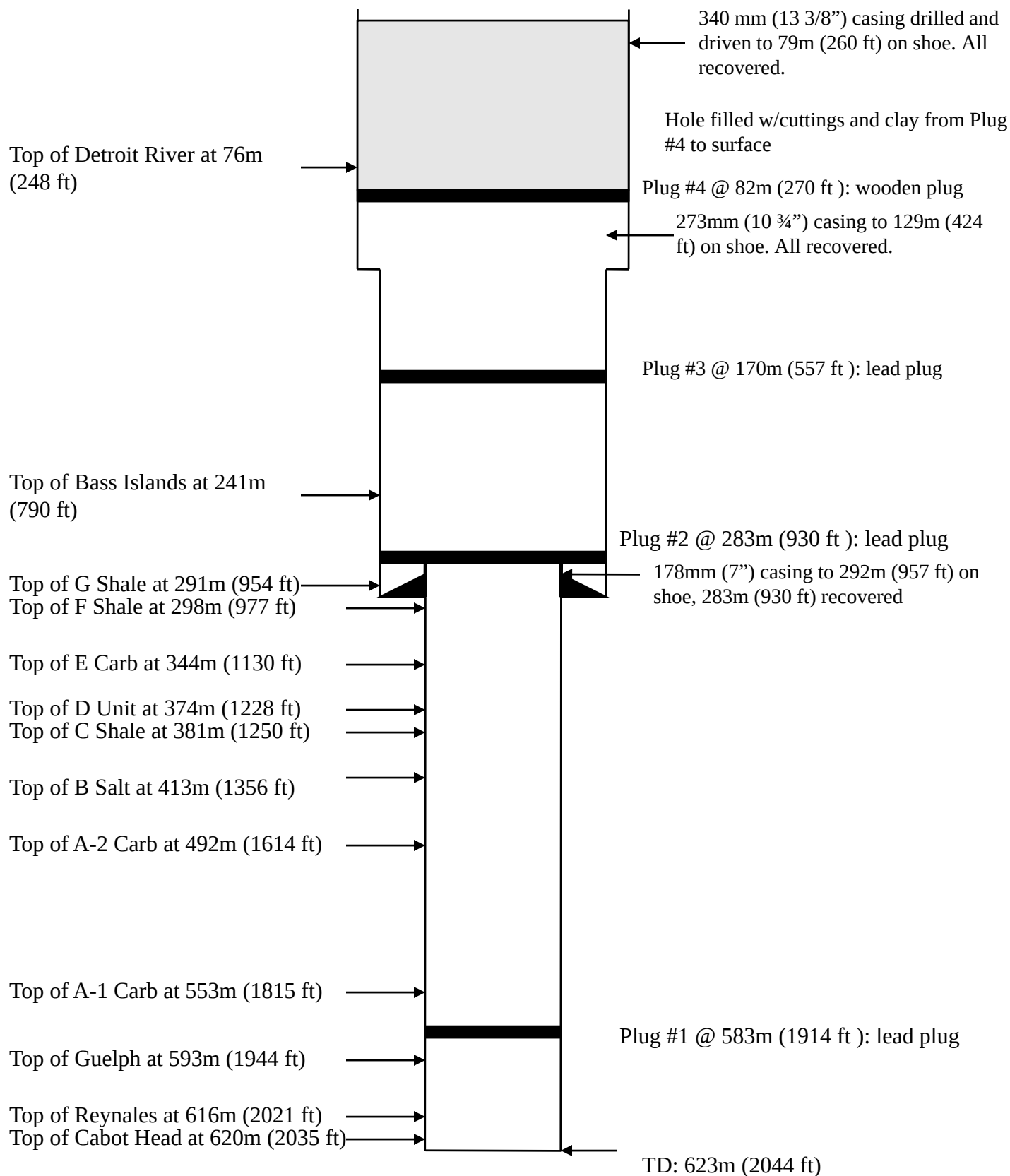
Stanley 4-7-XI Pool Development

Appendix C

Well Information on Wells Within 1 kilometer of Pool

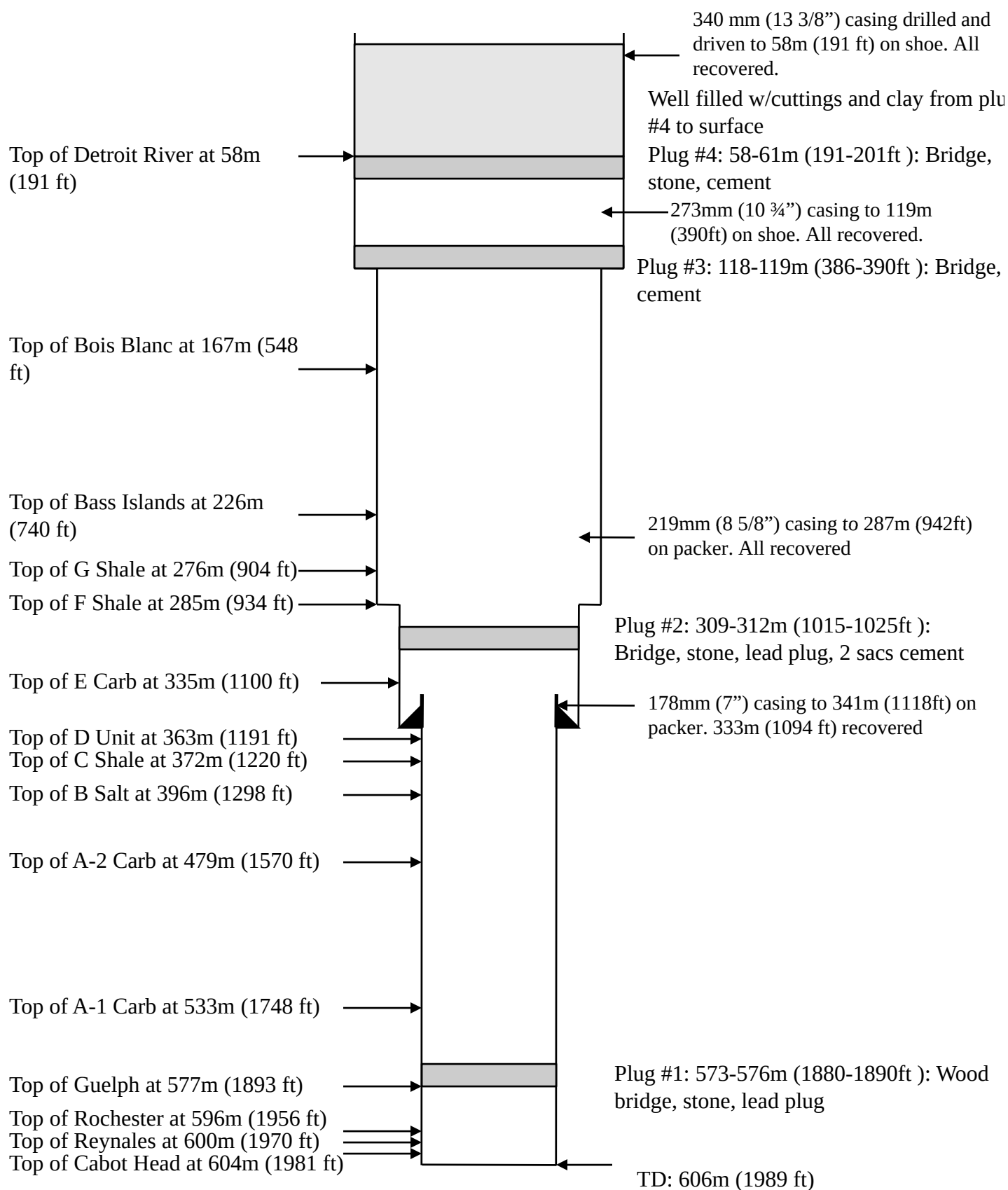
Wellbore Schematic Diagram

Imperial 497 – McKinley #1: Stanley 7-XI Wellbore



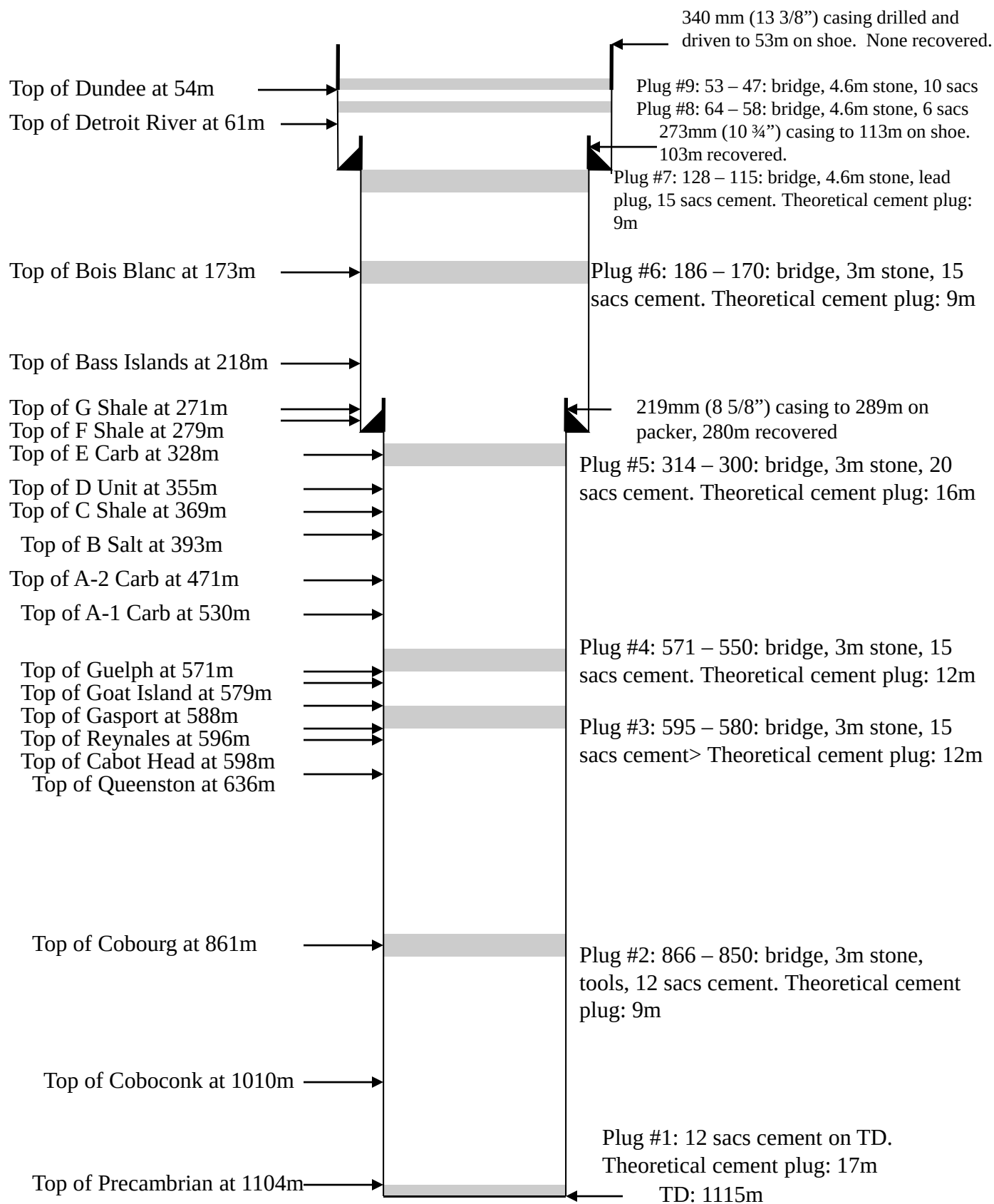
Wellbore Schematic Diagram

Bluewater Martin #1: Stanley 7-XII Wellbore



Wellbore Schematic Diagram

Orford Res et al #1: Stanley 3-5-X Wellbore



Tab D

Stanley 4-7-XI Pool

Wells and Connecting Pipelines

Summary

The Stanley Pool currently consists of Huron #3, Stanley 4-7-XI, which has been plugged and abandoned, Huron #4, Stanley 3-7-XI, which will be plugged and abandoned prior to commencement of gas injection, and Tribute Resources et al #25, Stanley 3-7-XI, which was drilled by Tribute Resources Inc. to collect the A2 Anhydrite core, and was equipped as a vertical well, with 178mm casing set in the A2 Anhydrite cap rock to the Guelph gas storage pool, with the Guelph open-hole completed.

Bayfield Resources Inc. (Bayfield Resources) plans to drill a multi-lateral horizontal well as the main Injection/Withdrawal (I/W) well for the pool. Bayfield Resources et al #3 (Horiz. #1), Stanley 3-7-XI will be the initial horizontal drainhole for the well, with Bayfield Resources et al #3 (Horiz. #1-Lat. #1), Stanley 3-7-XI drilled as a lateral out of the initial horizontal drainhole. Although Tribute Resources et al #25, Stanley 3-7-XI has been drilled and cased as a potential I/W or Observation well, the net pay contacted by the well was thin and toward the base of the reef. Tribute Resources et al #25 (Horiz. #1), Stanley 3-7-XI will be a horizontal drainhole drilled from the vertical Guelph section in the well to contact more porosity and will convert the well to be a good I/W well as well. With Tribute Resources et al #25 converted to an I/W well, Bayfield Resources will require another well to be drilled into the reef as an Observation well. Bayfield Resources et al #4, Stanley 4-7-XI will be drilled and cased as an Observation well.

The I/W wells, Bayfield Resources et al #3 (Horiz. #1), Bayfield Resources et al #3 (Horiz. #1-Lat. #1), and Tribute Resources et al #25 (Horiz. #1) will be tied into the Pool Meter, Pressure, and Volume Control Station (the "PMPVC Station") at the Stanley 4-7-XI pool site with NPS 8 pipeline as the gathering system for the pool. This PMPVC Station will interconnect with the Bayfield Pipeline Corp. gas transmission system, which connects the Bayfield and Stanley 4-7-XI pools through a compressor/dehydrator station near Zurich to the Union Gas transmission system at the Lobo compressor station.

Nearby ground water well monitoring and reservoir monitoring programs are discussed in Tab D, Sections 6 and 7 respectively.

D 2-1

Application for Well License

Bayfield Resources et al #3 (Horiz. #1), Stanley 3-7-XI

Table of Contents	Page
Form 1: Application for Well License	2
Survey	3
Drilling Program	4

Oil, Gas and Salt Resources Act

Phone Number of Landowner



Application for a Well Licence

Form 1

To the Minister of Natural Resources

v.2000-08-18

The undersigned operator applies for a well licence under the Oil, Gas and Salt Resources Act and the Regulations thereunder and submits the following information, together with the application fee of \$100 + 7% GST.

1. WELL NAME Bayfield Resources et al #3 (Horiz. #1), Stanley 3-7-XI Target Formation GuelphPurpose of Proposed Well (Well Type) Injection/Withdrawal2. NAME OF OPERATOR Bayfield Resources Inc. Tel # 519-657-2151Address 309 Commissioners Rd. W. Unit E, London, ON, N6J 1Y4 Fax # 519-657-42963. LOCATION County Huron Township StanleyTract 3 Lot 7 Concession XI Lake Erie: Block Tract Lake Erie licence or lease number Bottom-hole location Bottom-hole Latitude N43 28' 53.279" Bottom-hole Longitude W81 38' 52.319"Surface location: metres from Lot Boundaries 184.25 m North ☒ South ☐ Latitude N43 28' 47.399"325.70 m East ☒ West ☐ Longitude W81 38 44.760"Within 1.6 km of Designated Storage Area? Yes ☐ No ☒ Off-target? Yes ☒ No ☐4. WELL PARTICULARS Vertical ☐ Horizontal ☒ Directional ☐ Deepening ☐ Re-entry ☐ Lateral ☐Rig Type: Rotary ☒ Cable ☐ Well to be cored? Yes ☐ No ☒ Formation at TD GuelphGround Elevation 264.7 Proposed Depth 697m Proposed Depth TVD 522m Proposed Start Date 1-Jan-105. LANDOWNER McKinley Farms & Hatchery Limited Tel # 519-263-5392Address 74370 Goshen Line, RR#1, Zurich, ON, N0M 2T0Spacing unit shown on attached survey plan is pooled (see O.Reg. 245/97 definitions: "pooled spacing unit") Yes ☒ No ☐6. DRILLING CONTRACTOR (if known) unknownAddress

7. PROPOSED CASING AND CEMENTING PROGRAM

Hole Size (mm)	Casing O.D. (mm)	Weight (kg/m)	Grade	New, Used or in-hole	Setting Depth TVD	Setting Formation	CASING SETTING INFORMATION		
							How Set	Cement Type	Cement Top KB / RF
508	406	96.7	H-40	New	94m	Bedrock-Dundee	Cement	RFClight	surface
384	340	81.10	LS	New	110m	Detroit River	Cement	RFCligh/G	surface
311	244	53.6	J55	New	300m	F-Shale	Cement	RFCligh/G	surface
222	178	29.76	K55	New	481m	A-2 Anhydrite	Cement	G	surface

8. BLOW-OUT PREVENTION EQUIPMENT	11" blind and pipe rams, 2000 psi annular preventor, rotating head spool and valves fill-up and flare lines (or equivalent to meet standards).

9. WELL SECURITY

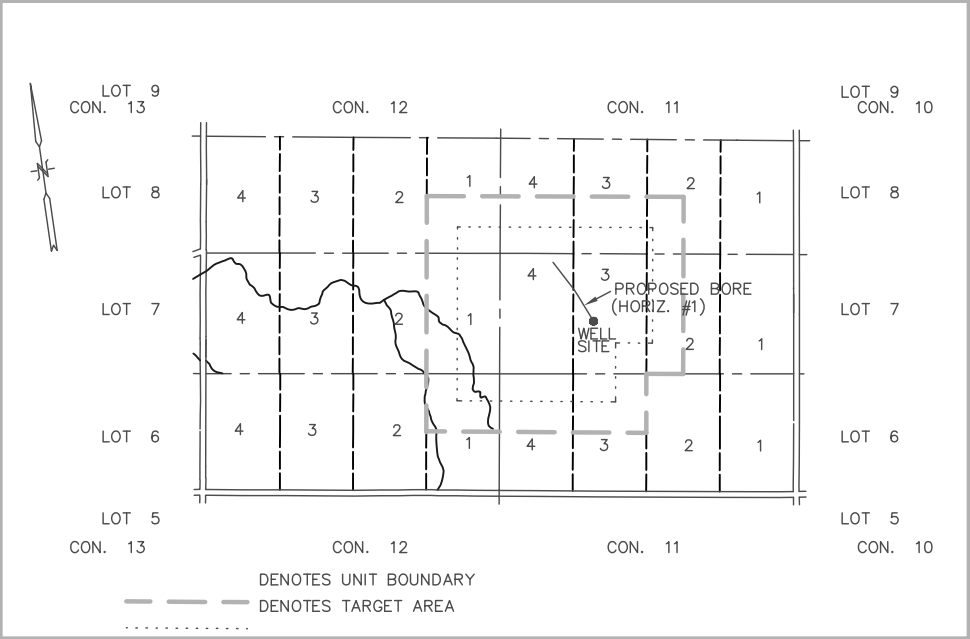
Name of Trustee Giffen & Partners Address 465 Waterloo Street, London, Ontario N6B 2K4
Tel # 519-679-4700 Fax # 519-432-8003 Total # unplugged wells 0 Current Balance \$56,000

10. REMARKS

Well in Unitized Stanley 4-7-XI Pool
340mm casing run if required by hole conditions.11. ENCLOSURES: Fee ☒ Location Plan ☒ (Land wells only) Drilling Program ☒

12. AUTHORITY: The undersigned certifies that the information provided herein is complete and accurate, the operator has the right to drill or operate a well in the above location, and he/she has authority to bind the operator.

Date 15-Sep-09 Name J. Lowrie Signature
Date of Birth Feb. 12, 1955. Title President

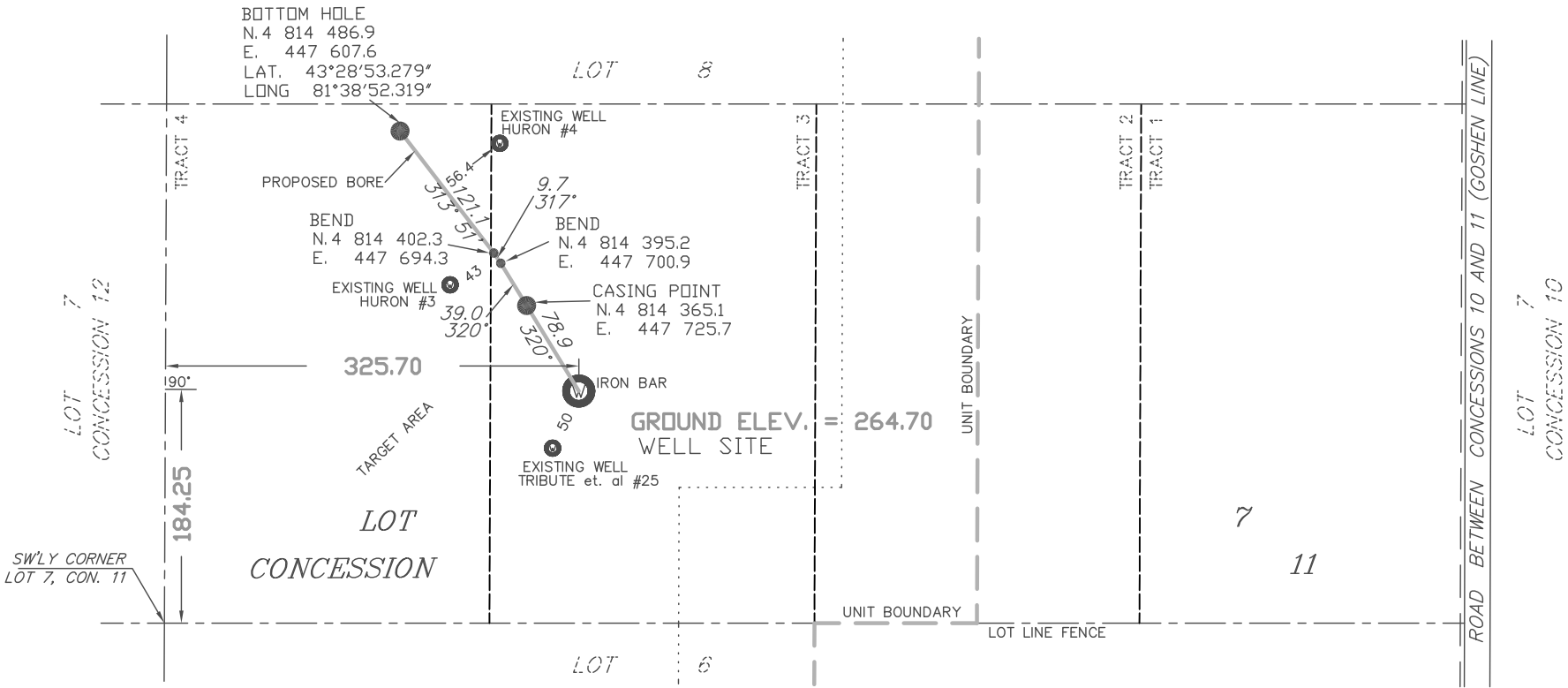


PLAN OF PROPOSED WELL
LOT 7
CONCESSION 11
GEOGRAPHIC TOWNSHIP OF STANLEY
MUNICIPALITY OF CENTRAL HURON
COUNTY OF HURON

SCALE 1:5000

WELL NAME
BAYFIELD RESOURCES et. al. #3 (HORIZ. #1) – STANLEY – 3 – 7 – 11

NOTE (WELL SITE) CO-ORDINATES
LATITUDE N.43°28'47.399" LONGITUDE W.81°38'44.760"
U.T.M. N.4 814 304.2 E.447 776.0



--- DENOTES UNIT BOUNDARY
..... DENOTES TARGET AREA

BEARING NOTE
ALL AZIMUTH BEARINGS HEREON ARE REFERRED TP TRUE NORTH.

NOTE METRIC
DISTANCES SHOWN ON THIS PLAN ARE IN METERS AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

PREPARED BY
BRISCO AND O'ROURKE
1425331 ONTARIO LIMITED
SERVING THE PETROLEUM INDUSTRY
THROUGHOUT ONTARIO
WELLS, CONSTRUCTION AND TECHNICAL SURVEYING
DIGITAL MAPPING
LAND AND LEASE SURVEYS
OFFICE (519) 351-5073
CELL (519) 401-5073
FAX (519) 351-3119
P.O. BOX 327 - N7M-5K4
CHATHAM, ONTARIO

NOTE BENCH MARK
ELEVATIONS ARE REFERRED TO GEODETIC DATUM AND
REFERENCE BENCH MARK BEING
MONUMENT No.72U095 BAYFIELD
ELEVATION = 199.914

NOTE GEODETIC HORIZONTAL CONTROL
U.T.M. CO-ORDINATES ARE GEODETIC (DATUM NAD 83)
AND REFERRED TO MONUMENTS
00819711196 AND 00819711197

PREPARED FOR
BAYFIELD RESOURCES INC.

FILE NO. 08-4866 PLAN NO. TRI6307.DWG

SEPTEMBER 14, 2009

TIMOTHY J. O'ROURKE C.S.T. A.C.E.T.

AUTHORIZED BY THE MINISTER OF NATURAL RESOURCES
UNDER THE PETROLEUM RESOURCES ACT OF ONTARIO

**BAYFIELD RESOURCES ET AL #3 (Horiz. #1)
BAYFIELD RESOURCES ET AL #3 (Horiz. #1-Lat. #1)
STANLEY 3-7-XI**

DRILLING PROGRAM

TABLE OF CONTENTS

SECTION 1.0

GENERAL DATA

Section 1.1	Well Summary
Section 1.2	Potential Problems
Section 1.3	Contact Numbers

SECTION 2.0

GEOLOGICAL PROGNOSIS

SECTION 3.0

CASING AND CEMENTING SUMMARY

Section 3.1	Summary
Section 3.2	Wellbore Diagram
Section 3.3	Directional Planning Report

SECTION 4.0

DRILLING PROCEDURES

Section 4.1	Pre Spud
Section 4.2	Conductor Casing
Section 4.3	Surface Hole and Surface Casing
Section 4.4	1 st Intermediate Hole & Intermediate Casing
Section 4.5	2 nd Intermediate Hole & Production Casing
Section 4.6	Horiz. #1 Main hole, Horiz. #1-Lat. #1 Main hole

SECTION 5.0

REPORTING PROCEDURES

Section 5.1	Tower Sheets
Section 5.2	Worker Injury

SECTION 6.0

SAFETY AND PROCEDURES

Section 6.1	General Safety
Section 6.2	Well Control

SECTION 1.0 – GENERAL DATA

Section 1.1 – Well Summary

Well Name:	Bayfield Resources et al #3 (Horiz. #1) Stanley 3-7-XI Bayfield Resources et al #3 (Horiz. #1-Lat. #1) Stanley 3-7-XI
Operator:	Bayfield Resources Inc.
Surface Hole Location:	Lot 7, Concession XI, Stanley Township, Huron County
Surface Hole Coordinates:	184.25 m North; 325.70m East Lat: N43° 28' 47.399", Long: E81° 38' 44.760"
Bottom Hole Location:	Horiz. #1: Lot 7, Concession XI, Stanley Township, Huron County Horiz. #1-Lat. #1: Lot 7, Concession XII, Stanley Township, Huron County
Bottom Hole Coordinates:	Horiz. #1: Lat: N43° 28' 53.280", Long: E81° 38' 52.320" Horiz. #1-Lat. #1: Lat: N43° 28' 46.380", Long: E81° 39' 0.420"
Ground Elevation:	264.7m
KB Elevation:	269.0m
Total Depth:	Horiz. #1: 696.9mMD/522.7mTVD Horiz. #1-Lat. #1: 903.0mMD/522.7mTVD
Target Formation:	Guelph
Logging Program:	CBL-Gr – 340mm csg, 245mm csg, and 178mm csg Gr-CNL-Z Density from 178mm casing seat to 245mm casing seat, Gr-CNL to surface Vertilog on 178mm casing
Spud Date:	As soon as OEB approvals are received for Stanley pool conversion to storage

Section 1.2 – Potential Problems

- 1) There are gravel, boulders, and sand in the overburden that will cause hole cleaning problems and may contain fresh water. The glacial till must be shut

off with the conductor casing or a cement squeeze or problems will be experienced drilling the surface hole. The gravel and sand zone is from surface to the top of the bedrock at 57 meters.

- 2) The bedrock surface is karsted and fractured so the wellbore face will not likely support a column of fresh water. Fluid losses should be expected. If the uphole gravels and sands are not completely shut off with the conductor casing and/or cement squeezes prior to entering the bedrock, the gravels and sands could be pulled into the hole once the lost circulation is encountered, with potential stuck drill string and casing running problems.
- 3) Local fresh ground water wells withdraw from about the 220 to 295 ft (67 to 90m) depth at the bedrock surface. The aquifer transitions from fresh water to sulphur water is within the top of the Lucas formation. The surface hole needs to be TD'd prior to entering the sulphur water, yet below all potable water. Stop drilling surface hole at any indication of sulphur water or at 120m, whichever is shallower.
- 4) There is potential for hole caving and instability from the bedrock surface to about 160m due to karsting. Depending upon the severity of the caving/hole instability, consideration will be given to cement squeezes and/or plugging the hole back in stages, to provide stability to the hole and to reduce losses during the cementing of the casing.
- 5) There is potential for loss circulation while cementing the 340mm and 244mm casings. Depending upon the severity of the problem, consideration will be given to running 200%± excess cement.
- 6) Up to 11 meters of E Salt, 6 meters of D Salt and up to 50 meters of B Salt will be present while drilling through the Salina section. The drilling fluid will need to be switched to saturated brine prior to drilling this section of the well. The B Salt will be penetrated while building angle prior to setting the 178mm casing. If saturated brine is not used during this part of the hole, consistent build rates would be difficult since the fresh waters would wash out salt and undermine the drill bit and cause a drop in inclination angle.
- 7) Be cautious while building angle through the B Salt section to ensure we do not loose angle due to washouts since the formation is so soft relative to the other Salina zones.
- 8) Due to the low reservoir pressure, loss circulation may be encountered while drilling through the Guelph reef. If loss circulation is experienced, haul in additional fluid to keep up with losses rather than trying to heal up the loss circulation with LCM material. Since the Guelph reef is the target, we cannot plug up permeability with LCM material with the hope of being able to remove the LCM material during completion operations. If complete lost

circulation exists, be cautious while obtaining MWD mud pulse surveys that the drill string does not get differentially stuck while stationary. If partial circulation can be obtained, use viscous mud sweeps to try to keep the wellbore as clean as possible.

Section 1.3 – Contact Numbers

Bayfield Resources Inc.

Jane Lowrie	-	President	-	Office (519) 657-2151 Fax (519) 657-4296 Mobile(519) 871-9096
Neil Hoey	-	Geologist	-	Office (519) 472-4776 Fax (519) 472-4776 Mobile(519) 649-6918
Jim McIntosh	-	Supervisor/Examiner	-	Office (519) 657-2151 Fax (519) 472-7897 Mobile(519) 871-9542

Schlumberger Well Services

Jay Rookes	-	Cell Leader	-	Office (519) 652-5053 Fax (519) 652-6002 Mobile(519) 494-5292
------------	---	-------------	---	---

Holland Water Hauling Ltd.

Cliff Holland	-	Owner/Operator	-	Office (519) 798-3929 Mobile(519) 524-0824
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Wellmaster Pipe and Supply

Bill Hedges	-	Sales	-	Office (519) 688-0500 Fax (519) 688-0563
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Government & Other Agencies

MNR	-	Petroleum Resources	-	Office (519) 873-4634 Fax (519) 873-4645
MOE	-	Spills Reporting	-	(800) 268-6060
MOL	-	Health & Safety	-	(800) 265-1676
OPP	-	Communication Center		(800) 265-7191 911

Section 2.0 – Geological Prognosis

Well: Bayfield Resources et al #3 (Horiz. #1)

Location: Stanley 3-7-XI

Ground
Elevation: 264.7 m

KB Elevation: 269.0 m

Geological Formation	Formation Depth (mMD)	(mTVD)	Elevation (m ss)	Thickness (mTVD)	Fluid Type	Fluid Depth (mFRF)	Oil/ Gas	Depth (mTVD)	Pressure (kPa)
Drift	4.3	4.3	264.7	89.7	Fresh	11			
Dundee	94.0	94.0	175.0	10.5	Fresh	95			
Lucas	104.5	104.5	164.5	39.5	Sulphur	130+			
Amherstburg	144.0	144.0	125.0	27.0					
Bois Blanc	171.0	171.0	98.0	66.0					
Bass Islands	237.0	237.0	32.0	50.0					
G Unit	287.0	287.0	-18.0	7.5					
F Unit	294.5	294.5	-25.5	27.0					
E Unit	321.5	321.5	-52.5	49.0					
D Unit	370.5	370.5	-101.5	8.5					
C Unit	379.0	379.0	-110.0	12.0					
B Unit	391.0	391.0	-122.0	6.5					
B Salt	397.5	397.5	-128.5	58.5					
B Anhydrite	463.2	456.0	-187.0	0.5					
A-2 Carbonate	463.9	456.5	-187.5	19.4					
A-2 Shale	496.4	475.9	-206.9	1.6					
A-2 Anhydrite	500.0	477.5	-208.5	7.4					
Guelph	522.8	484.9	-215.9	101.1			Gas	500- 523	
Total Depth	696.9	522.7							

Well: Bayfield Resources et al #3 (Horiz. #1-Lat. #1)

Location: Stanley 3-7-XI

Ground
Elevation: 264.7 m

KB Elevation: 269.0 m

Geological Formation	Formation Depth (mMD)	(mTVD)	Elevation (m ss)	Thickness (mTVD)	Fluid Type	Fluid Depth (mFRF)	Oil/ Gas	Depth (mTVD)	Pressure (kPa)
Drift	4.3	4.3	264.7	89.7	Fresh	11			
Dundee	94.0	94.0	175.0	10.5	Fresh	95			
Lucas	104.5	104.5	164.5	39.5	Sulphur	130+			
Amherstburg	144.0	144.0	125.0	27.0					
Bois Blanc	171.0	171.0	98.0	66.0					
Bass Islands	237.0	237.0	32.0	50.0					
G Unit	287.0	287.0	-18.0	7.5					
F Unit	294.5	294.5	-25.5	27.0					
E Unit	321.5	321.5	-52.5	49.0					
D Unit	370.5	370.5	-101.5	8.5					
C Unit	379.0	379.0	-110.0	12.0					
B Unit	391.0	391.0	-122.0	6.5					
B Salt	397.5	397.5	-128.5	58.5					
B Anhydrite	463.2	456.0	-187.0	0.5					
A-2 Carbonate	463.9	456.5	-187.5	19.4					
A-2 Shale	496.4	475.9	-206.9	1.6					
A-2 Anhydrite	500.0	477.5	-208.5	7.4					
Guelph	522.8	484.9	-215.9	101.1			Gas	500- 523	
Total Depth	903.0	522.7							

Section 3.0 – Casing and Cementing Summary

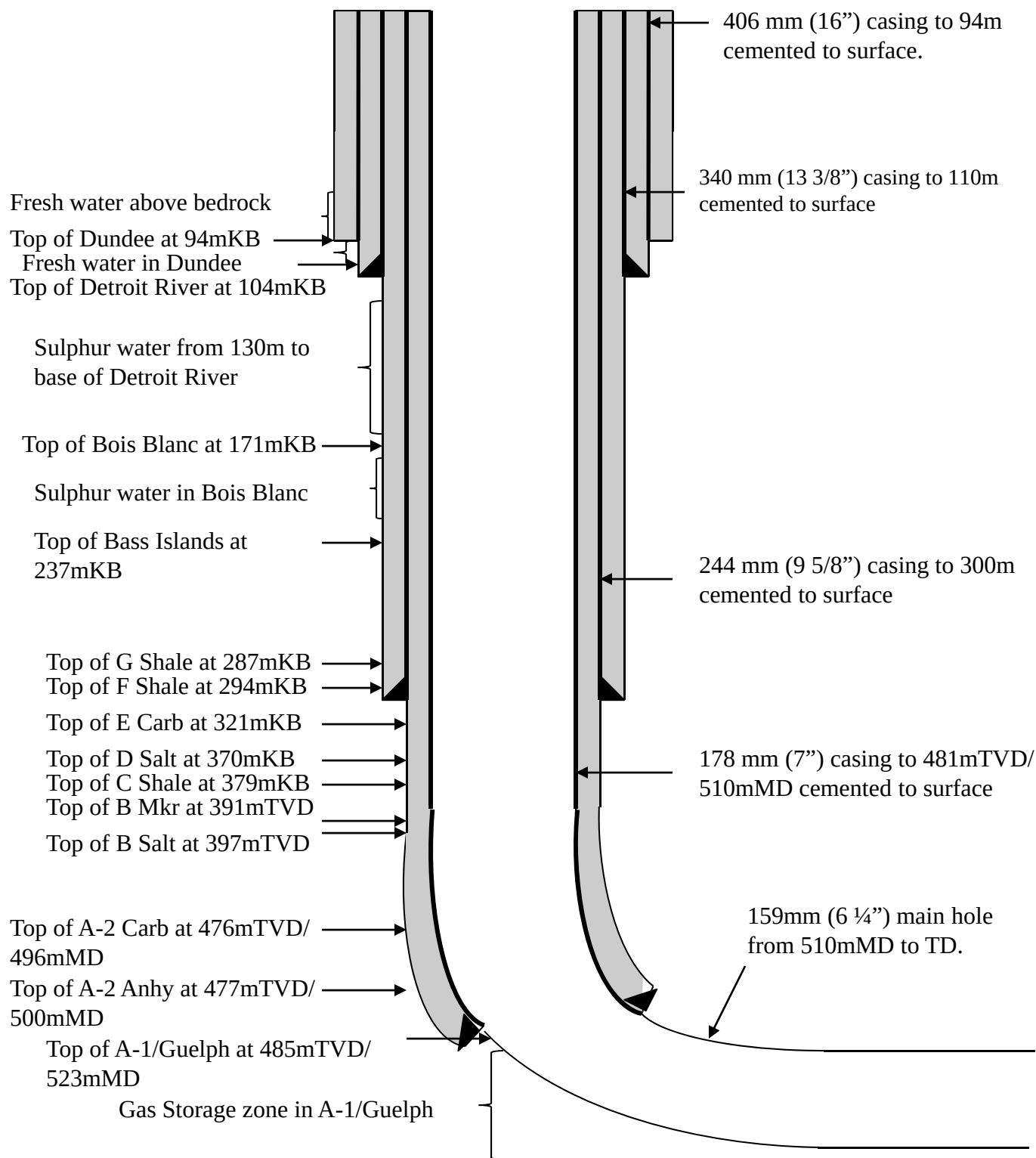
Section 3.1 - Summary

Hole Size (mm)	Casing Size (mm)	Casing Grade	Casing Weight (kg/m)	Setting Depth (mMD)	How Set
508	406	H-40	96.7	94	Cemented to surface with RFC Light plus 2% CaCl ₂ plus Cemnet. Cement volumes will be calculated with a minimum 200% excess.
384	340	LS	81.1	110	Cemented to surface with RFC Light plus 2%Ca Cl ₂ plus Cemnet tailed with Class G 0-1-0% plus 2%CaCl ₂ . Cement volumes will be calculated with a minimum 200% excess. Top squeeze or spaghetti string the annulus if cement returns not received on main job.
311	244	J-55	53.6	300	Cemented to surface with RFC Light plus 2%Ca Cl ₂ plus Cemnet tailed with Class G 0-1-0% plus 2%CaCl ₂ . Cement volumes will be calculated with a minimum 150% excess on the RFC Light cement and a minimum 50% excess on the neat cement.
222	178	K-55	29.76	510	Cemented to surface with Class G 0-1-0% plus 20% salt tailed in with Class G 0-1-0% plug 2%CaCl ₂ . Cement volumes will be calculated with a minimum 50% excess. Depending upon hole conditions, consideration may be given to running gel cement across porous zone(s).

Main Hole: Prior to setting the 178mm casing, hole angle will have been built to approximately 70°. The 159mm main hole will continue to build angle until horizontal, with the 159mm Horiz. #1-Lat. #1 lateral drilled out of the side of the initial horizontal.

Wellbore Schematic Diagram

Bayfield Resources et al #3 (Horiz. #1): Stanley 9-8-NBR Wellbore



TRIBUTE RESOURCES

Project: STANLEY
 Site: (Stanley 3-7-XI) Tribute #32
 Well: Tribute etal
 Wellbore: Tribute #32 Leg #1
 Design: Hz Leg #1 P3 (mb/sh)

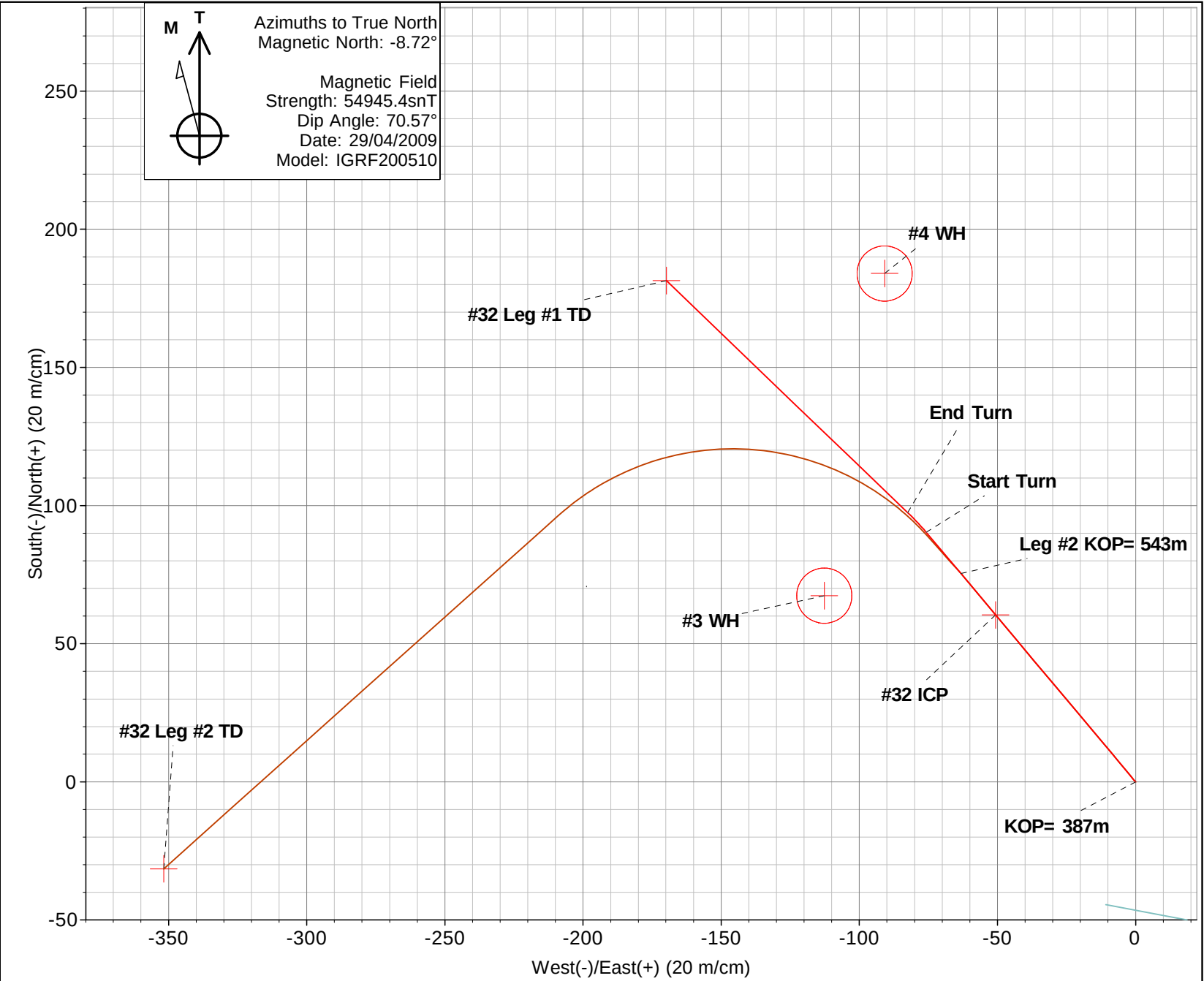
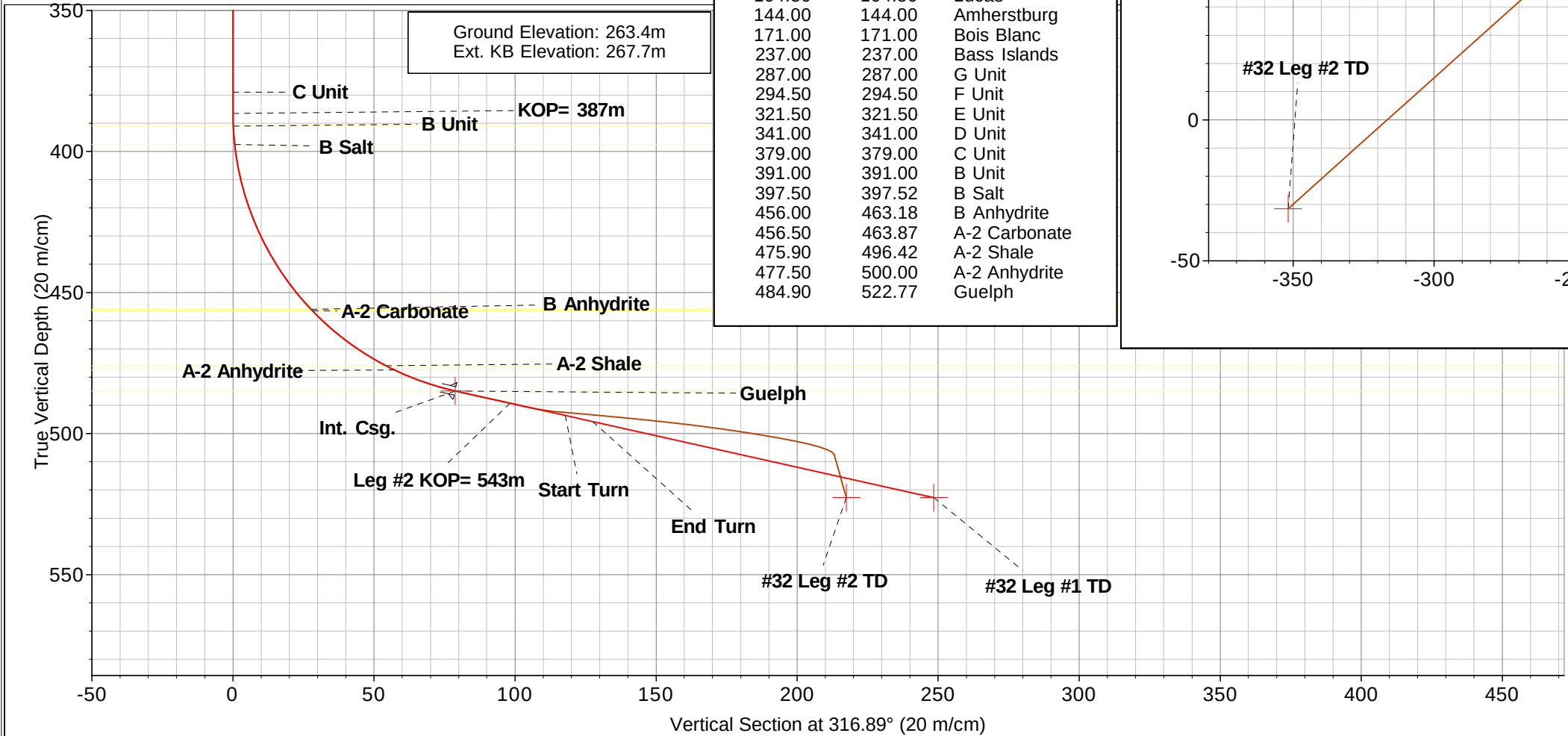


SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	
2	386.53	0.00	0.00	386.53	0.00	0.00	0.000	0.00	0.00	
3	522.77	77.46	320.00	484.90	60.43	-50.71	17.058	320.00	78.77	#32 ICP
4	542.77	77.46	320.00	489.24	75.39	-63.26	0.000	0.00	98.27	
5	562.77	77.46	320.00	493.58	90.34	-75.81	0.000	0.00	117.76	
6	572.77	77.46	313.85	495.76	97.47	-82.47	18.000	-90.65	127.52	
7	696.87	77.46	313.85	522.70	181.40	-169.83	0.000	0.00	248.49	#32 Leg #1 TD

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4.30	4.30	Drift
94.00	94.00	Dundee
104.50	104.50	Lucas
144.00	144.00	Amherstburg
171.00	171.00	Bois Blanc
237.00	237.00	Bass Islands
287.00	287.00	G Unit
294.50	294.50	F Unit
321.50	321.50	E Unit
341.00	341.00	D Unit
379.00	379.00	C Unit
391.00	391.00	B Unit
397.50	397.52	B Salt
456.00	463.18	B Anhydrite
456.50	463.87	A-2 Carbonate
475.90	496.42	A-2 Shale
477.50	500.00	A-2 Anhydrite
484.90	522.77	Guelph



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
#3 WH	0.00	67.38	-112.68	Circle (Radius: 10.00)
#4 WH	0.00	183.99	-90.85	Circle (Radius: 10.00)
#32 ICP	484.90	60.43	-50.71	Point
#32 Leg #1 TD	522.70	181.40	-169.83	Point
#32 Leg #2 TD	522.70	-31.46	-351.80	Point

ANNOTATIONS

TVD	MD	Annotation
386.53	386.53	KOP= 387m
489.24	542.77	Leg #2 KOP= 543m
493.59	562.77	Start Turn
495.76	572.77	End Turn
522.70	696.86	Leg #1 TD= 697m

Database:	EDM 2003.21 Phoenix	Local Co-ordinate Reference:	Site (Stanley 3-7-XI) Tribute #32
Company:	TRIBUTE RESOURCES	TVD Reference:	Est. KB. @ 267.70m (Original Well Elev)
Project:	STANLEY	MD Reference:	Est. KB. @ 267.70m (Original Well Elev)
Site:	(Stanley 3-7-XI) Tribute #32	North Reference:	True
Well:	Tribute etal	Survey Calculation Method:	Minimum Curvature
Wellbore:	Tribute #32 Leg #1		
Design:	Hz Leg #1 P3 (mb/sh)		

Project	STANLEY		
Map System:	Universal Transverse Mercator	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 17N (84 W to 78 W)		

Site	(Stanley 3-7-XI) Tribute #32			
Site Position:		Northing:	4,814,304.23 m	Latitude: 43° 28' 47.400 N
From:	Lat/Long	Easting:	447,775.99 m	Longitude: 81° 38' 44.760 W
Position Uncertainty:	0.00 m	Slot Radius:		Grid Convergence: -0.44 °

Well	Tribute etal			
Well Position	+N/-S	0.00 m	Northing:	4,814,304.23 m
	+E/-W	0.00 m	Easting:	447,775.99 m
			Latitude:	43° 28' 47.400 N
			Longitude:	81° 38' 44.760 W
Position Uncertainty	0.00 m	Wellhead Elevation:		Ground Level: 263.40 m

Wellbore	Tribute #32 Leg #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	29/04/2009	-8.72	70.57	54,945

Design	Hz Leg #1 P3 (mb/sh)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (m)	+N/-S (m)	+E/-W (m)	Direction (°)
	0.00	0.00	0.00	316.89

Plan Sections										
Measured Depth (m)	Inclination (°)	Azimuth (°)	Vertical Depth (m)	+N/-S (m)	+E/-W (m)	Dogleg Rate (°/30m)	Build Rate (°/30m)	Turn Rate (°/30m)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.00	
386.53	0.00	0.00	386.53	0.00	0.00	0.000	0.000	0.000	0.00	
522.77	77.46	320.00	484.90	60.43	-50.71	17.058	17.058	0.000	320.00	#32 ICP
542.77	77.46	320.00	489.24	75.39	-63.26	0.000	0.000	0.000	0.00	
562.77	77.46	320.00	493.58	90.34	-75.81	0.000	0.000	0.000	0.00	
572.77	77.46	313.85	495.76	97.47	-82.47	18.000	0.005	-18.440	-90.65	
696.87	77.46	313.85	522.70	181.40	-169.83	0.000	0.000	0.000	0.00	#32 Leg #1 TD

Database:	EDM 2003.21 Phoenix	Local Co-ordinate Reference:	Site (Stanley 3-7-XI) Tribute #32
Company:	TRIBUTE RESOURCES	TVD Reference:	Est. KB. @ 267.70m (Original Well Elev)
Project:	STANLEY	MD Reference:	Est. KB. @ 267.70m (Original Well Elev)
Site:	(Stanley 3-7-XI) Tribute #32	North Reference:	True
Well:	Tribute etal	Survey Calculation Method:	Minimum Curvature
Wellbore:	Tribute #32 Leg #1		
Design:	Hz Leg #1 P3 (mb/sh)		

Planned Survey								
Measured Depth (m)	Inclination (°)	Azimuth (°)	Vertical Depth (m)	Subsea Depth (m)	+N/-S (m)	+E/-W (m)	Vertical Section (m)	Dogleg Rate (°/30m)
#4 WH - #3 WH								
0.00	0.00	0.00	0.00	267.70	0.00	0.00	0.00	0.000
Drift								
4.30	0.00	0.00	4.30	263.40	0.00	0.00	0.00	0.000
Dundee								
94.00	0.00	0.00	94.00	173.70	0.00	0.00	0.00	0.000
Lucas								
104.50	0.00	0.00	104.50	163.20	0.00	0.00	0.00	0.000
Amherstburg								
144.00	0.00	0.00	144.00	123.70	0.00	0.00	0.00	0.000
Bois Blanc								
171.00	0.00	0.00	171.00	96.70	0.00	0.00	0.00	0.000
Bass Islands								
237.00	0.00	0.00	237.00	30.70	0.00	0.00	0.00	0.000
G Unit								
287.00	0.00	0.00	287.00	-19.30	0.00	0.00	0.00	0.000
F Unit								
294.50	0.00	0.00	294.50	-26.80	0.00	0.00	0.00	0.000
E Unit								
321.50	0.00	0.00	321.50	-53.80	0.00	0.00	0.00	0.000
D Unit								
341.00	0.00	0.00	341.00	-73.30	0.00	0.00	0.00	0.000
C Unit								
379.00	0.00	0.00	379.00	-111.30	0.00	0.00	0.00	0.000
KOP= 387m								
386.53	0.00	0.00	386.53	-118.83	0.00	0.00	0.00	0.000
390.00	1.97	320.00	390.00	-122.30	0.05	-0.04	0.06	17.034
B Unit								
391.00	2.54	320.00	391.00	-123.30	0.08	-0.06	0.10	17.058
B Salt								
397.52	6.25	320.00	397.50	-129.80	0.46	-0.38	0.60	17.058
420.00	19.03	320.00	419.39	-151.69	4.22	-3.54	5.50	17.058
450.00	36.09	320.00	445.89	-178.19	14.81	-12.43	19.30	17.058
B Anhydrite								
463.18	43.58	320.00	456.00	-188.30	21.27	-17.85	27.73	17.058
A-2 Carbonate								
463.87	43.97	320.00	456.50	-188.80	21.64	-18.16	28.21	17.058
480.00	53.14	320.00	467.16	-199.46	30.89	-25.92	40.27	17.058
A-2 Shale								
496.42	62.48	320.00	475.90	-208.20	41.52	-34.84	54.12	17.058
A-2 Anhydrite								
500.00	64.51	320.00	477.50	-209.80	43.98	-36.90	57.33	17.041
510.00	70.20	320.00	481.35	-213.65	51.05	-42.83	66.54	17.063
Guelph - Int. Csg. - #32 ICP								
522.77	77.46	320.00	484.90	-217.20	60.43	-50.71	78.77	17.055
540.00	77.46	320.00	488.64	-220.94	73.32	-61.52	95.57	0.002
Leg #2 KOP= 543m								
542.77	77.46	320.00	489.24	-221.54	75.39	-63.26	98.27	0.000
Start Turn								
562.77	77.46	320.00	493.59	-225.89	90.35	-75.81	117.76	0.000

Database:	EDM 2003.21 Phoenix	Local Co-ordinate Reference:	Site (Stanley 3-7-XI) Tribute #32
Company:	TRIBUTE RESOURCES	TVD Reference:	Est. KB. @ 267.70m (Original Well Elev)
Project:	STANLEY	MD Reference:	Est. KB. @ 267.70m (Original Well Elev)
Site:	(Stanley 3-7-XI) Tribute #32	North Reference:	True
Well:	Tribute etal	Survey Calculation Method:	Minimum Curvature
Wellbore:	Tribute #32 Leg #1		
Design:	Hz Leg #1 P3 (mb/sh)		

Planned Survey								
Measured Depth (m)	Inclination (°)	Azimuth (°)	Vertical Depth (m)	Subsea Depth (m)	+N/-S (m)	+E/-W (m)	Vertical Section (m)	Dogleg Rate (°/30m)
570.00	77.45	315.55	495.16	-227.46	95.57	-80.55	124.82	18.006
End Turn								
572.77	77.46	313.85	495.76	-228.06	97.47	-82.47	127.52	17.985
600.00	77.46	313.85	501.67	-233.97	115.89	-101.64	154.06	0.000
630.00	77.46	313.85	508.18	-240.48	136.18	-122.76	183.31	0.000
660.00	77.46	313.85	514.70	-247.00	156.47	-143.88	212.55	0.000
#32 Leg #2 TD								
681.01	77.46	313.85	519.26	-251.56	170.68	-158.67	233.03	0.000
690.00	77.46	313.85	521.21	-253.51	176.75	-164.99	241.79	0.000
Leg #1 TD= 697m								
696.86	77.46	313.85	522.70	-255.00	181.39	-169.82	248.48	0.000
#32 Leg #1 TD								
696.87	77.46	313.85	522.70	-255.00	181.40	-169.83	248.49	0.000

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (m)	+N/-S (m)	+E/-W (m)	Northing (m)	Easting (m)	Latitude	Longitude
- hit/miss target									
- Shape									
#4 WH	0.00	0.00	0.00	183.99	-90.85	4,814,488.92	447,686.58	43° 28' 53.364 N	81° 38' 48.804 W
- plan misses target center by 205.20m at 0.00m MD (0.00 TVD, 0.00 N, 0.00 E)									
- Circle (radius 10.00)									
#3 WH	0.00	0.00	0.00	67.38	-112.68	4,814,372.48	447,663.84	43° 28' 49.584 N	81° 38' 49.776 W
- plan misses target center by 131.29m at 0.00m MD (0.00 TVD, 0.00 N, 0.00 E)									
- Circle (radius 10.00)									
#32 ICP	0.00	0.00	484.90	60.43	-50.71	4,814,365.05	447,725.76	43° 28' 49.359 N	81° 38' 47.017 W
- plan hits target center									
- Point									
#32 Leg #2 TD	0.00	0.00	522.70	-31.46	-351.80	4,814,275.50	447,423.96	43° 28' 46.380 N	81° 39' 0.420 W
- plan misses target center by 279.59m at 681.01m MD (519.26 TVD, 170.68 N, -158.67 E)									
- Point									
#32 Leg #1 TD	0.00	0.00	522.70	181.40	-169.83	4,814,486.94	447,607.58	43° 28' 53.280 N	81° 38' 52.320 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (m)	Vertical Depth (m)	Name		Casing Diameter (mm)	Hole Diameter (mm)
522.77	484.90	Int. Csg.			

Database:	EDM 2003.21 Phoenix	Local Co-ordinate Reference:	Site (Stanley 3-7-XI) Tribute #32
Company:	TRIBUTE RESOURCES	TVD Reference:	Est. KB. @ 267.70m (Original Well Elev)
Project:	STANLEY	MD Reference:	Est. KB. @ 267.70m (Original Well Elev)
Site:	(Stanley 3-7-XI) Tribute #32	North Reference:	True
Well:	Tribute etal	Survey Calculation Method:	Minimum Curvature
Wellbore:	Tribute #32 Leg #1		
Design:	Hz Leg #1 P3 (mb/sh)		

Formations						
Measured Depth (m)	Vertical Depth (m)	Name	Lithology	Dip (°)	Dip Direction (°)	
4.30	4.30	Drift		0.00		
94.00	94.00	Dundee		0.00		
104.50	104.50	Lucas		0.00		
144.00	144.00	Amherstburg		0.00		
171.00	171.00	Bois Blanc		0.00		
237.00	237.00	Bass Islands		0.00		
287.00	287.00	G Unit		0.00		
294.50	294.50	F Unit		0.00		
321.50	321.50	E Unit		0.00		
341.00	341.00	D Unit		0.00		
379.00	379.00	C Unit		0.00		
391.00	391.00	B Unit		0.00		
397.52	397.50	B Salt		0.00		
463.18	456.00	B Anhydrite		0.00		
463.87	456.50	A-2 Carbonate		0.00		
496.42	475.90	A-2 Shale		0.00		
500.00	477.50	A-2 Anhydrite		0.00		
522.77	484.90	Guelph		0.00		

Plan Annotations					
Measured Depth (m)	Vertical Depth (m)	Local Coordinates			
		+N/-S (m)	+E/-W (m)	Comment	
386.53	386.53	0.00	0.00	KOP= 387m	
542.77	489.24	75.39	-63.26	Leg #2 KOP= 543m	
562.77	493.59	90.35	-75.81	Start Turn	
572.77	495.76	97.47	-82.47	End Turn	
696.86	522.70	181.39	-169.82	Leg #1 TD= 697m	

Database:	EDM 2003.21 Phoenix	Local Co-ordinate Reference:	Site (Stanley 3-7-XI) Tribute #32
Company:	TRIBUTE RESOURCES	TVD Reference:	Est. KB. @ 267.70m (Original Well Elev)
Project:	STANLEY	MD Reference:	Est. KB. @ 267.70m (Original Well Elev)
Site:	(Stanley 3-7-XI) Tribute #32	North Reference:	True
Well:	Tribute etal	Survey Calculation Method:	Minimum Curvature
Wellbore:	Tribute #32 Leg #2		
Design:	Hz Leg #2 P3 (mb/sh)		

Project	STANLEY		
Map System:	Universal Transverse Mercator	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 17N (84 W to 78 W)		

Site	(Stanley 3-7-XI) Tribute #32			
Site Position:		Northing:	4,814,304.23 m	Latitude: 43° 28' 47.400 N
From:	Lat/Long	Easting:	447,775.99 m	Longitude: 81° 38' 44.760 W
Position Uncertainty:	0.00 m	Slot Radius:		Grid Convergence: -0.44 °

Well	Tribute etal			
Well Position	+N/-S	0.00 m	Northing:	4,814,304.23 m
	+E/-W	0.00 m	Easting:	447,775.99 m
			Longitude:	81° 38' 44.760 W
Position Uncertainty	0.00 m	Wellhead Elevation:	Ground Level:	263.40 m

Wellbore	Tribute #32 Leg #2				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	29/04/2009	-8.72	70.57	54,945

Design	Hz Leg #2 P3 (mb/sh)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	542.77
Vertical Section:	Depth From (TVD) (m)	+N/-S (m)	+E/-W (m)	Direction (°)
	0.00	0.00	0.00	264.89

Plan Sections										
Measured Depth (m)	Inclination (°)	Azimuth (°)	Vertical Depth (m)	+N/-S (m)	+E/-W (m)	Dogleg Rate (°/30m)	Build Rate (°/30m)	Turn Rate (°/30m)	TFO (°)	Target
542.77	77.46	320.00	489.24	75.39	-63.26	0.000	0.000	0.000	0.00	
546.27	76.42	318.13	490.03	77.97	-65.49	18.000	-8.943	-16.036	-120.00	
561.32	85.45	318.13	492.40	89.02	-75.40	18.000	18.000	0.000	0.00	
710.63	85.45	228.18	507.45	96.38	-208.92	18.000	0.001	-18.072	-94.53	
902.97	85.45	228.18	522.70	-31.46	-351.80	0.000	0.000	0.000	0.00	#32 Leg #2 TD

Database:	EDM 2003.21 Phoenix	Local Co-ordinate Reference:	Site (Stanley 3-7-XI) Tribute #32
Company:	TRIBUTE RESOURCES	TVD Reference:	Est. KB. @ 267.70m (Original Well Elev)
Project:	STANLEY	MD Reference:	Est. KB. @ 267.70m (Original Well Elev)
Site:	(Stanley 3-7-XI) Tribute #32	North Reference:	True
Well:	Tribute etal	Survey Calculation Method:	Minimum Curvature
Wellbore:	Tribute #32 Leg #2		
Design:	Hz Leg #2 P3 (mb/sh)		

Planned Survey								
Measured Depth (m)	Inclination (°)	Azimuth (°)	Vertical Depth (m)	Subsea Depth (m)	+N/-S (m)	+E/-W (m)	Vertical Section (m)	Dogleg Rate (°/30m)
390.00	1.97	320.00	390.00	-122.30	0.05	-0.04	0.03	0.000
420.00	19.03	320.00	419.39	-151.69	4.22	-3.54	3.15	17.058
450.00	36.09	320.00	445.89	-178.19	14.81	-12.43	11.06	17.058
480.00	53.14	320.00	467.16	-199.46	30.89	-25.92	23.07	17.058
510.00	70.20	320.00	481.35	-213.65	51.05	-42.83	38.12	17.058
Guelph - Int. Csg. - #32 ICP								
522.77	77.46	320.00	484.90	-217.20	60.43	-50.71	45.13	17.055
540.00	77.46	320.00	488.64	-220.94	73.32	-61.52	54.75	0.002
Leg #2 KOP= 543m								
542.77	77.46	320.00	489.24	-221.54	75.39	-63.26	56.29	0.000
546.27	76.42	318.13	490.03	-222.33	77.97	-65.49	58.29	18.000
561.32	85.45	318.13	492.40	-224.70	89.02	-75.40	67.17	18.000
570.00	85.05	312.92	493.12	-225.42	95.19	-81.46	72.66	18.000
600.00	84.03	294.86	496.00	-228.30	111.78	-106.14	95.77	18.000
630.00	83.59	276.76	499.26	-231.56	119.87	-134.72	123.51	18.000
#32 Leg #1 TD								
660.00	83.78	258.65	502.59	-234.89	118.68	-164.39	153.16	18.000
690.00	84.59	240.58	505.65	-237.95	108.33	-192.24	181.83	18.000
End Turn								
710.63	85.45	228.18	507.45	-239.75	96.38	-208.92	199.50	18.000
720.00	85.45	228.18	508.19	-240.49	90.15	-215.88	206.99	0.005
750.00	85.45	228.18	510.57	-242.87	70.21	-238.16	230.96	0.000
780.00	85.45	228.18	512.95	-245.25	50.27	-260.45	254.94	0.000
810.00	85.45	228.18	515.33	-247.63	30.33	-282.74	278.91	0.000
840.00	85.45	228.18	517.71	-250.01	10.39	-305.03	302.89	0.000
870.00	85.45	228.18	520.09	-252.39	-9.55	-327.31	326.86	0.000
900.00	85.45	228.18	522.46	-254.76	-29.49	-349.60	350.84	0.000
Leg #2 TD= 903m								
902.96	85.45	228.18	522.70	-255.00	-31.45	-351.80	353.20	0.000
#32 Leg #2 TD								
902.97	85.45	228.18	522.70	-255.00	-31.46	-351.80	353.21	0.005

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (m)	+N/-S (m)	+E/-W (m)	Northing (m)	Easting (m)	Latitude	Longitude
#32 Leg #2 TD - plan hits target center - Point	0.00	0.00	522.70	-31.46	-351.80	4,814,275.50	447,423.96	43° 28' 46.380 N	81° 39' 0.420 W

Casing Points					
Measured Depth (m)	Vertical Depth (m)	Name	Casing Diameter (mm)	Hole Diameter (mm)	
522.77	484.90	Int. Csg.			

Database:	EDM 2003.21 Phoenix	Local Co-ordinate Reference:	Site (Stanley 3-7-XI) Tribute #32
Company:	TRIBUTE RESOURCES	TVD Reference:	Est. KB. @ 267.70m (Original Well Elev)
Project:	STANLEY	MD Reference:	Est. KB. @ 267.70m (Original Well Elev)
Site:	(Stanley 3-7-XI) Tribute #32	North Reference:	True
Well:	Tribute etal	Survey Calculation Method:	Minimum Curvature
Wellbore:	Tribute #32 Leg #2		
Design:	Hz Leg #2 P3 (mb/sh)		

Formations						
Measured Depth (m)	Vertical Depth (m)	Name	Lithology	Dip (°)	Dip Direction (°)	
4.30	4.30	Drift		0.00		
94.00	94.00	Dundee		0.00		
104.50	104.50	Lucas		0.00		
144.00	144.00	Amherstburg		0.00		
171.00	171.00	Bois Blanc		0.00		
237.00	237.00	Bass Islands		0.00		
287.00	287.00	G Unit		0.00		
294.50	294.50	F Unit		0.00		
321.50	321.50	E Unit		0.00		
341.00	341.00	D Unit		0.00		
379.00	379.00	C Unit		0.00		
391.00	391.00	B Unit		0.00		
397.52	397.50	B Salt		0.00		
463.18	456.00	B Anhydrite		0.00		
463.87	456.50	A-2 Carbonate		0.00		
496.42	475.90	A-2 Shale		0.00		
500.00	477.50	A-2 Anhydrite		0.00		
522.77	484.90	Guelph		0.00		

Plan Annotations					
Measured Depth (m)	Vertical Depth (m)	Local Coordinates			
		+N/-S (m)	+E/-W (m)	Comment	
542.77	489.24	75.39	-63.26	Leg #2 KOP= 543m	
710.63	507.45	96.38	-208.92	End Turn	
902.96	522.70	-31.45	-351.80	Leg #2 TD= 903m	

Section 4.0 - Drilling Procedures

Section 4.1 - PreSpud

1) Fresh Water Well Samples

Samples from fresh water wells will be taken in compliance with Bayfield Resources Inc.'s fresh water well sampling policy as developed by Stantec. Ensure that copies of these reports are sent to the London office and to Eastern Oilfield Services' office in Bothwell.

2) Site Preparation

Prepare drilling location as follows:

- a) Locate all drainage tiles crossing lease area.
- b) Strip and properly stock pile all soil from the lease
- c) Cut, block, and divert drainage tiles as required
- d) Install fabric and stone to ensure minimal mud is tracked from the location in times of inclement weather.
- e) Construct adequate berms around lease and access road as required. Install an 1800mm by 2 meter long vertical culvert to stabilize the surface ground around the well.

3) Government Notification of Spud

48 hours prior to spud, notify the Ministry of Natural Resources – Petroleum Resources Section by fax @ (519) 873-4645 of the date of commencement of drilling operations.

4) Signs

Install rig signs on access road to lease.

5) Safety Meeting

Conduct a pre-spud safety meeting with each rig. Toolpush and all crew members must be present. A similar meeting shall be conducted with the remaining crew(s) as they come on duty. Additional safety meetings shall be conducted at the Well Site Supervisor's discretion.

Section 4.2 - Conductor Casing

1) Drilling Method

Move in and rig up water well pull-down rig. Mix up viscous spud mud with bentonite gel and hook up air pack. Drill 508mm conductor hole to bedrock top, to an approximate depth of 94m. Note any occurrence of water flows or fluid losses. Only drill into bedrock sufficient distance to obtain a casing seat. Work each joint sufficiently to stabilize that part of the conductor hole prior to making the next connection. Once conductor TD is reached and the hole is stable, dummy trip drill string to ensure the continued stability of the hole for running conductor casing.

2) Cement Squeeze (if necessary)

If major loss circulation of water flows are found in the drift and are not healed with the bentonite gel or if the sands and gravels become unstable, a drilling mud feed rate will be established and a cement squeeze will be performed, using the cement volumes determined by the Well Site Supervisor. WOC 12 hours and drill past the cement squeezed zone and monitor the mud returns to determine if the lost circulation or hole instability has been healed. If necessary, the process will be repeated until full circulation is regained.

3) Casing Installation

Once the conductor hole is stable, RIH 406mm conductor casing, welding each joint. Cut a mule shoe on bottom to assist in rotating in the casing if rotating becomes necessary to reach bedrock. Once bedrock is contacted, rotate casing sufficiently to obtain at least a partial seat. With the casing seated, carefully attempt to pump water down the inside of the 406mm casing to see if circulation can be obtained. If circulation can be obtained, cement in the conductor casing by pumping sufficient cement to cement the 508mm hole/406mm casing to surface with RFC Light cement plus 2%CaCl₂ plus Cemnet with 200% excess displaced with water to within 5 meters of the bedrock top. If cement returns are not received at surface, the annulus between the cement top and surface will be filled with bentonite pellets to secure the conductor. Wait on cement 12 hours to allow RFC to gain as much compressive strength as possible.

Section 4.3 - Surface Hole & Surface Casing

1) Drilling Method

Drill a 384mm hole to approximately 110m to drill past all possible fresh water zones with gel mud and/or air as required. Ensure the drill cutting samples are taken every 3 meters and placed in the sample bags provided by the Ministry of Natural Resources. Record on daily drilling reports any lost circulation zones and associated static levels and any unusual hole conditions. If lost circulation is encountered, cement squeezes may be necessary to seal off the zone sufficiently to ensure a successful surface casing cement job. If sulphur water returns or sulphur water smells are noted prior to reaching the projected 110m surface hole total depth, stop drilling immediately and install the surface casing at that depth. Dummy trip the drill string up to the conductor casing prior to pulling out to run surface casing.

2) Cement Squeeze (if necessary)

If major loss circulation is found in the karsted Dundee and Lucas and is not healed with the bentonite gel, an injection rate will be established and a cement squeeze will be performed, using the cement volumes determined by the Well Site Supervisor. WOC 12 hours and drill past the cement squeezed zone and monitor the mud returns to determine if the lost circulation has been healed. If necessary, the process will be repeated until full circulation is regained.

3) Casing Installation

Depending upon hole conditions encountered, the 340mm casing will be run in the following manner:

- Guide Shoe
- Centralizers coincident with the shoe of the conductor casing
- 340mm casing to surface
- Thread lock guide shoe and 1st joint

Move in and rig up cementers. Ensure pressure recorder is rigged in and serviceable. Pressure charts will be attached to the job ticket. Chain the surface casing and elevators to the rig floor to prevent/minimize hydraulicing. Conduct a pre-job safety meeting to confirm volumes and procedures. Establish circulation using the rig pump. The casing and the hole will be circulated with fresh water by the water well rig for 15 minutes to clean the borehole. Pressure test surface equipment to 60% of internal yield of casing. Pump preflush of 2.0m³ of fresh water, with the addition of loss circulation material if necessary. Ensure that a minimum of 4 cement samples are taken

and represent the cement at the beginning, middle, and end of the cement job. Mix and pump RFC Light plus Cemnet plus 2% CaCl_2 lead cement followed by Class G 0-1-0% neat cement plus Cemnet plus 2% CaCl_2 . A minimum of 200% excess will be pumped to ensure that the 340mm casing is cemented to surface. Displace cement with sufficient water to have cement top inside 340mm casing about 5m above shoe. Close valves and bleed off surface line pressure. Wait on cement at least 12 hours before slacking off casing and checking level in the 406mm/340mm annulus.

Section 4.4 - 1st Intermediate Hole & Intermediate Casing

1) Annular Cement Level Check

If cement is not visible at surface between the 406mm and 340mm casings, run in annulus with spaghetti string and determine the cement top. Move in and rig up cementers and grout annulus to surface with cement. The wait on cement time will be extended a further 48 hours to compensate for pumping of the additional cement. Once 406mm/340mm cement top is at surface, rig out and move off water well pull-down rig.

2) Move on and rig up rotary drilling rig

Move on and rig up rotary drilling rig to drill the balance of the well. Rig up completely. Measure and record the distance from KB to ground and the KB elevation – include these measurements on the daily reports and the next morning report. If necessary, cut 340mm casing stickup and weld on a slip-on weld-on collar, then install a 340mm 8rd by 346mm 14MPa casing bowl at surface. Ensure 60mm side outlets on casing bowl have XH nipples and valves installed.

3) BOP Installation

Monitor cement samples for hardness. If cement samples are set to the satisfaction of the Wellsite Supervisor, proceed with the installation of the BOP's. Install BOP's on the 346mm 14MPa casing flange as per MNR requirements.

4) Logging

Move in and rig up Weatherford Wireline Inc. With hole full of fresh water, run in hole with cement bond log tool and bond log the 340mm casing cement job. Be prepared to perform a pressure pass if required. Rig out Weatherford Wireline and release.

5) Pressure Testing

All pressure tests will be done using fresh water:

- Pressure test casing, blind rams, HCR, and choke manifold to 3500kPa for 10 minutes each and record the results on the daily drilling reports.
- Run in hole drill string with 311mm bit. Pressure test pipe rams and annular to 3500kPa or as high as possible without hydraulicing out the drill string. Drill out cement and 0.5m of new formation. With the hole full of fresh water perform a pressure integrity test to a bottom hole pressure equivalent to 18 kPa per meter and record results on the daily drilling reports.

6) Drilling Method

Drill a 311mm hole $5\text{m} \pm$ into the F Shale formation, to an approximate depth of 300m. Run single shot directional surveys at a minimum every 50 meters to record any hole deviation. Depending upon the severity of loss circulation and/or caving of the hole, consideration will be given to squeezing cement to heal the loss zones and to provide stability to the hole.

Ensure that drill cutting samples are taken every 3 meters and placed in the sample bags provided by the Ministry of Natural Resources. Record on daily reports any influx of fluids (water and/or hydrocarbons), any loss circulation and its rate, and any unusual hole conditions.

7) Casing Installation

Depending upon hole conditions encountered, the 244mm casing will be run in the following manner:

- Guide Shoe
- 244mm joint of casing
- Float Insert or Float Collar
- Centralizers will be installed on the 2nd, 5th, and 8th joint and every 10 joints to surface
- 244mm casing to surface
- Thread lock guide shoe, float collar, and 1st joint

8) Cementing Procedures

Move in and rig up Cementers. Ensure pressure recorder is rigged in and serviceable. Pressure charts will be attached to the job ticket. Conduct a pre-job safety meeting to confirm volumes and procedures. Establish circulation using rig pump. The casing and the hole will be circulated with fresh water for

15 minutes to clean the borehole prior to cementing. Pressure test surface equipment to 60% of internal yield of casing. Pump preflush of 3.0m³ of fresh water, with the addition of loss circulation material if necessary. Ensure that a minimum of 4 cement samples are taken and represent the cement at the beginning, middle and end of the cement job. Mix and pump sufficient RFC Light lead cement plus 2%CaCl₂ plus Cemnet followed by Class “G” 0-1-0% cement plus 2%CaCl₂ plus Cemnet to cement the 244mm casing to surface using 150% excess on the lead cement and 50% excess on the neat cement. Displace cement and bump plug to 3500kPa over final pumping pressure – do not exceed 60% of internal yield pressure of casing. Once plug is bumped, bleed off landing pressure and close cement head valves. Flush out BOP stack to clear stack of cement. Wait on cement at least 12 hours before slacking off casing and checking cement level in the 340mm x 244mm annulus.

Section 4.5 – 2nd Intermediate Hole & Production Casing

1) Annular Cement Level Check

If cement is not visible at surface between the 340mm and 244mm casings, run in annulus with spaghetti tubing and determine the cement top. Move in and rig up cementers and grout annulus to surface with cement. The wait on cement time will be extended a further 48 hours to compensate for the pumping of additional cement.

2) Installation of the BOP's

Check cement samples for hardness – if cement samples are set to the satisfaction of the Wellsite Supervisor, proceed with rigging up the second intermediate hole BOP's. Rig out the 346mm BOP's, unscrew the 346mm 14MPa x 340mm casing bowl, cut off the 244mm casing stickup and install the 244mm slip-on/weld-on x 279mm 14MPa casing bowl and BOP's. Install BOP's as per MNR requirements. Stump test BOP's prior to installation.

3) Logging

Move in and rip up Weatherford Wireline. With hole full of fresh water, run in hole with cement bond log tool and bond log the 244mm casing. Be prepared to perform a pressure pass if required. Rig out Weatherford and release.

4) Pressure Testing

Pressure test BOP stack using fresh water – do not proceed to the next step until each component of the stack passes the pressure test:

- Pressure test blind rams, casing, kill lines and manifold to 1400 kPa low and 7000 kPa high for 10 minutes each and record results on tower sheets
- Run in hole 222mm drill bit, drill collars, and drill pipe.
- Pressure test pipe rams, annular preventer, Kelly cock, standpipe, swivel, safety valves, etc to 1400 kPa low and 7000 kPa high to 10 minutes each and record results on tower sheets.
- Drill out cement, plug, and 0.5m of new formation and with the hole full of fresh water, perform a pressure integrity test to a bottom hole pressure equivalent to 18 kPa per meter and record the results on the tower sheets. Drill out as slowly and carefully as possible with a minimum weight on bit.

5) Drilling Method

Drill ahead 222mm 2nd intermediate hole with existing drilling mud to 330m. Circulate the drilling fluid over to saturated brine. Continue to drill a 222mm hole to the kick off point (KOP) of 387mKB. Circulate hole clean at 387m, then POOH drill string. Continue to run single point deviation surveys to the kick-off point. Ensure that drill cutting samples are taken every 3 meters and placed in the sample bags provided by the Ministry of Natural Resources. Drillers will be required to record information regarding connections, depth, drill breaks, down time, etc. and all data regarding operations or changes to operations on the geograph charts. Record on daily tower sheets any influx of fluids (water and/or hydrocarbons), loss circulation (rate and depth) and any unusual hole conditions.

Pick up bit, bend sub, motors, monels, etc as directed by the directional hand and RIH to 387mKB. Orientate bit and build angle as per the directional planning report. Be aware of the thick B Salt section (58mTVD) to ensure the wellbore does not lose build rate. TD for the 2nd intermediate hole will be in the A2 Anhydrite/Guelph at an approximate depth of 510mMD and inclination of 70° as picked by the wellsite geologist.

Circulate hole clean at the 2nd intermediate hole TD, then POOH and lay down big collars, etc.

6) Logging

Rig up Baker Atlas wireline unit. RIH Gr-Z Density-CNL log and log from TD to the base of the 244mm casing. Continue with Gr-CNL to surface. Rig out Baker Atlas.

7) Casing Installation

The 178mm casing will be run in the following manner:

- 178mm Guide Shoe
- 1 joint 178mm casing
- 178mm float collar
- 178mm casing to surface
- Centralizers will be installed on the 1st, 2nd, 3rd, 5th, and 8th joint and every 10 joints to surface.
- Thread lock guild shoe, float collar, and 1st joint.

8) Cementing Procedures

Move in and rig up Cementers. Ensure pressure recorder is rigged in and serviceable. Pressure charts will be attached to the job ticket. Conduct a pre-job safety meeting to confirm volumes and procedures. Establish circulation using rig pump and circulate with fresh water for 15 minutes to clean the borehole. Pressure test surface equipment to 60% of internal yield of casing. Pump preflush of 3m³ of fresh water, with the addition of loss circulation material if necessary. Ensure that a minimum of 4 cement samples are taken and represent the cement at the beginning, middle, and end of the cement job. Mix and pump sufficient Class “G” 0-1-0% cement mixed in 20% salt water with a density of 1933 kg/m³ tailed with sufficient Glass “G” 0-1-0 neat cement with 2% CaCl₂, with a density of 1901 kg/m³ to cement the 178mm casing to surface plus 50% excess and to have the Class G tail cement top up to at least the base of the C Unit. If loss circulation is a concern, consideration will be given to running gel cement across the porous zone(s) or using Cemnet throughout the job. Displace cement and bump plug to 3,500kPa over final displacement pressure – do not exceed 60% of internal yield pressure of casing. Once plug is bumped, bleed casing pressure back, close cement head valves and bleed off surface line pressure. Flush any cement out of BOP’s with water. Wait on cement at least 24 hours before slacking off casing.

While waiting on cement, transfer brine from rig tanks and haul in clean fresh water.

Section 4.6 – Horiz. #1 Main hole, Horiz. #1-Lat. #1 Main hole

1) Pressure testing/Logging/Drill Out Procedures

Once cement samples are set, especially the salt cement samples, slack off 178mm casing, unbutton BOP's, lift stack, set 178mm casing slips in 279mm casing bowl, then cut 178mm casing above casing bowl. Dress cut, install primary packing and secondary seals, then install 279mm 14MPa x 222mm 14MPa tubing spool. Install 222mm 14MPa double gate BOP's and annular on tubing spool. Pressure test blind rams, kill line and manifold to 1,400kPa low/7,000kPa high pressures. RIH 159mm button bit on drill string and tag cement top. Pressure test pipe rams and annular to 1,400kPa low/7,000kPa high. If underdisplaced cement is well above float collar, drill out cement down to within 5 meters of float collar. Circulate well to clean fresh water. POOH and rack drill string.

Fill casing to surface with water and ensure fluid is stable (no bubbles, etc). Ensure 103mm 14MPa and 52mm 14MPa wing valves are installed on tubing spool. Rig up high pressure pump and electronic pressure gauge to wellhead and pressure casing, wellhead and BOP's to at least 10MPa. Hold pressure for at least 2 hours. Download electronic recorder data to ensure the recorders worked then bleed off casing pressure.

Rig up Baker Atlas. Run CBL log from cement top to surface. Lay down bond log tool and pick up Vertilog tool. Run base line Vertilog from cement top to surface. Rig out Baker Atlas.

RIH 159mm tooth bit on drill string with MWD, bent sub, and monels to cement top. Drill out underdisplaced cement and wiper plug and ½ meter new formation. Conduct pressure integrity test on 178mm cement job to a gradient of at least 18kPa/m.

2) Horizontal 1 Main hole drilling procedures

Review BOP shut-in procedures and run BOP drills with all crews prior to entering the Guelph gas storage zone. Drill with rotation for sufficient length below the 178mm casing seat to allow orientation without metal influence. Orientate bent sub and bit and continue to build angle to 78° at a planned depth of 523mMD (484.9mTVD). Once wellbore is at 78°, drill ahead as per the directional drilling planning report (called "Leg #1" by Phoenix) subject to changes from the wellsite geologist. Ensure to build a small side door while drilling the Horiz. #1 wellbore to allow for the Horiz. #1-Lat. #1 wellbore to be started easily. Monitor flowline for signs of fluid losses once porous Guelph reef is contacted. Do not mix up LCM material to combat loss circulation. Continue to haul in fresh water if required to keep up with fluid losses. If necessary, mix up and pump gell plug sweeps to clean horizontal

section to avoid cuttings settling and potential sticking. Drill ahead Horizontal 1 wellbore to planned total depth of 696.9mMD (522.7mTVD). Circulate at TD for 1 hour to move cuttings up horizontal section and hopefully out of the well.

3) Horizontal 1-Lateral 1 Main hole drilling procedures

Pull drill string up horizontal wellbore to Horiz. #1-Lat. #1 kick off depth of 540mMD (488.6mTVD). If necessary, POOH to adjust bent sub motor, then reposition bit at kick-off point. Orientate bent sub and bit and slowly dig the Horiz. #1-Lat. #1 wellbore out the side of the Horiz. #1 existing wellbore. Once the wellbore is away from the Horiz. #1 wellbore, add additional WOB and drill ahead Horiz. #1-Lat. #1 wellbore as per Phoenix planning report (called "Leg #2" by Phoenix) subject to changes from the wellsite geologist. Monitor flowline for signs of increased fluid losses. Do not mix up LCM material to combat loss circulation. Continue to haul in fresh water if required to keep up with fluid losses. If necessary, mix up and pump gell plug sweeps to clean horizontal section to avoid cuttings settling and potential sticking. Drill ahead Horiz. #1-Lat. #1 wellbore to planned total depth of 903.0mMD (522.7mTVD). Circulate at TD for 1 hour to move cuttings up horizontal section and hopefully out of the well.

4) Trip out and rig out procedures

Review BOP procedures for shutting in while tripping and prepare a trip sheet. POOH drill string sideways, keeping wellbore full to avoid kicks. Once drill string is pulled, continue to keep well topped up to avoid kicks.

Rig up Weatherford Wireline. Correlate to Baker CBL log and set a wireline set retrievable bridge plug toward the base of the 178mm casing at an approximate depth of 490mMD. POOH wireline and rig out Weatherford.

Pressure test bridge plug to 7MPa to ensure it is sealing. Once the pressure test is complete, bleed off pressure and rig down BOP's. Install 222mm 14MPa x 52mm 14MPa tubing bonnet on casing spool and rig out drilling rig. Move rig off location.

5) Evaluation

After the drilling rig has been moved off location, a service rig will be moved on. The wellhead will be configured as an I/W well (222mm master valve), then the rig will swab fluid from above the bridge plug, retrieve the bridge plug, and both the Hor 1 and Hor 1/Lat 1 legs in the well will be acidized with endless tubing.

SECTION 5.0 – REPORTING PROCEDURES

Section 5.1 – Tower Sheets

Shall be completed daily and shall include:

1. Bit size, fluid type and weight, weight on bit, deviation surveys, depth at the beginning of the shift and end of each shift.
2. Casing size, grade, weight, and number of joints, centralizers, cement baskets, total length, and setting depth.
3. Cementing information – Service Company, cement type, amount, slurry density, additives, annular fluid returns, volume of displacement fluid and plug down time.
4. Water, gas or oil – type, depth encountered, depth of sample collected and the static level and/or rate of flow.
5. Pressure tests – individually, subsurface pressures, fluid density used in the tests, bleed off rate and duration of test.
6. Logging Details – type and interval.
7. Abandonment details – intervals, amount and type of cement, top of plug and time felt.
8. Rig release – date and time.

Section 5-2 – Worker Injury

Every work related accident or injury shall be reported immediately to the Wellsite Supervisor. The Supervisor shall immediately contact the Ministry of Labour @ 1-800-265-5140 and the Ministry of Natural Resources @ 519-873-4634. The verbal report shall be followed with a written report as per the Occupation Health and Safety Act and the Oil, Gas, & Salt Resources Act and Section 13 of the Operational Standards. The Supervisor will also be responsible for notifying the Operator (Bayfield Resources Inc.) and shall be responsible for the completion of Bayfield's Accident Report Form.

SECTION 6.0 – SAFETY AND PROCEDURES

Section 6.1 – General Safety

1. All works at the well site shall be in compliance with the Occupational Health and Safety Act and the Oil, Gas, & Salt Resources Act and all associated legislation. In addition, all work at the well site shall be done in compliance with good oil field practices. All verbal notification given to and approvals received from government agencies shall be recorded on the tower sheets.
2. Safety meetings are to be held with each crew, at the start of the well and periodically while drilling – meetings shall also be held prior to cementing and upon arrival of the logging company, prior to commencing of directional drilling operations and before the start of underbalanced drilling operations.

3. The Well Site Supervisor shall ensure that the operations are in compliance with all applicable government regulations and shall complete daily walk around rig inspections.

Section 6.2 – Well Control

All blowout prevention systems are to be in strict compliance with MNR regulations. Those function and pressure testing procedures as required by the regulatory bodies, such as daily function testing of the pipe rams, will be strictly adhered to.

1. All pressure tests of blowout prevention equipment will be conducted with fresh water.
2. The following pressure test will be conducted with fresh water prior to drilling out each casing string:
 - a. The blind rams, kill lines and choke manifold will be tested to 1400kPa low and 7000kPa high for 10 minutes each.
 - b. The blind rams, Kelly cock, stand pipe, swivel, safety valves, etc. will be tested to 1400 kPa low and 7000 kPa high for 10 minutes each.
 - c. The annular preventer will be tested to 1400 kPa low and 7000 kPa high for 10 minutes each.
3. Upon drilling out the casing, drill 0.5m to 1.0m of new hole and test the formation to a minimum bottom hole pressure of 18kPa per meter.
4. After one day of drilling below the casing shoe, check the entire blowout prevention system and tighten all bolts.
5. Crews should be kept alert and familiar with the blowout prevention equipment. At least one member of the crew who has been trained in blowout prevention and well control procedures must be on the floor at all times.
6. Conduct blowout prevention drills prior to drilling out casing and once per week thereafter. Ensure that the drills are recorded in the tour book.
7. The blowout preventers are to be function tested once per tour. Ensure that the function test is recorded on the daily tour sheets.

D 2-2

Application for Well License

Bayfield Resources et al #3 (Horiz. #1-Lat. #1), Stanley 3-7-XI

Table of Contents	Page
Form 1: Application for Well License	2
Survey	3
Drilling Program	4



Application for a Well Licence

Form 1

To the Minister of Natural Resources

v.2000-08-18

The undersigned operator applies for a well licence under the Oil, Gas and Salt Resources Act and the Regulations thereunder and submits the following information, together with the application fee of \$100 + 7%GST.

1. WELL NAME	Bayfield Resources et al #3 (Horiz. #1-Lat.#1), Stanley 3-7-XI	Target Formation	Guelph
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Purpose of Proposed Well (Well Type)	Injection/Withdrawal
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2. NAME OF OPERATOR	Bayfield Resources Inc.	Tel #	519-657-2151
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Address	309 Commissioners Rd. W. Unit E, London, ON, N6J 1Y4	Fax #	519-657-4296
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3. LOCATION	County	Huron	Township	Stanley
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Tract	3	Lot	7	Concession	XI	Lake Erie:	Block	Tract
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Lake Erie licence or lease number _____

Bottom-hole location	Bottom-hole Latitude	N43 28' 46.380"	Bottom-hole Longitude	W81 39' 00.418"
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Surface location metres from Lot Boundaries 184.25 m North ☒ South ☐ Latitude N43 28' 47.399"

325.70 m East ☒ West ☐ Longitude W81 38 44.760"

Within 1.6 km of Designated Storage Area? Yes ☐ No ☒ Off-target? Yes ☒ No ☐

4. WELL PARTICULARS Vertical ☐ Horizontal ☒ Directional ☐ Deepening ☐ Re-entry ☐ Lateral ☒

Rig Type: Rotary ☒ Cable ☐ Well to be cored? Yes ☐ No ☒ Formation at TD Guelph

Ground Elevation	264.7	Proposed Depth	902m	Proposed Depth TVD	522m	Proposed Start Date	1-Jan-10
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5. LANDOWNER	McKinley Farms & Hatchery Limited	Tel #	519-263-5392
--------------	-----------------------------------	-------	--------------

Address 73370 Goshen Line, RR#1, Zurich, ON, N0M 2T0

Spacing unit shown on attached survey plan is pooled (see O.Reg. 245/97 definitions: "pooled spacing unit") Yes ☒ No ☐

6. DRILLING CONTRACTOR (if known)	unknown
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Address

7. PROPOSED CASING AND CEMENTING PROGRAM

[illegible]

8. BLOW-OUT PREVENTION EQUIPMENT	11" blind and pipe rams, 2000 psi annular preventor, rotating head spool and valves fill-up and flare lines (or equivalent to meet standards).
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9. WELL SECURITY

Name of Trustee	Giffen & Partners	Address	465 Waterloo Street, London, Ontario N6B 2K4
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Tel #	519-679-4700	Fax #	519-432-8003	Total # unplugged wells	0	Current Balance	\$56,000
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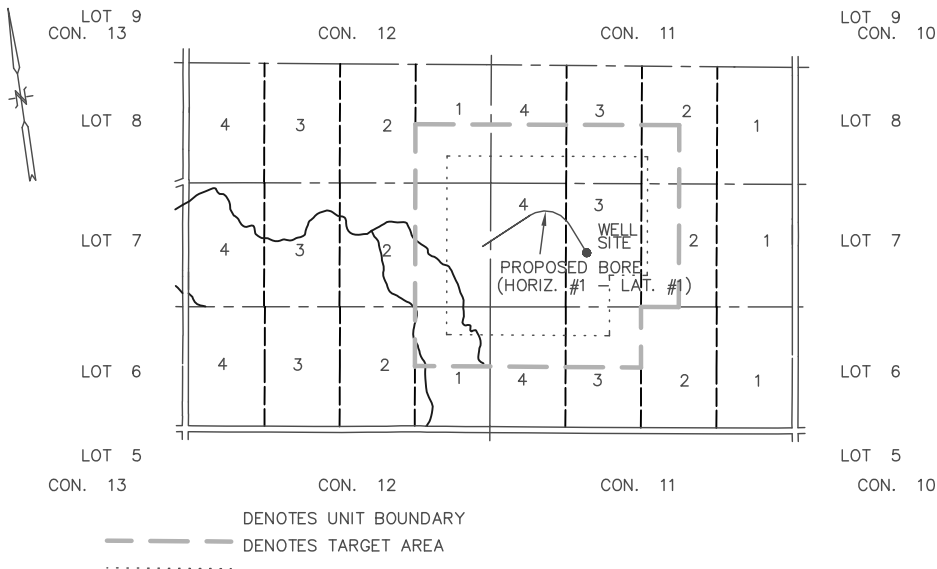
10. REMARKS

Well in Unitized Stanley 4-7-XI Pool
340mm casing run if required by hole conditions.

11. ENCLOSURES: Fee ☒ Location Plan ☒ (Land wells only) Drilling Program ☒

12. **AUTHORITY:** The undersigned certifies that the information provided herein is complete and accurate, the operator has the right to drill or operate a well in the above location, and he/she has authority to bind the operator.

Date	15-Sep-09	Name	J. Lowrie	Signature	
Date of Birth	Feb. 12, 1955	Title	President		



LEGEND FOR BORES
AZIMUTHS AND DISTANCES

TRUE NORTH
AZIMUTH & DISTANCE

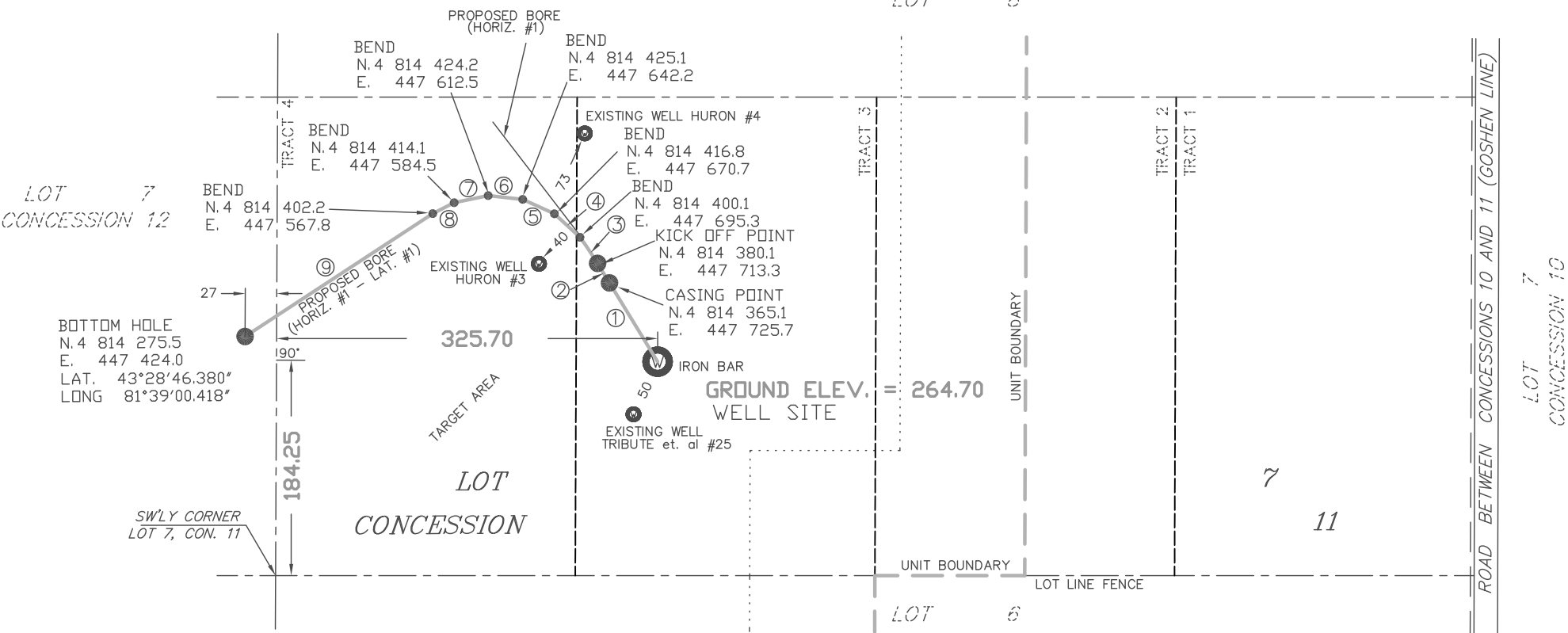
PROPOSED WELL BAYFIELD
RESOURCES et. al. #3

- 1 320° 78.9
EXISTING CASING POINT
2 320° 19.5
PROPOSED KICK OFF
3 317°25' 26.9
4 303°55' 29.7
5 285°48' 29.7
6 267°42' 29.7
7 249°37' 29.7
8 234°23' 20.5
9 228°11' 191.7
BOTTOM HOLE

WELL NAME
BAYFIELD RESOURCES et. al. #3 (HORIZ. #1 - LAT. #1) - STANLEY - 3 - 7 - 11

SCALE 1:5000

NOTE (WELL SITE) CO-ORDINATES
LATITUDE N.43°28'47.399" LONGITUDE W.81°38'44.760"
U.T.M. N.4 814 304.2 E.447 776.0



--- DENOTES UNIT BOUNDARY
..... DENOTES TARGET AREA

BEARING NOTE
ALL AZIMUTH BEARINGS HEREDON ARE REFERRED TP TRUE NORTH.

NOTE METRIC
DISTANCES SHOWN ON THIS PLAN ARE IN METERS AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

PREPARED FOR
BAYFIELD RESOURCES INC.

FILE NO. 08-4866 PLAN NO. TRI6308.DWG

Timothy J. O'Rourke

SEPTEMBER 16, 2009

TIMOTHY J. O'ROURKE C.S.T. A.C.E.T.

AUTHORIZED BY THE MINISTER OF NATURAL RESOURCES
UNDER THE PETROLEUM RESOURCES ACT OF ONTARIO

PREPARED BY
BRISCO AND O'ROURKE
1425331 ONTARIO LIMITED
SERVING THE PETROLEUM INDUSTRY
THROUGHOUT ONTARIO
WELLS, CONSTRUCTION AND TECHNICAL SURVEYING
DIGITAL MAPPING
LAND AND LEASE SURVEYS
OFFICE (519) 351-5073
CELL (519) 401-5073
FAX (519) 351-3119
PO BOX 327 - N7M-5K4
CHATHAM, ONTARIO

NOTE BENCH MARK
ELEVATIONS ARE REFERRED TO GEODETIC DATUM AND
REFERENCE BENCH MARK BEING
MONUMENT No.72U095 BAYFIELD
ELEVATION = 199.914

NOTE GEODETIC HORIZONTAL CONTROL
U.T.M. CO-ORDINATES ARE GEODETIC (DATUM NAD 83)
AND REFERRED TO MONUMENTS
00819711196 AND 00819711197

BAYFIELD RESOURCES ET AL #3 (HORIZ. #1-LAT. #1), Stanley 3-7-XI

DRILLING PROGRAM

Please refer to the drilling program appended to
Tab D, Section 2-1: Bayfield Resources et al #3 (Horiz. #1), Stanley 3-7-XI application

D 2-3

Application for Well License

Tribute Resources et al #25 (Horiz. #1), Stanley 3-7-XI

	Page
Table of Contents	
Form 1: Application for Well License	2
Survey	3
Drilling Program	4

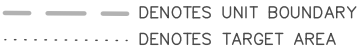


v.2000-08-18

Date of Birth	Feb. 12, 1955.	Title	President
---------------	----------------	-------	-----------



NOTE (WELL SITE) CO-ORDINATES
LATITUDE N.43°28'45.859" LONGITUDE W.81°38'45.367"
U.T.M. N.4 814 256.8 E.447 762.0



BEARING NOTE
ALL AZIMUTH BEARINGS HEREON ARE REFERRED TO TRUE NORTH.

NOTE METRIC
DISTANCES SHOWN ON THIS PLAN ARE IN METERS AND
CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

NOTE BENCH MARK
ELEVATIONS ARE REFERRED TO GEODETIC DATUM AND
REFERENCE BENCH MARK BEING
MONUMENT No.72U095 BAYFIELD
ELEVATION = 199.914

NOTE GEODETIC HORIZONTAL CONTROL
U.T.M. CO-ORDINATES ARE GEODETIC (DATUM NAD 83)
AND REFERRED TO MONUMENTS
00819711196 AND 00819711197

FILE NO. 08-4866 PLAN NO. TRI6306.DWG

 SEPTEMBER 15, 2009

TIMOTHY J. O'ROURKE C.S.T. A.C.E.T.

AUTHORIZED BY THE MINISTER OF NATURAL RESOURCES
UNDER THE PETROLEUM RESOURCES ACT OF ONTARIO

**TRIBUTE RESOURCES ET AL #25 (Horiz. #1)
STANLEY 3-7-XI**

DRILLING PROGRAM

TABLE OF CONTENTS

SECTION 1.0

GENERAL DATA

Section 1.1	Well Summary
Section 1.2	Potential Problems
Section 1.3	Contact Numbers

SECTION 2.0

GEOLOGICAL PROGNOSIS

SECTION 3.0

CASING AND CEMENTING SUMMARY

Section 3.1	Summary
Section 3.2	Wellbore Diagram
Section 3.3	Directional Planning Report

SECTION 4.0

DRILLING PROCEDURES

Section 4.1	Pre Spud
Section 4.2	Hor 1 Main hole

SECTION 5.0

REPORTING PROCEDURES

Section 5.1	Tower Sheets
Section 5.2	Worker Injury

SECTION 6.0

SAFETY AND PROCEDURES

Section 6.1	General Safety
Section 6.2	Well Control

SECTION 1.0 – GENERAL DATA

Section 1.1 – Well Summary

Well Name:	Tribute Resources et al #25 (Horiz. #1) Stanley 3-7-XI
Operator:	Bayfield Resources Inc.
Surface Hole Location:	Lot 7, Concession XI, Stanley Township, Huron County
Surface Hole Coordinates:	139.1m North; 305.2m East Lat: N43° 28' 45.859", Long: E81° 38' 45.367"
Bottom Hole Location:	Horiz. #1: Lot 7, Concession XI, Stanley Township, Huron County
Bottom Hole Coordinates:	Horiz. #1: Lat: N43° 28' 42.561", Long: E81° 38' 55.988"
Ground Elevation:	263.4m
KB Elevation:	267.7m
Total Depth:	Horiz. #1: 799.4mMD/573.7mTVD
Target Formation:	Guelph
Logging Program:	None
Spud Date:	As soon as OEB approvals are received for Stanley pool conversion to storage

Section 1.2 – Potential Problems

- 1) Due to the low reservoir pressure, loss circulation may be encountered while drilling through the Guelph reef. If loss circulation is experienced, haul in additional fluid to keep up with losses rather than trying to heal up the loss circulation with LCM material. Since the Guelph reef is the target, we cannot plug up permeability with LCM material with the hope of being able to remove the LCM material during completion operations. If complete lost circulation exists, be cautious while obtaining MWD mud pulse surveys that the drill string does not get differentially stuck while stationary. If partial circulation can be obtained, use viscous mud sweeps to try to keep the wellbore as clean as possible.

Section 1.3 – Contact Numbers

Bayfield Resources Inc.

Jane Lowrie	-	President	-	Office (519) 657-2151 Fax (519) 657-4296 Mobile(519) 871-9096
Neil Hoey	-	Geologist	-	Office (519) 472-4776 Fax (519) 472-4776 Mobile(519) 649-6918
Jim McIntosh	-	Supervisor/Examiner	-	Office (519) 657-2151 Fax (519) 472-7897 Mobile(519) 871-9542

Schlumberger Well Services

Jay Rookes	-	Cell Leader	-	Office (519) 652-5053 Fax (519) 652-6002 Mobile(519) 494-5292
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Holland Water Hauling Ltd.

Cliff Holland	-	Owner/Operator	-	Office (519) 798-3929 Mobile(519) 524-0824
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Wellmaster Pipe and Supply

Bill Hedges	-	Sales	-	Office (519) 688-0500 Fax (519) 688-0563
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Government & Other Agencies

MNR	-	Petroleum Resources	-	Office (519) 873-4634 Fax (519) 873-4645
MOE	-	Spills Reporting	-	(800) 268-6060
MOL	-	Health & Safety	-	(800) 265-1676
OPP	-	Communication Center		(800) 265-7191 911

Section 2.0 - Geological Prognosis

Well: Tribute Resources et al #25 (Horiz. #1)

Location: Stanley 3-7-XI

Ground Elevation: 263.4 m

KB Elevation: 267.7 m

Geological Formation	Formation (mMD)	Depth (mTVD)	Elevation (m ss)	Thickness (mTVD)	Fluid Type	Fluid Depth (mFRR)	Oil/ Gas	Depth (mTVD)	Pressure (kPa)
Drift	4.3	4.3	263.4	89.7	Fresh	11			
Dundee	94.0	94.0	173.7	10.5	Fresh	94			
Lucas	104.5	104.5	163.2	39.5	Sulphur	130+			
Amherstburg	144.0	144.0	123.7	27.0					
Bois Blanc	171.0	171.0	96.7	66.0					
Bass Islands	237.0	237.0	30.7	50.0					
G Unit	287.0	287.0	-19.3	7.5					
F Unit	294.5	294.5	-26.8	27.0					
E Unit	321.5	321.5	-53.8	49.0					
D Unit	370.5	370.5	-102.8	8.5					
C Unit	379.0	379.0	-111.3	12.0					
B Unit	391.0	391.0	-123.3	6.5					
B Salt	397.5	397.5	-129.8	58.5					
B Anhydrite	456.0	456.0	-188.3	0.5					
A-2 Carbonate	456.5	456.5	-188.8	19.4					
A-2 Shale	475.9	475.9	-208.2	1.6					
A-2 Anhydrite	477.5	477.5	-209.8	7.4					
Guelph	484.9	484.9	-217.2	101.1			Gas	500-574	
Total Depth	799.4	573.7							

Section 3.0 – Casing and Cementing Summary

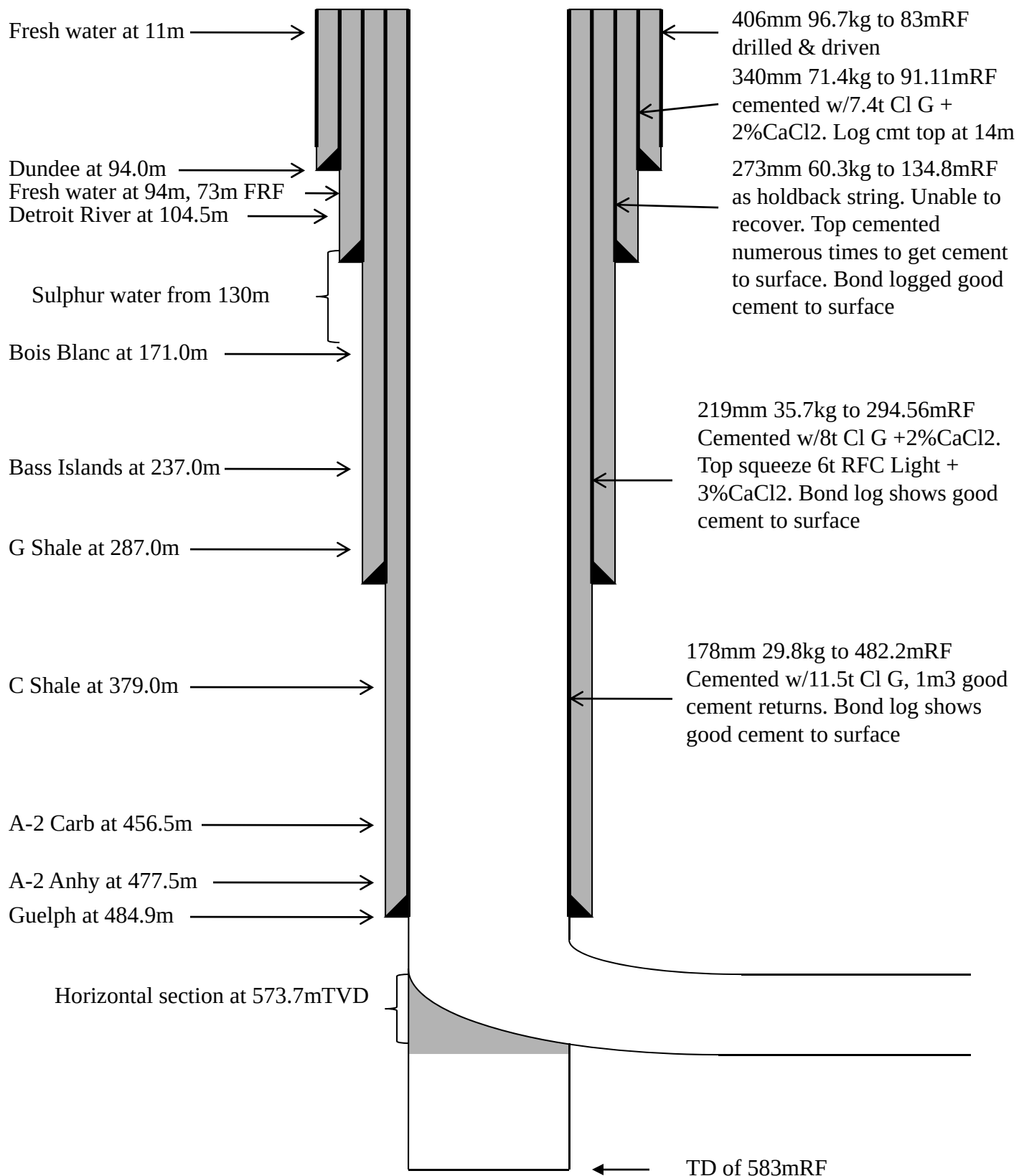
Section 3.1 - Summary

Hole Size (mm)	Casing Size (mm)	Casing Grade	Casing Weight (kg/m)	Setting Depth (mMD)	How Set
384	406	H-40	96.7	83.0	Drilled and driven. No cement pumped.
384	340	LS	81.1	92.1	Cemented with 7.4t Class G plus 2%CaCl ₂ . No cement returns. CBL log shows cement top at 14m.
316	273	LS	60.3	134.8	Cemented with 6.5m ³ RFC Lite. No fluid returns. Backside squeezed 3 times with 6m ³ RFC Lite, 6m ³ RFC Lite, and 2.1m ³ Class G, then bond logged with good bond to surface.
251	219	J-55	35.7	294.6	Cemented to surface with 8t Class G 0-1-0% plus 2%CaCl ₂ . No fluid returns. Backside squeezed with 6t RFC Lite + 3%CaCl ₂ , then bond logged with good bond to surface.
202	178	J-55	29.76	485.2	Cemented to surface with 11.5t Class G 0-1-0% Class G 0-1-0% neat. Received 1.0m ³ good cement returns.

Main Hole: Current vertical main hole drilled to 583m. The main hole will be plugged back and a 159mm horizontal drain hole will be drilled out from the existing wellbore.

Wellbore Schematic Diagram

Tribute Resources et al #25 (Horiz. #1): Stanley 3-7-XI Wellbore



TRIBUTE RESOURCES

Project: STANLEY
 Site: (Stanley 3-7-XI) Tribute #25
 Well: Tribute etal
 Wellbore: Tribute #25
 Design: 9165950R P3 (mb/sh)



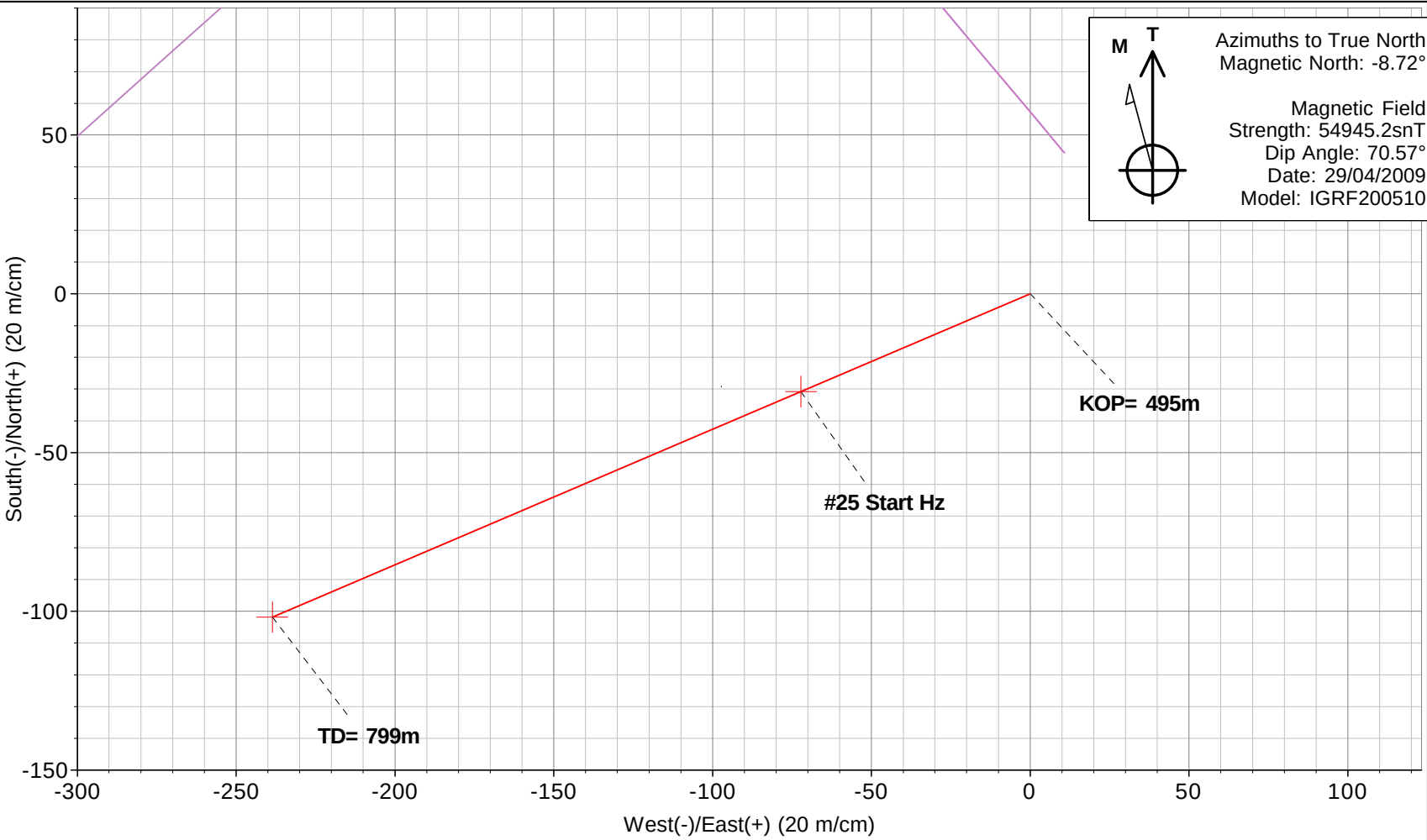
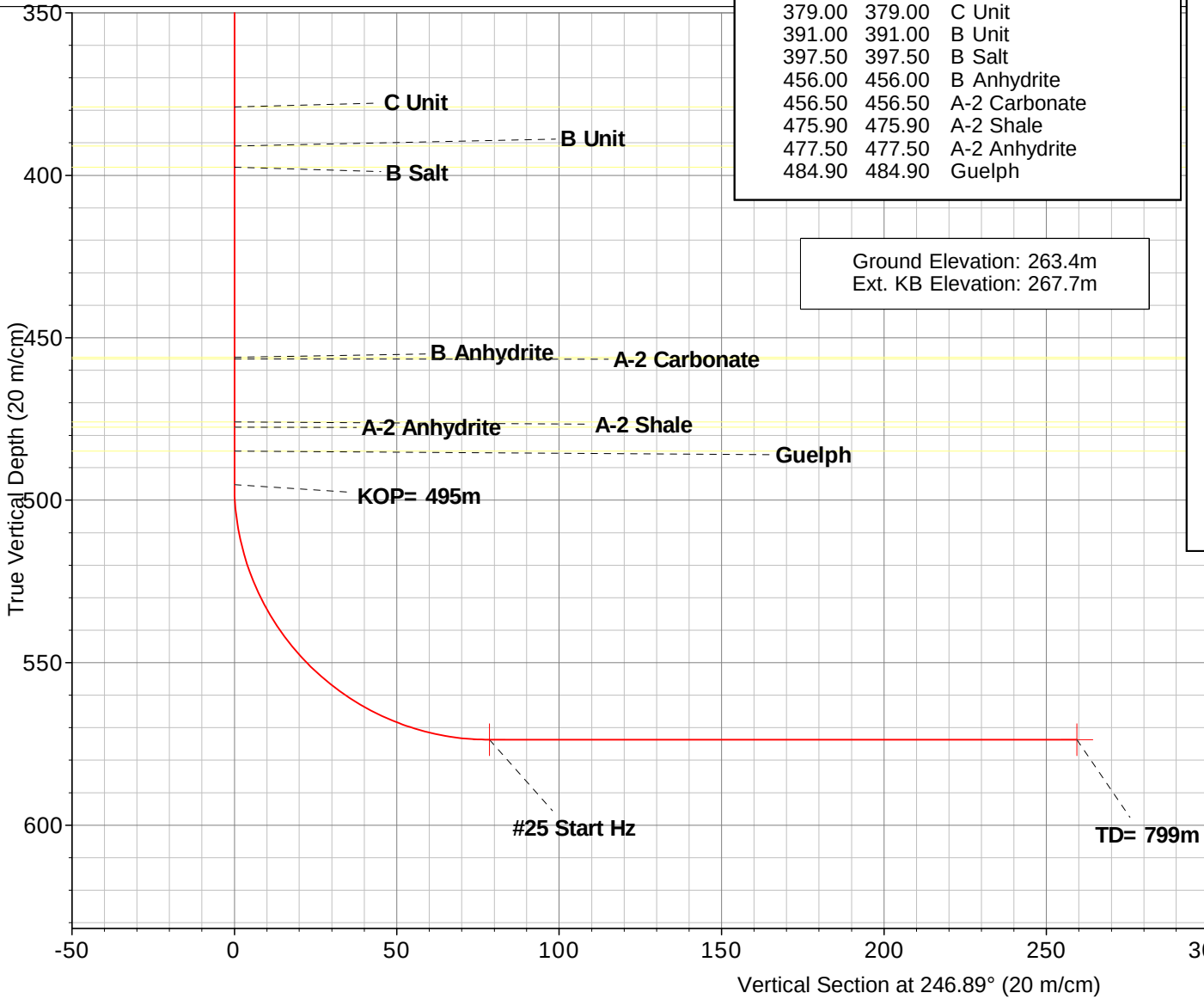
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	
2	495.20	0.00	0.00	495.20	0.00	0.00	0.000	0.00	0.00	
3	618.51	90.00	246.89	573.70	-30.81	-72.20	21.896	246.89	78.50	#25 Start Hz
4	799.40	90.00	246.89	573.70	-101.80	-238.58	0.000	0.00	259.39	#25 TD

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4.30	4.30	Drift
94.00	94.00	Dundee
104.50	104.50	Lucas
144.00	144.00	Amherstburg
171.00	171.00	Bois Blanc
237.00	237.00	Bass Islands
287.00	287.00	G Unit
294.50	294.50	F Unit
321.50	321.50	E Unit
341.00	341.00	D Unit
379.00	379.00	C Unit
391.00	391.00	B Unit
397.50	397.50	B Salt
456.00	456.00	B Anhydrite
456.50	456.50	A-2 Carbonate
475.90	475.90	A-2 Shale
477.50	477.50	A-2 Anhydrite
484.90	484.90	Guelph

Ground Elevation: 263.4m
 Ext. KB Elevation: 267.7m



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
#25 Start Hz	573.70	-30.81	-72.20	Point
#25 TD	573.70	-101.80	-238.58	Point

ANNOTATIONS

TVD	MD	Annotation
495.20	495.20	KOP= 495m
573.70	799.39	TD= 799m

Database:	EDM 2003.21 Phoenix	Local Co-ordinate Reference:	Site (Stanley 3-7-XI) Tribute #25
Company:	TRIBUTE RESOURCES	TVD Reference:	Est. KB @ 267.70m (Original Well Elev)
Project:	STANLEY	MD Reference:	Est. KB @ 267.70m (Original Well Elev)
Site:	(Stanley 3-7-XI) Tribute #25	North Reference:	True
Well:	Tribute etal	Survey Calculation Method:	Minimum Curvature
Wellbore:	Tribute #25		
Design:	9165950R P3 (mb/sh)		

Project	STANLEY		
Map System:	Universal Transverse Mercator	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 17N (84 W to 78 W)		

Site	(Stanley 3-7-XI) Tribute #25			
Site Position:		Northing:	4,814,259.89 m	Latitude: 43° 28' 45.960 N
From:	Lat/Long	Easting:	447,764.87 m	Longitude: 81° 38' 45.240 W
Position Uncertainty:	0.00 m	Slot Radius:		Grid Convergence: -0.44 °

Well	Tribute etal			
Well Position	+N/-S	0.00 m	Northing:	4,814,259.89 m
	+E/-W	0.00 m	Easting:	447,764.87 m
Position Uncertainty		0.00 m	Wellhead Elevation:	Latitude: 43° 28' 45.960 N
				Longitude: 81° 38' 45.240 W
				Ground Level: 263.40 m

Wellbore	Tribute #25				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	29/04/2009	-8.72	70.57	54,945

Design	9165950R P3 (mb/sh)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(m)	(m)	(m)	(°)
	0.00	0.00	0.00	246.89

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(m)	(°)	(°)	(m)	(m)	(m)	(°/30m)	(°/30m)	(°/30m)	(°)	
0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.00	
495.20	0.00	0.00	495.20	0.00	0.00	0.000	0.000	0.000	0.00	
618.51	90.00	246.89	573.70	-30.81	-72.20	21.896	21.896	0.000	246.89	#25 Start Hz
799.40	90.00	246.89	573.70	-101.80	-238.58	0.000	0.000	0.000	0.00	#25 TD

Database:	EDM 2003.21 Phoenix	Local Co-ordinate Reference:	Site (Stanley 3-7-XI) Tribute #25
Company:	TRIBUTE RESOURCES	TVD Reference:	Est. KB @ 267.70m (Original Well Elev)
Project:	STANLEY	MD Reference:	Est. KB @ 267.70m (Original Well Elev)
Site:	(Stanley 3-7-XI) Tribute #25	North Reference:	True
Well:	Tribute etal	Survey Calculation Method:	Minimum Curvature
Wellbore:	Tribute #25		
Design:	9165950R P3 (mb/sh)		

Planned Survey								
Measured Depth (m)	Inclination (°)	Azimuth (°)	Vertical Depth (m)	Subsea Depth (m)	+N/-S (m)	+E/-W (m)	Vertical Section (m)	Dogleg Rate (°/30m)
0.00	0.00	0.00	0.00	267.70	0.00	0.00	0.00	0.000
Drift								
4.30	0.00	0.00	4.30	263.40	0.00	0.00	0.00	0.000
Dundee								
94.00	0.00	0.00	94.00	173.70	0.00	0.00	0.00	0.000
Lucas								
104.50	0.00	0.00	104.50	163.20	0.00	0.00	0.00	0.000
Amherstburg								
144.00	0.00	0.00	144.00	123.70	0.00	0.00	0.00	0.000
Bois Blanc								
171.00	0.00	0.00	171.00	96.70	0.00	0.00	0.00	0.000
Bass Islands								
237.00	0.00	0.00	237.00	30.70	0.00	0.00	0.00	0.000
G Unit								
287.00	0.00	0.00	287.00	-19.30	0.00	0.00	0.00	0.000
F Unit								
294.50	0.00	0.00	294.50	-26.80	0.00	0.00	0.00	0.000
E Unit								
321.50	0.00	0.00	321.50	-53.80	0.00	0.00	0.00	0.000
D Unit								
341.00	0.00	0.00	341.00	-73.30	0.00	0.00	0.00	0.000
C Unit								
379.00	0.00	0.00	379.00	-111.30	0.00	0.00	0.00	0.000
B Unit								
391.00	0.00	0.00	391.00	-123.30	0.00	0.00	0.00	0.000
B Salt								
397.50	0.00	0.00	397.50	-129.80	0.00	0.00	0.00	0.000
B Anhydrite								
456.00	0.00	0.00	456.00	-188.30	0.00	0.00	0.00	0.000
A-2 Carbonate								
456.50	0.00	0.00	456.50	-188.80	0.00	0.00	0.00	0.000
A-2 Shale								
475.90	0.00	0.00	475.90	-208.20	0.00	0.00	0.00	0.000
A-2 Anhydrite								
477.50	0.00	0.00	477.50	-209.80	0.00	0.00	0.00	0.000
Guelph								
484.90	0.00	0.00	484.90	-217.20	0.00	0.00	0.00	0.000
Int. Csg.								
485.20	0.00	0.00	485.20	-217.50	0.00	0.00	0.00	0.000
KOP= 495m								
495.20	0.00	0.00	495.20	-227.50	0.00	0.00	0.00	0.000
510.00	10.80	246.89	509.91	-242.21	-0.55	-1.28	1.39	21.896
540.00	32.70	246.89	537.61	-269.91	-4.88	-11.44	12.44	21.896
570.00	54.60	246.89	559.18	-291.48	-12.96	-30.37	33.02	21.896
600.00	76.49	246.89	571.53	-303.83	-23.61	-55.34	60.16	21.896
#25 Start Hz								
618.51	90.00	246.89	573.70	-306.00	-30.81	-72.20	78.50	21.896
630.00	90.00	246.89	573.70	-306.00	-35.32	-82.77	89.99	0.000
660.00	90.00	246.89	573.70	-306.00	-47.09	-110.37	119.99	0.000
690.00	90.00	246.89	573.70	-306.00	-58.87	-137.96	149.99	0.000

Database:	EDM 2003.21 Phoenix	Local Co-ordinate Reference:	Site (Stanley 3-7-XI) Tribute #25
Company:	TRIBUTE RESOURCES	TVD Reference:	Est. KB @ 267.70m (Original Well Elev)
Project:	STANLEY	MD Reference:	Est. KB @ 267.70m (Original Well Elev)
Site:	(Stanley 3-7-XI) Tribute #25	North Reference:	True
Well:	Tribute etal	Survey Calculation Method:	Minimum Curvature
Wellbore:	Tribute #25		
Design:	9165950R P3 (mb/sh)		

Planned Survey								
Measured Depth (m)	Inclination (°)	Azimuth (°)	Vertical Depth (m)	Subsea Depth (m)	+N/-S (m)	+E/-W (m)	Vertical Section (m)	Dogleg Rate (°/30m)
720.00	90.00	246.89	573.70	-306.00	-70.64	-165.55	179.99	0.000
750.00	90.00	246.89	573.70	-306.00	-82.41	-193.14	209.99	0.000
780.00	90.00	246.89	573.70	-306.00	-94.19	-220.74	239.99	0.000
TD= 799m								
799.39	90.00	246.89	573.70	-306.00	-101.80	-238.57	259.38	0.000
#25 TD								
799.40	90.00	246.89	573.70	-306.00	-101.80	-238.58	259.39	0.000

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (m)	+N/-S (m)	+E/-W (m)	Northing (m)	Easting (m)	Latitude	Longitude
- hit/miss target									
- Shape									
#25 TD	0.00	0.00	573.70	-101.80	-238.58	4,814,159.94	447,525.50	43° 28' 42.660 N	81° 38' 55.860 W
- plan hits target center									
- Point									
#25 Start Hz	0.00	0.00	573.70	-30.81	-72.20	4,814,229.64	447,692.43	43° 28' 44.961 N	81° 38' 48.454 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (m)	Vertical Depth (m)	Name		Casing Diameter (mm)	Hole Diameter (mm)
485.20	485.20	Int. Csg.			

Database:	EDM 2003.21 Phoenix	Local Co-ordinate Reference:	Site (Stanley 3-7-XI) Tribute #25
Company:	TRIBUTE RESOURCES	TVD Reference:	Est. KB @ 267.70m (Original Well Elev)
Project:	STANLEY	MD Reference:	Est. KB @ 267.70m (Original Well Elev)
Site:	(Stanley 3-7-XI) Tribute #25	North Reference:	True
Well:	Tribute etal	Survey Calculation Method:	Minimum Curvature
Wellbore:	Tribute #25		
Design:	9165950R P3 (mb/sh)		

Formations						
Measured Depth (m)	Vertical Depth (m)	Name	Lithology	Dip (°)	Dip Direction (°)	
4.30	4.30	Drift		0.00		
94.00	94.00	Dundee		0.00		
104.50	104.50	Lucas		0.00		
144.00	144.00	Amherstburg		0.00		
171.00	171.00	Bois Blanc		0.00		
237.00	237.00	Bass Islands		0.00		
287.00	287.00	G Unit		0.00		
294.50	294.50	F Unit		0.00		
321.50	321.50	E Unit		0.00		
341.00	341.00	D Unit		0.00		
379.00	379.00	C Unit		0.00		
391.00	391.00	B Unit		0.00		
397.50	397.50	B Salt		0.00		
456.00	456.00	B Anhydrite		0.00		
456.50	456.50	A-2 Carbonate		0.00		
475.90	475.90	A-2 Shale		0.00		
477.50	477.50	A-2 Anhydrite		0.00		
484.90	484.90	Guelph		0.00		

Plan Annotations					
Measured Depth (m)	Vertical Depth (m)	Local Coordinates			
		+N/-S (m)	+E/-W (m)	Comment	
495.20	495.20	0.00	0.00	KOP= 495m	
799.39	573.70	-101.80	-238.57	TD= 799m	

Section 4.0 - Drilling Procedures

Section 4.1 - PreSpud

1) Fresh Water Well Samples

Samples from fresh water wells will be taken in compliance with Bayfield Resources Inc.'s fresh water well sampling policy as developed by Stantec. Ensure that copies of these reports are sent to the London office and to Eastern Oilfield Services' office in Bothwell.

2) Site Preparation

Prepare drilling location as follows:

- a) Locate all drainage tiles crossing lease area.
- b) Strip and properly stock pile all soil from the lease
- c) Cut, block, and divert drainage tiles as required
- d) Install fabric and stone to ensure minimal mud is tracked from the location in times of inclement weather.
- e) Construct adequate berms around lease and access road as required.

3) Government Notification of Spud

48 hours prior to spud, notify the Ministry of Natural Resources – Petroleum Resources Section by fax @ (519) 873-4645 of the date of commencement of drilling operations.

4) Signs

Install rig signs on access road to lease.

5) Safety Meeting

Conduct a pre-spud safety meeting with each rig. Toolpush and all crew members must be present. A similar meeting shall be conducted with the remaining crew(s) as they come on duty. Additional safety meetings shall be conducted at the Well Site Supervisor's discretion.

Section 4.2 - Horizontal 1 Main hole

1) Set kick plug

Move on service rig and rig up. Bleed pressure off of 229mm/60.3mm tubing bonnet on surface. Remove bonnet and install working spool and 229mm 14MPa double gate BOP's on 229mm 14MPa flange. Function test BOP's.

If the borehole is gassing too much for safe operations, lightly kill well with water prior to running in tubing. Once wellbore is safe to enter, tally, drift, and run in hole 60.3mm tubing with PSN on bottom to 530mGd. Circulate well to water, allowing sufficient time for gas from below tubing bottom to percolate through fluid. If no fluid returns have been received after 15m³ fluid have been pumped, stop pumping as fluid is entering Guelph due to the low reservoir pressure. If fluid returns are received at surface, monitor annular fluid level to check for fluid losses into Guelph.

Rig up cementers. Break circulation, then pressure test surface lines to 7MPa. Mix and pump 2.0m³ Class G + 2%CaCl₂ + flake kick plug and pump down tubing, displaced as a balanced plug. Allow cement to drop, then POOH tubing. Wait on cement at least 8 hours, then tag kick plug at 480m or shallower. If tag is below 480m, re-set kick plug from tag to above 480m.

Once kick plug is set and tagged, fill casing with water and pressure test kick plug and casing to 7MPa. POOH tubing and rig out service rig.

2) Pressure testing/Polishing Procedures

Move on and rig up rotary drilling rig. Install working spool, double gate BOP's, and annular on 229mm 14MPa casing spool. Function test BOP's. Top up fluid in casing and pressure test blind rams to 3.5MPa low/14MPa high.

RIH 159mm tooth bit on drill string to cement top. Pressure test pipe rams and annular to 3.5MPa low/14MPa high. Polish kick plug from cement top down to 490mKB. POOH drill string and lay down tooth bit. Pick up and RIH 159mm button bit on bent sub, monels and drill string.

3) Horizontal 1 Main hole drilling procedures

Rig up wireline unit. Run gyro survey through drill pipe to orientate bent sub prior to drilling out of existing wellbore. Lock table position so kick off is in correct direction. POOH gyro tool and rig out wireline unit.

Review BOP shut-in procedures and run BOP drills with all crews prior to entering the Guelph gas storage zone. Drill ahead with minimal weight to drill out of old wellbore and build angle. Once formation cuttings are received, increase WOB and continue to build angle. Once the new wellbore is far enough away from the metal of the 178mm casing, use the MWD to orientate bent sub and bit and continue to build angle to horizontal at a planned depth of 619mMD (573.7mTVD). Once wellbore is horizontal, drill ahead as per the directional drilling planning report subject to changes from the wellsite geologist. Monitor flowline for signs of fluid losses once porous Guelph reef is contacted. Do not mix up LCM material to combat loss circulation. Continue to haul in fresh water if required to keep up with fluid losses. If necessary, mix up and pump gell plug sweeps to clean horizontal section to avoid cuttings settling and potential sticking. Drill ahead Horizontal 1 wellbore to planned total depth of 799.4mMD (573.7mTVD). Circulate at TD for 1 hour to move cuttings up horizontal section and hopefully out of the well.

4) Trip out and rig out procedures

Review BOP procedures for shutting in while tripping and prepare a trip sheet. POOH drill string sideways, keeping wellbore full to avoid kicks. Once drill string is pulled, continue to keep well topped up to avoid kicks.

Rig up Weatherford Wireline. Set a wireline set retrievable bridge plug toward the base of the 178mm casing at an approximate depth of 475mKB. POOH wireline and rig out Weatherford.

Pressure test bridge plug to 7MPa to ensure it is sealing. Once the pressure test is complete, bleed off pressure and rig down BOP's. Install 229mm 14MPa x 52mm 14MPa tubing bonnet on casing spool and rig out drilling rig. Move rig off location.

5) Evaluation

After the drilling rig has been moved off location, a service rig will be moved on. The wellhead will be configured as an I/W well (229mm master valve), then the rig will swab fluid from above the bridge plug, retrieve the bridge plug, and the Hor 1 leg in the well will be acidized with endless tubing.

SECTION 5.0 – REPORTING PROCEDURES

Section 5.1 – Tower Sheets

Shall be completed daily and shall include:

1. Bit size, fluid type and weight, weight on bit, deviation surveys, depth at the beginning of the shift and end of each shift.
2. Casing size, grade, weight, and number of joints, centralizers, cement baskets, total length, and setting depth.
3. Cementing information – Service Company, cement type, amount, slurry density, additives, annular fluid returns, volume of displacement fluid and plug down time.
4. Water, gas or oil – type, depth encountered, depth of sample collected and the static level and/or rate of flow.
5. Pressure tests – individually, subsurface pressures, fluid density used in the tests, bleed off rate and duration of test.
6. Logging Details – type and interval.
7. Abandonment details – intervals, amount and type of cement, top of plug and time felt.
8. Rig release – date and time.

Section 5-2 – Worker Injury

Every work related accident or injury shall be reported immediately to the Wellsite Supervisor. The Supervisor shall immediately contact the Ministry of Labour @ 1-800-265-5140 and the Ministry of Natural Resources @ 519-873-4634. The verbal report shall be followed with a written report as per the Occupation Health and Safety Act and the Oil, Gas, & Salt Resources Act and Section 13 of the Operational Standards. The Supervisor will also be responsible for notifying the Operator (Bayfield Resources Inc.) and shall be responsible for the completion of Bayfield's Accident Report Form.

SECTION 6.0 – SAFETY AND PROCEDURES

Section 6.1 – General Safety

1. All works at the well site shall be in compliance with the Occupational Health and Safety Act and the Oil, Gas, & Salt Resources Act and all associated legislation. In addition, all work at the well site shall be done in compliance with good oil field practices. All verbal notification given to and approvals received from government agencies shall be recorded on the tower sheets.
2. Safety meetings are to be held with each crew, at the start of the well and periodically while drilling – meetings shall also be held prior to cementing and upon arrival of the logging company, prior to commencing of directional drilling operations and before the start of underbalanced drilling operations.

3. The Well Site Supervisor shall ensure that the operations are in compliance with all applicable government regulations and shall complete daily walk around rig inspections.

Section 6.2 – Well Control

All blowout prevention systems are to be in strict compliance with MNR regulations. Those function and pressure testing procedures as required by the regulatory bodies, such as daily function testing of the pipe rams, will be strictly adhered to.

1. All pressure tests of blowout prevention equipment will be conducted with fresh water.
2. The following pressure test will be conducted with fresh water prior to drilling out each casing string:
 - a. The blind rams, kill lines and choke manifold will be tested to 1400kPa low and 7000kPa high for 10 minutes each.
 - b. The pipe rams, Kelly cock, stand pipe, swivel, safety valves, etc. will be tested to 1400 kPa low and 7000 kPa high for 10 minutes each.
 - c. The annular preventer will be tested to 1400 kPa low and 7000 kPa high for 10 minutes each.
3. Upon drilling out the casing, drill 0.5m to 1.0m of new hole and test the formation to a minimum bottom hole pressure of 18kPa per meter.
4. After one day of drilling below the casing shoe, check the entire blowout prevention system and tighten all bolts.
5. Crews should be kept alert and familiar with the blowout prevention equipment. At least one member of the crew who has been trained in blowout prevention and well control procedures must be on the floor at all times.
6. Conduct blowout prevention drills prior to drilling out casing and once per week thereafter. Ensure that the drills are recorded in the tour book.
7. The blowout preventers are to be function tested once per tour. Ensure that the function test is recorded on the daily tour sheets.

D 2-4

Application for Well License

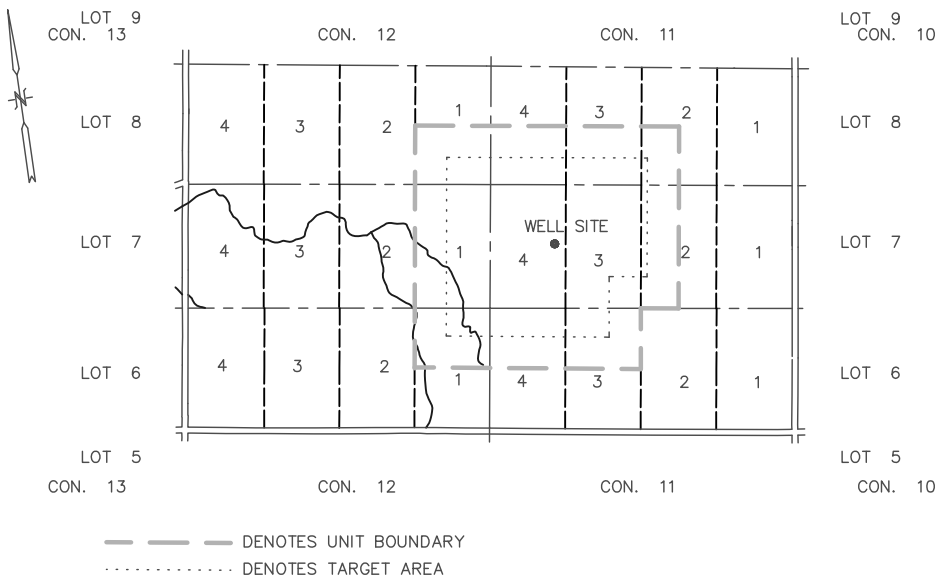
Bayfield Resources et al #4, Stanley 4-7-XI

Table of Contents	Page
Form 1: Application for Well License	2
Survey	3
Drilling Program	4



v.2000-08-18

Date of Birth	Feb. 12, 1955.	Title	President
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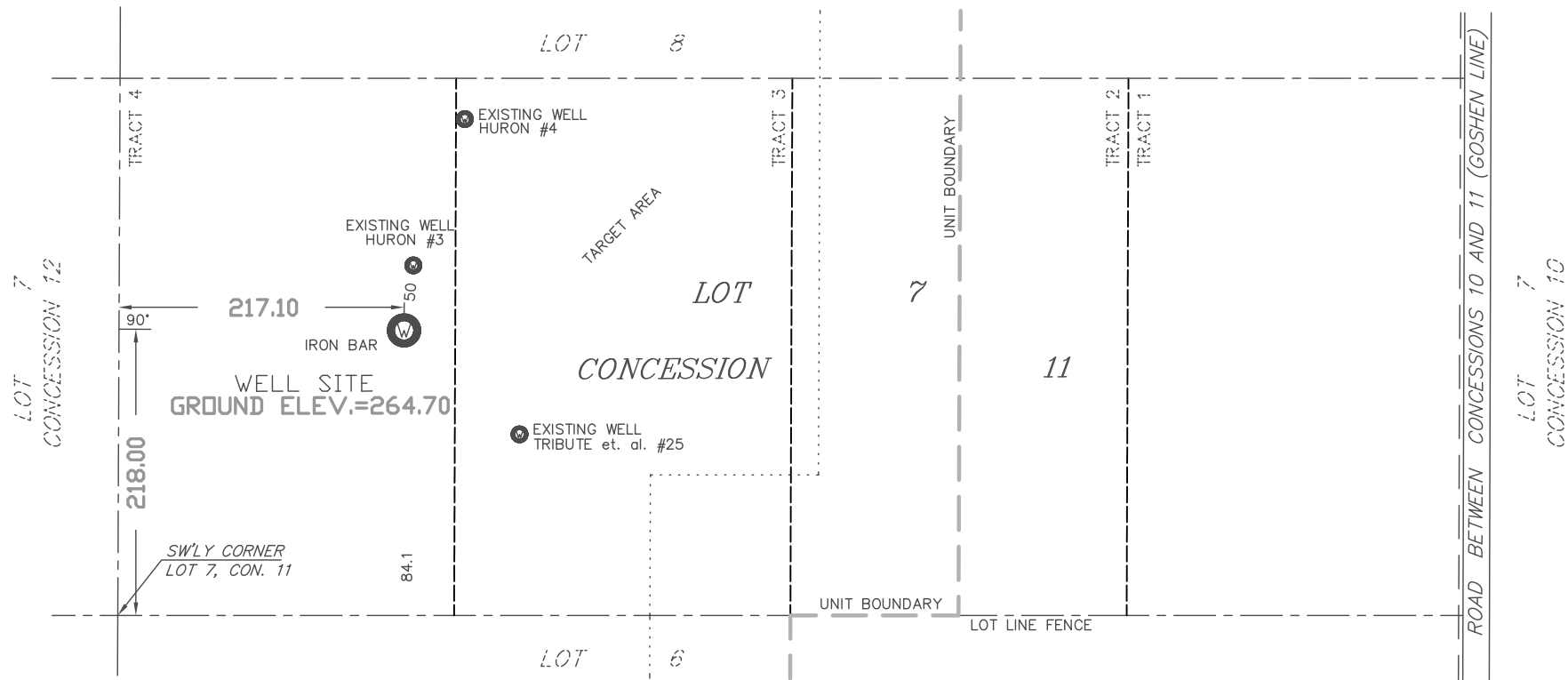


PLAN OF PROPOSED WELL
LOT 7
CONCESSION 11
GEOGRAPHIC TOWNSHIP OF STANLEY
MUNICIPALITY OF CENTRAL HURON
COUNTY OF HURON

SCALE 1:5000

WELL NAME
BAYFIELD RESOURCES et. al. #4 - STANLEY - 4 - 7 - 11

NOTE (WELL SITE) CO-ORDINATES
LATITUDE N.43°28'47.971" LONGITUDE W.81°38'49.760"
U.T.M. N.4 814 322.7 E.447 663.8



--- DENOTES UNIT BOUNDARY
..... DENOTES TARGET AREA

NOTE METRIC
DISTANCES SHOWN ON THIS PLAN ARE IN METERS AND
CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

PREPARED BY
BRISCO AND O'ROURKE
1425331 ONTARIO LIMITED
SERVING THE PETROLEUM INDUSTRY
THROUGHOUT ONTARIO
WELLS, CONSTRUCTION AND TECHNICAL SURVEYING
DIGITAL MAPPING
LAND AND LEASE SURVEYS
OFFICE (519) 351-5073
CELL (519) 401-5073
FAX (519) 351-3119
PO BOX 327 - N7M-5K4
CHATHAM, ONTARIO

NOTE BENCH MARK
ELEVATIONS ARE REFERRED TO GEODETIC DATUM AND
REFERENCE BENCH MARK BEING
MONUMENT No.72U095 BAYFIELD
ELEVATION = 199.914

NOTE GEODETIC HORIZONTAL CONTROL
U.T.M. CO-ORDINATES ARE GEODETIC (DATUM NAD 83)
AND REFERRED TO MONUMENTS
00819711196 AND 00819711197

PREPARED FOR
BAYFIELD RESOURCES INC.

FILE NO. 09-4933 PLAN NO. TRI6309.DWG

SEPTEMBER 17, 2009

TIMOTHY J. O'ROURKE C.S.T. A.C.E.T.

AUTHORIZED BY THE MINISTER OF NATURAL RESOURCES
UNDER THE PETROLEUM RESOURCES ACT OF ONTARIO

BAYFIELD RESOURCES ET AL # 4: STANLEY 4-7-XI

DRILLING PROGRAM

Cable Tool

TABLE OF CONTENTS

SECTION 1.0 GENERAL DATA

Section 1.1	Well Summary
Section 1.2	Potential Problems
Section 1.3	Contact Numbers

SECTION 2.0 GEOLOGICAL PROGNOSIS

SECTION 3.0 CASING AND CEMENTING SUMMARY

Section 3.1	Summary
Section 3.2	Wellbore Diagram

SECTION 4.0 DRILLING PROCEDURES

Section 4.1	Pre Spud
Section 4.2	Surface Hole & Surface Casing
Section 4.3	Intermediate Hole and Intermediate Casing
Section 4.4	Production Hole & Production Casing
Section 4.5	Main Hole

SECTION 5.0 REPORTING PROCEDURES

Section 5.1	Tower Sheets
Section 5.2	Worker Injury

SECTION 6.0 SAFETY AND PROCEDURES

Section 6.1	General Safety
Section 6.2	Well Control

SECTION 1.0- GENERAL DATA

Section 1.1- Well Summay

Well Name: Bayfield Resources et al #4: Stanley 4-7-XI

Location: Lot 7, Conc. XI, Stanley Twp. Huron County.

Operator: Bayfield Resources Inc.

Objectives: Guelph Formation

Coordinates: Surface:
218.0m North
217.1m East

Total Depth: 583m

Logging Program: Gr-CBL run across Surface, Intermediate, and Production Casings,
Gr-CNL-Z Density in Intermediate and Main Hole, Gr-CNL to
Surface
Casing Inspection Log run across Production Casing

Drilling Contractor: Eastern Oilfield Services Ltd.

Spud Date: Once storage approval is received for Stanley 4-7-XI Pool

Duration: 120 days

Section 1.2- Potential Problems

- 1) There are gravel, boulders, and sand in the overburden that will cause hole cleaning problems and may contain fresh water. The glacial till must be shut off with the conductor casing(s) or a cement squeeze or problems will be experienced drilling the surface hole. The gravel and sand zone is from surface to the top of the bedrock at 91 meters.
- 2) The bedrock surface is karsted and fractured so the wellbore face will not likely support a column of fresh water. If the uphole gravels and sands are not completely shut off with the conductor casing(s) and/or cement squeezes prior to entering the bedrock, the gravels and sands could slough into the hole, with potential tool sticking and casing running problems.
- 3) Local fresh ground water wells withdraw from about the 280 to 310 ft (85 to 94m) depth at the bedrock surface and in the top of the Dundee. The aquifer transition from fresh water to sulphur water is in the Dundee formation. The surface hole needs to be TD'd prior to entering the sulphur water, yet below all potable water. Stop drilling surface hole at any indication of sulphur water or at 100m, whichever is shallower.

- 4) There is potential for hole caving and instability from the bedrock surface to about 160m due to karsting. Depending upon the severity of the caving/hole instability, consideration will be given to cement squeezes and/or plugging the hole back in stages, to provide stability to the hole and to reduce losses during the cementing of the casing.
- 5) There is potential for loss circulation while cementing the 273mm and 219mm casings. Depending upon the severity of the problem, consideration will be given to running 200%± excess cement.
- 6) Up to 50 meters of B Salt will be present while drilling through the Salina section. The bailing fluid will need to be switched to saturated brine prior to drilling this section of the well.
- 7) Even with the low reservoir pressure, significant gas permeability may be present while drilling through the Guelph reef below the 178mm casing. If necessary, full lubricator drilling may be required.
- 8) The well is to be cased as a vertical well with 178mm casing set about 20m below the cap A2 Anhydrite in the salt plugged A1/Guelph. If any gas shows are encountered within the top 20m of the Guelph, the 2nd intermediate hole will need to be TD'd at that depth and 178mm casing installed there.

Section 1.3- Contact Numbers

Bayfield Resources Inc.

Jane Lowrie	President	Office	(519) 657-2151
		Fax	(519) 657-4296
		Mobile	(519) 871-9096
Neil Hoey	Geologist	Office	(519) 472-4776
		Fax	(519) 472-4776
		Mobile	(519) 649-6918
Jim McIntosh	Supervisor /Examiner	Office	(519) 657-2151
		Fax	(519) 657-4296
		Mobile	(519) 878-1006

Eastern Oilfield Services Ltd.

Ron Livingston	Tool Push	Office	(519) 695-3852
		Fax	(519) 695-3811
		Mobile	(519) 359-1106
		Pager	(888) 296-7912

Rig 33			(519) 359-1153
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Schlumberger Canada Ltd.

Jay Rookes	Engineer-In-Charge	Office	(519) 652-5053
		Fax	(519) 652-6002
		Mobile	(519) 494-5292

Harold Marcus Ltd.

Dispatch		Office	(519) 695-3734 800-265-9426
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Government & Other Agencies

MNR	Petroleum Resources	Office	(519) 873-4634
		Fax	(519) 873-4654
MOEE	Spill Reporting		1-800-268-6060
MOL	Health & Safety		1-800-265-1676
OPP	Communication Centre		1-800-265-7191

SECTION 2.0 - GEOLOGICAL PROGNOSIS

Well: Bayfield Resources et al #4

Location: Stanley 4-7-XI

Ground Elevation: 264.7 m

RF Elevation: 266.0 m

Geological Formation	Formation (mMD)	Depth (mTVD)	Elevation (m ss)	Thickness (mTVD)	Fluid Type	Fluid Depth (mFRF)	Oil/ Gas	Depth (mTVD)	Pressure (kPa)
Drift	1.3	1.3	264.7	89.7	Fresh	11			
Dundee	91.0	91.0	175.0	10.5	Fresh	91			
Lucas	101.5	101.5	164.5	39.5	Sulphur	130+			
Amherstburg	141.0	141.0	125.0	27.0					
Bois Blanc	168.0	168.0	98.0	66.0					
Bass Islands	234.0	234.0	32.0	50.0					
G Unit	284.0	284.0	-18.0	7.5					
F Unit	291.5	291.5	-25.5	27.0					
E Unit		318.5	-52.5	49.0					
D Unit		367.5	-101.5	8.5					
C Unit		376.0	-110.0	12.0					
B Unit		388.0	-122.0	6.5					
B Salt		394.5	-128.5	58.5					
B Anhydrite		453.0	-187.0	0.5					
A-2 Carbonate		453.5	-187.5	19.4					
A-2 Shale		472.9	-206.9	1.6					
A-2 Anhydrite		474.5	-208.5	7.4					
Guelph		481.9	-215.9	101.1			Gas	580	
Total Depth		583.0	-317.0						

SECTION 3.0- CASING AND CEMENTING SUMMARY

Section 3.1- Summary

Conductor Casing:

Hole Size (mm)	Csg. Size OD (mm)	Weight (kg/m)	Grade	Depth (m)	Cementing
406	406	96.73	LS	90	Driven to bedrock and cement squeeze if necessary to shut of fresh water.

Conductor Casing (2) – If necessary:

Hole Size (mm)	Csg. Size OD (mm)	Weight (kg/m)	Grade	Depth (m)	Cementing
381	340	81.1	LS	90	Cemented to surface using RFC Light tailed with Class G+2%CaCl ₂ cement (200% excess)

Surface Casing:

Hole Size (mm)	Csg. Size OD (mm)	Weight (kg/m)	Grade	Depth (m)	Cementing
310	273	60.26	J55	100	Cemented to surface using RFC Light tailed with Class G+2%CaCl ₂ cement (200% excess)

Intermediate Casing:

Hole Size (mm)	Csg. Size OD (mm)	Weight (kg/m)	Grade	Depth (m)	Cementing
254	219	35.6	J55	297	Cemented to surface with RFC Light tailed with Class G+2% CaCl ₂ (100% excess).

Production Casing:

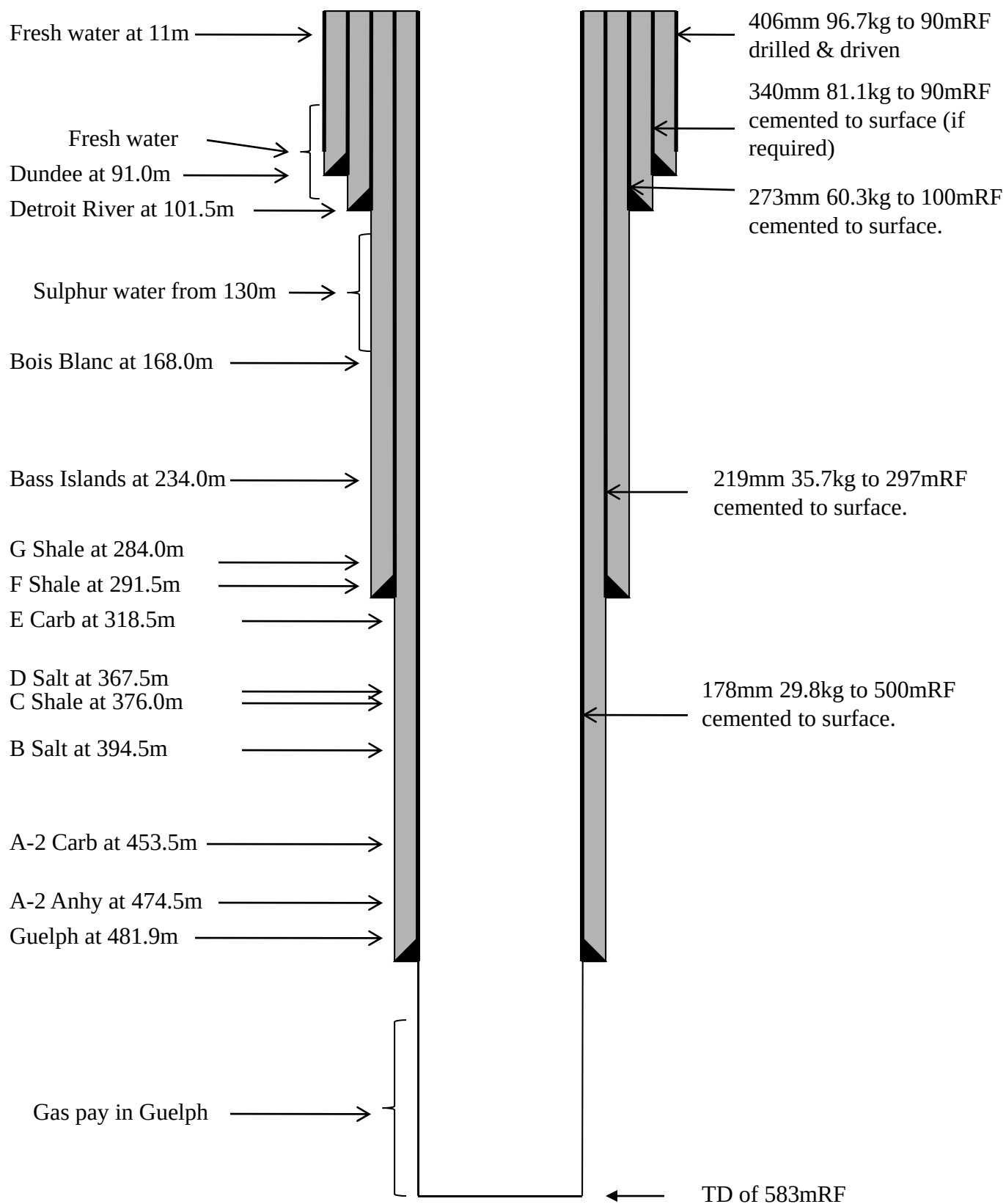
Hole Size (mm)	Csg. Size OD (mm)	Weight (kg/m)	Grade	Depth (m)	Cementing
203	178	29.76	J55	500	Cemented to surface with 30% excess.

Main Hole:

A 159mm hole will be drilled to TD.

Wellbore Schematic Diagram

Bayfield Resources et al #4: Stanley 4-7-XI Wellbore



SECTION 4.0 -DRILLING PROCEDURES

Section 4.1- Conductor Hole(s) and Conductor Casing(s)

1. Notification

Contact landowner to notify of rig move and to locate, mark and if necessary re-route drainage tiles. Send a spud notice to the Ministry of Natural Resources via fax (519-873-4645) 48 hours prior to the drilling of the well.

2. Move in and rig up Cable Tool Rig, in compliance with MNR's Acts and Regulations. Drill and drive 406mm casing to bedrock, to an approximate depth of 91m. Note any occurrence of water and record type of water, depth encountered, static level of water and/or flow rate. If fresh water is encountered during drilling, the well must be bail tested for at least 15 minutes, after the casing has been landed, to ensure that the fresh water has been shut-off. If the fresh water has not been shut-off, be prepared to perform a cement squeeze at the direction of the Wellsite Supervisor.

Cement Squeeze (if necessary)

If fresh water is found in the drift and is not shut off by the conductor casing, a flow rate will be established and a cement squeeze will be performed, using the cement volumes determined by the Wellsite supervisor. WOC 12 hours and bail the hole dry and monitor the well for at least 15 minutes to determine if the water has been shut-off. If necessary, the process will be repeated until the water is shut-off.

3. Depending on hole conditions it may be necessary to run a second conductor string. Drill 381mm hole and run 340mm casing to an approximate depth of 91m. Note any occurrence of water and record type of water, depth encountered, static level of water and/or flow rate.
4. Cementing Program

Rig in cementers and conduct a pre-job safety meeting, to confirm volumes, pressure limitations, personnel responsibilities and safety precautions. Establish circulation with the hole full of fresh water. Ensure that pressure recorder is rigged in and serviceable and that the chart is attached to the final ticket. Pressure test surface equipment to 60% of internal yield pressure of casing. Collect and label at least 4 cement samples, representing each stage of cementing - the beginning, middle and end of the cement job. Continuously mix and pump the required volume of RFC Light tailed in with 0:1:0 Class G cement plus 2% CaCl_2 , with a density of 1901 kg/m^3 . Displace the cement such that at least 5 metres of cement is left inside of the 340mm casing. After 24 hours, the cement level in the annulus will be checked and if the cement is not at surface, the 340mm casing will be grouted to surface:

340mm x 381mm Annulus

Attempt to establish feed rate - if feed rate sufficient, mix and pump annular volume plus 30% Class G neat cement - wait on cement one hour and repeat until cement to surface. If feed rate cannot be established, the remainder of the annular space will be grouted to surface using tubing.

Section 4.2- Surface Hole and Surface Casing

1. Drilling Method

Drill 310mm hole to approximately 100m, into the top of the Detroit River formation at the direction of the wellsite geologist, below the deepest occurrence of fresh water at 91m. Collect drill cutting samples every 3 metres as per MNR OGSR Standards Version 2.0. Note any occurrence of water and record type of water, depth encountered, static level of water and/or flow rate.

2. Casing Installation

Depending upon hole conditions encountered, the 273mm casing will be run in the following manner:

- Texas Shoe
- 273mm casing to surface

3. Cementing Program

Rig in cementers and conduct a pre-job safety meeting, to confirm volumes, pressure limitations, personnel responsibilities and safety precautions. Establish circulation with the hole full of fresh water. Ensure that pressure recorder is rigged in and serviceable and that the chart is attached to the final ticket. Pressure test surface equipment to 60% of internal yield pressure of casing. Collect and label at least 4 cement samples, representing each stage of cementing - the beginning, middle and end of the cement job. Continuously mix and pump the required volume of RFC Light tailed with 0:1:0 Class G cement plus 2% CaCl_2 , with a density of 1901 kg/m^3 . If loss circulation is an issue, consideration may be given to including Cemnet to heal up losses. Displace the cement such that at least 5 metres of cement is left inside of the 273mm casing. After 24 hours, the cement level in the annulus will be checked and if the cement is not at surface, the 273mm casing will be grouted to surface:

340mm x 273mm Annulus

Attempt to establish feed rate - if feed rate sufficient, mix and pump annular volume plus 30% Class G neat cement - wait on cement one hour and repeat until cement to surface. If feed rate cannot be established, the remainder of the annular space will be grouted to surface using tubing.

4. Logging Program

Once all cementing operations are complete, move on logging equipment and run a Gr-CBL log from the cement top to surface to confirm a good cement job.

Section 4.3- Intermediate Hole and Intermediate Casing

1. Pressure Testing

Install a full opening 273mm valve and when the cement samples indicate that the cement is competent, the rig will proceed to pressure test the divertor system and casing. The valve and surface casing will be pressure tested for 15 minutes each, with the hole full of fresh water, to a surface pressure of 3500kPa. Drill out plug, cement and approximately 0.5m of new formation and perform a pressure integrity test. Bottom hole pressure must not exceed a pressure gradient of 18kPa/m (0.8psi/ft) at the surface casing shoe. The results of the pressure tests will be recorded on the tour sheets

2. Drilling Method

Drill 254mm hole to the intermediate casing point, 5m± into the F Unit formation. Note any shows of brine or loss circulation zones and the intermediate cement job will be adjusted to reflect the characteristics of the hole.

3. Intermediate Casing Installation

Install 219mm casing in the following manner:

- Guide shoe
- One joint 219mm casing
- Float collar or Float Insert
- Centralizers will be installed above the float collar, parallel with the casing shoe around water zones and every 10th joint to surface
- 219mm casing to surface

4. Cementing Program

Rig in cementers and conduct a pre-job safety meeting, to confirm volumes, pressure limitations, personnel responsibilities and safety precautions. Establish circulation with the hole full of fresh water. Ensure that pressure recorder is rigged in and serviceable and that the chart is attached to the final ticket. Pressure test surface equipment to 60% of internal yield pressure of casing. Collect and label at least 4 cement samples, representing each stage of cementing - the beginning, middle and end of the cement job. Continuously mix and pump the required volume of RFC Light + Cemnet tailed with 0:1:0 Class G cement plus 2% CaCl₂ + Cemnet, with a density of 1901 kg/m³. Displace the cement and bump the plug to the required pressure. Set casing in the slips and do not disturb the casing until the cement had reached a compressive strength of 3500kPa (500psi) or greater. After 24 hours, the cement level in the annulus will be checked and if the cement is not at surface, the 219mm casing will be grouted to surface:

273mm x 219mm Annulus

Attempt to establish feed rate - if feed rate sufficient, mix and pump annular volume plus 30% Class G neat cement - wait on cement one hour and repeat until cement to surface. If feed rate cannot be established, the remainder of the annular space will be grouted to surface

using tubing.

5. Logging Program

Once all cementing operations are complete, rig up wireline unit and run a Gr-CBL log from the cement top to surface to confirm a good cement job.

Section 4.4- Production Hole & Production Casing

1. Pressure Testing

After BOPs are installed and cement samples indicate that the cement is competent, the rig will proceed to pressure test the BOPs. The intermediate casing and each part of the BOPs will be pressure tested for 15 minutes to 7000kPa surface pressure. Each component of the BOPs must pass, before continuing with operations. Drill out plug, cement and approximately 0.5m of new formation and perform a pressure integrity test. Bottom hole pressure must not exceed a pressure gradient of 18kPa/m (0.8psi/ft) at the intermediate casing shoe. The results of the pressure tests will be recorded on the tour sheets.

2. Drilling Method

Drill 203mm hole to the base of the A-2 Anhydrite formation. Continue to drill into the Guelph formation. Stop drilling at any signs of gas, or 20 meters into the Guelph, whichever comes first - casing TD will be called at the discretion of the Wellsite Geologist. A stub lubricator will be installed 10m prior to penetrating the A-2 Anhydrite and a full lubricator system will be installed if any of the following conditions exist:

Gas is encountered and the H₂S content is greater than 100ppm
When flows of natural gas exceed 7.0 10³m³ per day (250 mcf/d).

3. Open Hole Logging Program

Bail/pump in sufficient water to have the fluid level up to at least the base of the 219mm intermediate casing. Move on wireline truck and run a Gr-CNL-Z Density log from TD to the base of the 219m casing. Continue with the Gr-CNL to surface.

4. Production Casing Installation

The 178mm casing will be run in the following manner:

- Guide shoe
- One joint 178mm casing
- Float Insert or Float Collar
- Centralizers will be installed on the bottom 5 collars and every 10th joint to surface and around water zones
- 178mm casing to surface

5. Production Casing Cementing Program

MIRU Cementers. Ensure pressure recorder is rigged in and serviceable. Pressure charts will be attached to the job ticket. Conduct a pre-job safety meeting to confirm volumes and procedures.

Establish circulation using pump truck. The casing and the hole will be circulated with fresh water for 15 minutes to clean the borehole and to fill the casing and hole prior to cementing. Pressure test surface equipment to 60% of internal yield of casing. Pump preflush of 2.0m^3 of fresh water, with the addition of loss circulation material if necessary. Ensure that a minimum of 4 cement samples is taken and represent the cement at the beginning, middle and end of the cement job. Mix and pump sufficient quantities of Class G plus 18% salt, tailed in with Class G + 2% CaCl_2 with a density of 1901 kg/m^3 -final cement volumes will be calculated to ensure that hole volume plus 30% excess cement is run. Design the cement job such that the tail cement top will be at about the base of the B Salt zone. Displace cement and bump plug to a minimum of 3.5 Mpa, do not exceed 60% internal yield pressure of casing - close casing valves and bleed off surface line pressure. Wait on cement at least 12 hours before slacking off casing and nipping up BOPS.

6. Casing Logging Program

Rig up loggers and run Cement Bond Log to surface. Run a casing inspection log across the 178mm casing to confirm good quality steel casing and to serve as a base casing inspection log for the well.

Section 4.5- Main Hole

1. Pressure Testing

After BOPs are installed and cement samples indicate that the cement is competent, the rig will proceed to pressure test the BOPs. The production casing and each part of the BOPs will be pressure tested for 4 hours stabilized to 10,500kPa surface pressure. Each component of the BOPs must pass before continuing with operations. Drill out plug, cement and approximately 0.5m of new formation and perform a pressure integrity test. Bottom hole pressure must not exceed a pressure gradient of 18kPa/m (0.8psi/ft) at the production casing shoe. The results of the pressure tests will be recorded on the tour sheets.

2. Drilling Method

Drill 159mm hole to approximately 583m, into the base of the Guelph formation - final TD will be called at the discretion of the Wellsite Geologist. Note any influx of gas, oil and/or water on the tour sheets. A stub lubricator will be installed prior to drill out and a full lubricator system will be installed if any of the following conditions exist:

Gas is encountered and the H_2S content is greater than 100ppm
When flows of natural gas exceed $7.0\text{ }10^3\text{m}^3$ per day (250 mcf/d).

Continue drilling a 159mm hole to TD, recording the depth, rate of flow, static level and/or pressures of any fluid and/or hydrocarbons that may be encountered. If the well is to be abandoned, it will be plugged in accordance with the Operational Standards - Version 2.0 under Ontario Regulation 245/97.

3. Open Hole Logging Program

Prior to moving on logging equipment, bail/pump in sufficient water to have the fluid level in the well at least above the base of the 178mm casing. Move on logging equipment and run a Gr-CNL-Z Density open hole log from TD to the base of the 178mm casing.

SECTION 5.0 - REPORTING PROCEDURES

Section 5.1- MNR Notification

The MNR shall be notified by Fax @ (519) 873 - 4645:

- Immediately of any change of the information supplied in the well licence application
- 48 hours prior to spudding of the well
- Within 48 hours of suspension of drilling operations prior to reaching TD - notice must include rig release date and TD at rig release
- Within 48 hours after TD has been reached - notice must include completion date and the well's status
- Prior to the plugging of any well
- Immediately of any worker injury occurring at a drill site — a complete written report must follow within 48 hours

Section 5.2- Tour Sheets

Shall be completed daily and shall include:

1. Hole size, bit size, depth at the beginning and end of shift
2. Casing size, new or used, grade, weight, number of joints, total length of casing, casing setting depth, centralizer depth(s), cement basket depth(s), staging tools, etc.
3. Hydrocarbons & Water - type, depth encountered and depth of sample, if collected
4. Cement type, amount, slurry density, additives, cementing test pressures, annular fluid returns, volume of displacement fluid, actual cementing pressures, pressure used to bump plug and plug down time, wait-on-cement times and depth cement tagged inside the casing
5. Pressure tests - each component and stage recorded individually, initial pressure, surface pressure(s), final pressure, density and type of fluid used in pressure test, duration of test and bleed-off rate, if any.
6. Logging details - type and interval
7. Abandonment details - depth and length of plug, cement volumes and density, plug tagging

depth, amount of casing recovered, cased hole bridge plugs - setting depth and pressure testing details

8. Rig release - date and time

SECTION 6.0 - SAFETY AND PROCEDURES

Section 6.1- Safety

All works at the well site shall be in compliance with the Occupational Health and Safety Act and the Oil, Gas & Salt Resources Act. In addition, all works at the well site shall be done in compliance with good oil field practices. All verbal notifications given to and approvals received from government agencies shall be recorded on the tower sheets.

Safety meetings are to be held with each crew, at the start of the well and periodically while drilling - meetings shall be held prior to cementing and logging operations. BOP drills will be conducted prior to drilling out the intermediate and production casings.

The Wellsite Supervisor will ensure that the operations are in compliance with all applicable government regulations and Tribute's safety policies and shall conduct daily walk around rig inspections.

Section 6.2 - Well Control

All blowout prevention systems are to be in strict compliance with MNR regulations. Those function and pressure testing guidelines as required by the regulatory bodies will be strictly adhered to.

1. All pressure tests of blowout prevention equipment will be conducted with fresh water.
2. The following pressure test will be conducted with fresh water prior to drilling out each casing string:
 - a. The casing, orbit valve and annular preventer will be tested individually to the pressure prescribed by the drilling program.
3. Upon drilling out the casing, drill 0.5m to 1.0m of new hole and test the formation to a minimum bottom hole pressure of 18 kPa per metre.
4. After one day of drilling below the casing shoe, check the entire blowout prevention system and tighten all bolts.
5. Crews should be kept alert and familiar with the blowout prevention equipment. At least one member of the crew who has been trained in blowout prevention and well control procedures must be on the floor at all times.
6. Conduct blowout prevention drills prior to drilling out casing and once per week thereafter. Ensure that the drills are recorded in the tour book.

7. The blowout preventers are to be function tested once per tour. Ensure that the function test is recorded on the daily tour sheets.

Stanley 4-7-XI Pool

Connecting Pipeline and Metering Station Description

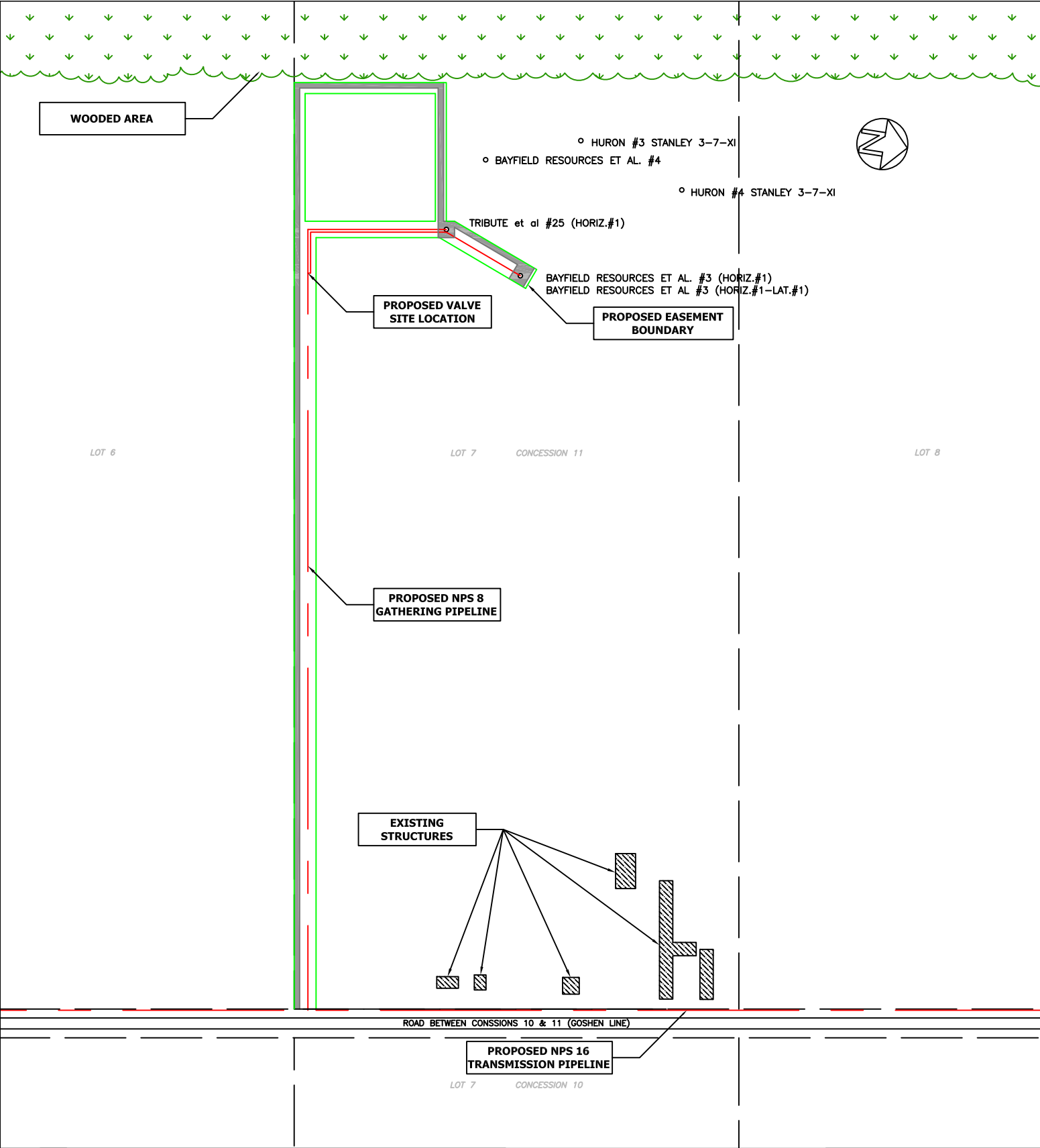
September-20-09

The Stanley 4-7-XI Pool will contain Injection/Withdrawal (I/W) wells with NPS 8 pool gathering pipelines that connect the I/W wells to the Pool Meter, Pressure and Volume Control Station (PMPVC Station).

The PMPVC Station is designed to perform all functions outlined below:

- 1) Measure gas volumes on both injection into and withdrawal from the storage pool.
- 2) Measure pool gathering system pressures.
- 3) Remove all free water and other non-gaseous material from the gas stream on withdrawal.
- 4) Store all fluids recovered on withdrawal in a tank local to the PMPVC Station.
- 5) Provide control valve functioning to hold back injections into the storage pool to allow the other storage pool(s) in the system to preferentially accept more of the gas discharging from the compressor station.
- 6) Provide Emergency Shut-Down (ESD) capabilities to remotely shut in the pool.
- 7) Provide pig launching capabilities to allow the transmission line from the storage pool to be pigged.
- 8) Collect pressure measurements from the Observation Well(s) for the pool.
- 9) Send gas measurement and pressure data from the pool back to the central control system located at the compressor station. Receive signals from the central control system for control valve adjustment and ESD valve functioning.
- 10) House the cathodic protection rectifier that will provide cathodic protection to the I/W and Observation wells and to the storage pool gathering system.
- 11) Allow for tying-in additional I/W wells to the PMPVC Station piping if additional I/W wells are required in the future.

The major pieces of equipment at the PMPVC Station are a bi-directional ultrasonic meter, coalescing filter/slug catcher, storage tank, ESD valve, and control valve. With the relatively small footprint of the equipment required in the PMPVC Station, Bayfield Resources plans to align the equipment parallel to one of the laneways serving the I/W wells to minimize the ground disturbance associated with permanent gas storage operations.



REVISIONS				
NO.	DATE	BY	APP'D	REMARKS

CONNECTING PIPELINE AND METERING STATION PLAN - STANLEY 4-7-XI POOL

DRAWN BY:	C. Butler	DATE:	09/12/09	SCALE:	NTS
CHECKED BY:		DATE:			
APPROVED BY:		DATE:		SHEET:	1 of 1

Connecting Pipeline Design Specifications (as per CSA Z662.07: Oil and Gas Pipeline Systems)

Location	Class 1	Class 2
Design Factor, F	0.8	0.8
Total Distance	< 1 kms	0.0 kms
Location Factor, L - General	1.000	0.900
Location Factor, L - Roads	0.750	0.625
Location Factor, L - Stations	0.625	0.625
Corrosion Allowance, ca	None	None
Isolation valve spacing	None req'd	25 kms
Maximum Allowable Operating Pressure	9930 kPa (1440 psi)	9930 kPa (1440 psi)
Test Medium	Water	Water
Minimum Test Duration	8 hrs	8 hrs
Minimum Strength Test Pressure	12500 kPa (1820 psi)	12500 kPa (1820 psi)
Valve/Flange Pressure Rating	PN 100 (ANSI 600)	PN 100 (ANSI 600)
Minimum Depth of Cover		
Along Road Allowances	1.5 m	1.5 m
Road Crossings	2.0 m	2.0 m
Stream/River Water Crossings	1.5 m	1.5 m
Drain Crossings	1.5 m	1.5 m
Agricultural Land	1.0 m	1.0 m

Pipe Specifications

	Metric Units	Imperial Units
Nominal Pipe Size	NPS8	NPS8
Pipe OD	219 mm	8.625 in
Wall Thickness - Class 1 General	4.0 mm	0.156 in
Wall Thickness - Class 1 roads	4.0 mm	0.156 in
Wall Thickness - Class 1 stations	5.2 mm	0.203 in
Wall Thickness - Class 2 roads	5.2 mm	0.203 in
Wall Thickness - Class 2 stations	5.2 mm	0.203 in
Grade	448	65,000
Category	II	II
Pipe Type	ERW	ERW
Coating	Yellow Jacket	Yellow Jacket



Stantec Consulting Ltd.
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Stantec

September 21, 2009
File: 1609-00533/04

Bayfield Resources Inc.
309 Commissioners Rd W., Unit E
London, Ontario, N6J 1Y4

Attention: Mr. Bill Blake

Dear Mr. Blake:

**Reference: Private/Residential Well Monitoring Program
Stanley 4-7-XI Storage Pool Project**

Stantec Consulting Ltd. (Stantec) is pleased to provide Bayfield Resources Inc. (Bayfield Resources) with the recommended monitoring program for private well monitoring in the vicinity of the Stanley 4-7-XI Storage Pool. Bayfield Resources is currently developing the Stanley 4-7-XI Storage Pool, which consists of two (2) existing gas wells (Well T006307/Huron #4, Stanley 4-7-XI and Well T011820/Tribute Resources et al #25, Stanley 3-7-XI), one (1) plugged and abandoned well (Well T005885/Huron #3), and two (2) proposed gas well (Bayfield Resources et al #3 (Horiz.#1), Stanley 3-7-XI and Bayfield Resources et al #4, Stanley 4-7-XI).

The following letter presents the proposed monitoring program for the Stanley 4-7-XI Storage Pool, which is intended to establish groundwater conditions for comparative purposes should groundwater interference complaints arise as a result of the future construction or operation of the proposed works.

Stanley Storage Pool Monitoring Program

Baseline water quality monitoring was completed in October/November 2008 for residential wells within the Stanley 4-7-XI Storage Pool DSA and/or within a 1 km radius of existing gas wells (Well T006307/Huron #4 Stanley 4-7-XI and Well T0011820/Tribute Resources et al #25, Stanley 3-7-XI) and the plugged and abandoned well (Well T005885/Huron #3, Stanley 4-7-XI) (Stantec, 2009¹). The monitoring program included water quality sampling (general chemistry, metals, anions, methane, ethane, ethene, propane and hydrogen sulfide), and documenting water supply details and residential concerns. Following sampling, water quality results were provided in an individual letter to each resident.

Stantec recommends that prior to drilling of Bayfield Resources et al #3 (Horiz.#1), Stanley 3-7-XI and Bayfield Resources et al #4, Stanley 4-7-XI, the baseline monitoring program completed by Stantec (2009) be reassessed to evaluate if any additional baseline residential sampling is required prior to drilling. Additional sampling may be required if the extent of the 1 km radius is significantly altered based on the proposed locations of Bayfield Resources et al #3 (Horiz.#1), Stanley 3-7-XI and Bayfield Resources et al #4, Stanley 4-7-XI.

Stantec also recommends residential water quality sampling, for the parameters detailed above, following drilling of the vertical component of Bayfield Resources et al #3 (Horiz.#1), Stanley 3-7-XI and Bayfield Resources et al #4, Stanley 4-7-XI and annual sampling in each of the five (5) years following the year in which natural gas is first injected into the Stanley 4-7-XI Storage Pool.

¹ Stantec, 2009. Residential/Private Well Monitoring Program, Stanley Storage Pool. Prepared for Tribute Resources Inc., Feb. 2009.

**Reference: Private/Residential Well Monitoring Program
Stanley 4-7-XI Storage Pool Project**

The proposed monitoring program for the Stanley 4-7-XI Storage Pool is similar in scope to previous storage pool monitoring programs completed by Stantec. The monitoring programs should be modified to include any additional sampling required by the Ontario Energy Board (OEB).

We trust that this proposed monitoring program meets your current requirements. Individual work programs and cost estimates can be completed for the recommended monitoring as requested. If there are any questions or concerns, please do not hesitate to contact the undersigned.

Sincerely,

STANTEC CONSULTING LTD.



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Stanley 4-7-XI Gas Storage Pool

Reservoir Monitoring Program

September-13-09

The Stanley 4-7-XI pool (the “Stanley Pool”) will be developed for gas storage with four wellbore penetrations. Bayfield et al #3 (Horiz. #1), Bayfield et al #3 (Horiz. #1-Lat. #1), and Tribute 25 (Horiz. #1) will be used as I/W wells for the pool and Bayfield et al #4 will be the Observation well for the pool. The only two other pool penetrations, Huron #3 and Huron #4, will be plugged and abandoned prior to commencing pool use as a gas storage container.

The Stanley Pool Meter, Pressure, and Volume Control Station (the “PMPVC Station”) will be the interconnection point between the pool and the pipeline and compression system delivering gas to and from the Lobo interconnect with Union Gas. The PMPVC Station will, among other things, measure the gathering system pressure in the pool on a continuous basis. The gathering system is connected to the I/W well(s), so this gathering system pressure will be a direct measure of the wellhead pressures for the I/W wells. In addition to the gathering system pressure monitoring, the PMPVC Station will also record and transmit pressure information from the Observation well and flow rate information for injection and withdrawal rates to and from the pool. The Observation well pressure is a more direct measure of the Stanley Pool reservoir pressure as it is not influenced by friction pressures, etc. The gathering system pressure, Observation well pressure, and flow rate information will be transmitted to the central control station at the compressor station and to the remote monitoring system.

The pressure and flow rate information will continually be plotted on a pressure versus volume material balance plot. During the first one or two injection and withdrawal seasons the pressure/volume plot will confirm the effective size of the Stanley Pool. Pressures during subsequent injection and withdrawal seasons will plot along this established material balance line and will be used to quickly detect if there is any deviation from the established pressure/volume relationship. The relationship between the Observation well pressures and the equivalent gathering system pressures will be used as an indication of any changes in the injection or withdrawal potential of the I/W wells. Any changes in the effective gas permeability in the near wellbore area around the I/W wells as a result of fines migration or connate water movement through the pool will be noticeable by plotting the gathering system pressure versus the Observation well pressure. If the effective gas permeability near the I/W wellbores start to deteriorate, injection and withdrawal rates can be adjusted to lessen the rate of deterioration. As well, much of this permeability deterioration can be removed with re-stimulations of the I/W wells. By monitoring the relationship between the pressures, the need for any re-stimulation

1 can be determined and the workover planned to coincide with shut in periods between
2 injection and withdrawal cycles to maximize the use of the Stanley Pool.

3
4 For planned end-of-season shut downs, downhole or surface pressure recorders can be
5 installed on the individual I/W wells and the pressure falloff or buildup measured after the well
6 is shut in. The reservoir data that will result from analysing the pressure data will also indicate
7 any changes in the near wellbore permeability. This buildup/falloff data will indicate if any re-
8 stimulation of the I/W wells is required.

9
10 As required under CSA Z341: Storage of Hydrocarbons in Underground Formations, casing
11 inspection logs will be run on each I/W well and Observation well at least once every 5 years.
12 The casing inspection log will be compared to the original casing inspection log run on the well
13 to look for any deterioration in casing metal or any corrosion effects. If significant metal loss is
14 noted (greater than 60% metal loss), the casing will be pressure tested to confirm casing
15 integrity.

16
17 Casing cathodic protection will be applied to each I/W well and Observation well at the Pool
18 Station. The effectiveness of the cathodic protection applied to each well will be confirmed by
19 measuring potential at each well at least annually.

20
21 The I/W wells will be inspected regularly while the pool is on either gas injection or gas
22 withdrawal. This inspection will include visually inspecting the well for leaks, rust buildup, as
23 well as wellhead pressures. The surface casing vent between the 244mm and 178mm casings
24 will be inspected as well to ensure no pressure develops, which could be an early sign of
25 wellhead seal deterioration, etc. The Observation well will be visually inspected on a regularly
26 scheduled basis during the injection or withdrawal seasons. As with the I/W wells, any pressure
27 that develops in the intermediate casing/production casing annulus will be an early indication
28 of possible wellhead seal deterioration.