

**Conservation and Water Stewardship**

Climate Change and Environmental Protection Division  
Environmental Approvals Branch  
123 Main Street, Suite 160, Winnipeg, Manitoba R3C 1A5  
T 204 945-8321 F 204 945-5229  
[www.gov.mb.ca/conservation/eal](http://www.gov.mb.ca/conservation/eal)

June 12, 2013

Edh. B

Dan Bartel,  
Maintenance Manager  
Barkman Concrete Ltd.  
152 Brandt Street  
Steinbach, MB R5G 0R2

Dear Mr. Bartel:

**Re: Barkman Concrete Site Expansion - Environment Act Proposal**

This letter is in response to the Environment Act Proposal (EAP) you submitted on May 15, 2013 and the follow-up site visit by Manitoba Conservation and Water Stewardship staff on June 5, 2013. The EAP submitted to obtain a licence for the expansion of the existing facility has been reviewed. During the review process, it was identified that the existing facility is operating without an Environment Act Licence.

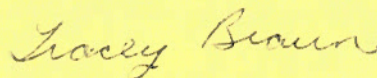
In accordance with Section 10 of *The Environment Act* no person shall operate a Class 1 development without first obtaining a valid licence for the development. As per the *Classes of Development Regulation* your facility is a Class 1 development in the category Manufacturing. Therefore, the continued operation of your facility requires an Environment Act Licence.

Based on the review of the EAP submitted for the expansion and the fact that the existing facility is operating without a licence, we require that you resubmit the EAP to include a request for licensing of the existing facility. In addition to the information submitted for the expansion, the revised EAP must include additional information such as but not limited to the following:

1. List of materials used in the facility and types of products manufactured.
2. The amount of raw materials and final products handled at the facility during a specific period of time.
3. Detailed process descriptions for the existing and proposed facility.
4. Potential environmental impacts and their source/s.
5. Any management plan in place to mitigate the potential environmental impacts.
6. Description of any air emission control equipment installed and operational in the existing facility and to be installed in the proposed expansion.
7. Proposed plan to handle complaints.

Your resubmitted plan will be accepted as a Notice of Alteration to the proposal previously filed and, therefore, no additional application fee will apply. If you have any questions regarding this matter, please contact Mr. Eshetu Beshada of this office at (204) 945-7023.

Yours truly,



Tracey Braun, M.Sc.

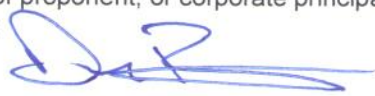
Director

Environmental Approvals Branch

- c. Don Labossiere, Director, Environmental Compliance and Enforcement Branch  
Jason Lasuik, District Supervisor, Environmental Compliance and Enforcement Branch

# Environment Act Proposal Form



Name of the development: Barkman Concrete Ltd.	
Type of development per Classes of Development Regulation (Manitoba Regulation 164/88): Class 1	
Legal name of the proponent of the development: Barkman Concrete Ltd.	
Location (street address, city, town, municipality, legal description) of the development: 152 Brandt Street Steinbach, MB R5G 0R2	
Name of proponent contact person for purposes of the environmental assessment: Dan Bartel, CPMM	
Phone: 204-326-3554	Mailing address: 152 Brandt Street Steinbach, MB R5G 0R2
Fax: 204-326-5915	
Email address: DBartel@BarkmanConcrete.com	
Webpage address: www.barkmanconcrete.com	
Date: Sept 12/2013	Signature of proponent, or corporate principal of corporate proponent: 
	Printed name: Dan Bartel

A complete **Environment Act Proposal (EAP)** consists of the following components:

- **Cover letter**
- **Environment Act Proposal Form**
- **Reports/plans supporting the EAP** (see "Information Bulletin - Environment Act Proposal Report Guidelines" for required information and number of copies)
- **Application fee** (Cheque, payable to Minister of Finance, for the appropriate fee)

**Submit the complete EAP to:**

Director  
Environmental Approvals Branch  
Manitoba Conservation and Water Stewardship  
Suite 160, 123 Main Street  
Winnipeg, Manitoba R3C 1A5

**For more information:**

Phone: (204) 945-8321  
Fax: (204) 945-5229  
<http://www.gov.mb.ca/conservation/eal>

Per Environment Act Fees Regulation (Manitoba Regulation 168/96):	
Class 1 Developments .....	\$500
Class 2 Developments .....	\$5,000
Class 3 Developments:	
Transportation and Transmission Lines .....	\$5,000
Water Developments .....	\$50,000
Energy and Mining .....	\$100,000

## Appendix C - Barkmans Material List

Product	Material	Product Received in	Unit Volume	Unit	On Hand	Department Used
<b>Efflorescence Control</b>						
Colorscape 220	Liquid	Tote	1,000	lt	4 - 14 totes	Mason
Colorscape 180	Liquid	Drum	208	lt	1 - 4 drums	Batching, (Rosetta, Wet Cast, Stone V, Sk8, Kits)
Plastolith HP-4	Liquid	Tote	1,000	lt	1 - 2 totes	Henke
<b>Super Plasticizer/Water Reducer</b>						
Advacast 555	Liquid	Bulk	3,000	lt	200 - 3,000 litres	Batching, (Rosetta, Stone V, Sk8, Kits, Wet Cast)
<b>Air Entrainment</b>						
Micro Air	Liquid	Bulk	2,000	lt	200 - 2,000 litres	Batching, (Rosetta, Stone V, Skate, Kits, Wet Cast)
Micro Air	Liquid	Drum	208	lt	1 - 4 drums	Henke
<b>Accelerator</b>						
Pozzolith NC 534	Liquid	Bulk	4,000	lt	200 - 4,000 litres	Batching, (Mason, Rosetta, Stone V, Wet Cast)
<b>Retarder</b>						
Top Stop Horizontal	Liquid	Drum	208	lt	1 - 4 drums	Vibe Table, Humarbo, Wet Cast, Sk8
MB Heat Cote Lilac	Liquid	Pail	19	lt	2 - 6 pails	Wet Cast, Site Furn, Sk8, Vibe Table
Pozzolith XR100	Liquid	Pail	19	lt	1 - 2 pails	Batching, (Wet Cast), GFRC
<b>Mold Release</b>						
Freedom Form Release	Liquid	Drum	208	lt	1 - 4 drums	Wet Cast, Vibe Table, Humarbo,
Romix RO 396	Liquid	Tote	1,000	lt	1 - 2 drums	Rosetta
Bio Nox	Liquid	Drum	208	lt	1 - 4 drums	GFRC, Wet Cast, Sk8, Kits
Jax Magna-plate 44-2	Grease	Pail	19	lt	2 - 4 pails	Wet Cast,
Crisco	Grease	Carton			1 - 4 cartons	GFRC
Mobil Cut 102	Liquid	Drum	208	lt	1-3 drums	Mason
<b>Polymer</b>						
Forton VF 774	Liquid	Drum	208	lt	8 - 28 drums	GFRC
Daraweld C	Liquid	Drum	208	lt	1 to 4 drums	Stone V
<b>Fibres</b>						
NEG 19 PH-901(20)/V	Glass Fibre	Pallet	600	kg	2 - 7 pallets	GFRC
Strux 90740	Polymer Fibre	Pallet	196	kg	2 pallets	Batching, (Rosetta, Sk8)
<b>Miscellaneous</b>						
Penatron Admix	Powder	Pails/Pallets	1,980	lb	1 pallet	GFRC
Blendcrete	Powder	bags/Pallets	907	kg	1 -3 pallets	Sk8
Rubcrete	Powder	bags/Pallets	907	kg	1 -3 pallets	Sk8
Eclipse Floor 200	Liquid	Drum	208	lt	1 -2 drums	GFRC
Diamond Dust	Flake	Drums/pallets	363	kg	1 -2 pallets	Stone V
PL Landscape	caulking	tube/ carton	295	ml	500 - 2000 tubes	Kits
CSL503 High Heat Sealant	caulking	tube/carton	300	ml	100 - 200 tubes	Kits
<b>Pigments</b>						
Ferispec	Granular	Super Sacs	700-1000	kg	6 - 155 supersacs	Batching, (Mason)
Ferispec	Powder	bags/Pallets	50	lb	200 - 530 bags	Stone V, Batching, (Wet Cast, Stone V, Sk8, Kits, Rosetta)
Ferispec	Liquid	drums	600	lb	14 - 92 drums	Henke, Batching, Rosetta,
Prism/Lanxess	Powder	bags/Pallets	50	lb	50 - 500 bags	Stone V, Batching, (Stone V, Wet Cast, Rosetta, Sk8)
Dupoint Ti Pure R786	Powder	bags/pallets	50	lb	10 - 50 bags	Stone V
Lithochrome Chemstain Classic	Liquid	Containers	19	lts	1 -16 containers	Stone V
Spray Cast	Liquid	Pail	19	lts	8 - 20 pails	Rosetta
<b>Paint</b>						
Waterbourne Acrylic Stain	Liquid	Drum	190	lts	2 - 6 drums	GFRC
Waterbourne Acrylic Stain	Liquid	Pail	3.78	lt	20 - 55 pails	GFRC
Spray Paint						Rosetta
<b>Sealers</b>						
Industra Gloss WB	Liquid	Drums	208	lt	1-8 drums	Packaging
Barrier Ultra Guard	Liquid	Drums	208	lt	1 - 2 drums	Sk8
Techniseal WL4	Liquid	Pails/Pallets	19	lt	1 -2 pails	Kits, GFRC
<b>Cementitious Materials</b>						
General Plant Use - GU	Powder	Bulk	80,000	kg	4,000-80,000 kg	Batching, everywhere except GFRC
GFRC - GU	Powder	Bag/pallet	1,600	kg	1 - 2 pallets	GFRC
GFRC - GU	Powder	Bulk	25,000	kg	2,000 - 25,000 kg	GFRC
Lafarge HE	Powder	Bag/pallet	1,600	kg	1 - 4 pallets	Stone V, GFRC
Ciment Fondu	Powder	Bag/pallet	1,270	kg	10 - 36 pallets	GFRC, Batching
Federal White Cement	Powder	Bag/pallet	1,600	kg	4 -20 pallets	Batching, Stone V, Mason, Henke, GFRC
Coal Creek Fly Ash	Powder	Bulk	52,000	kg	4,000 - 52,000 kg	Batching, everywhere except GFRC
Grancem	Powder	Supersac	1,000	kg	1,000 - 6,000 kg	Henke
<b>Aggregates</b>						
Mixed concrete aggregates	Mixed aggregate	Bulk			50,000 - 250,000 kg	Batching, everywhere except GFRC
Mixed concrete aggregates	Mixed aggregate	Bulk			5,000 - 60,000 kg	Batching, everywhere except GFRC
STKO 50	Fine aggregate	Bag/Pallets	1,450	kg	15 - 30 pallets	GFRC
40/30 Silica Sand	Fine aggregate	Bulk	25,000	kg	2,000 - 25,000 kg	GFRC
40/30 Silica Sand	Fine aggregate	Bag/Pallet	3,200	lb	2 - 6 pallets	Humarbo, Stone V
Speciality aggregates	Mixed Aggregate	Supersac	3,000	lb	0 - 6 supersacs	Batching, (Wet Cast, Henke, Sk8, Vibe table)
MN 10	Expanded Shale	Bulk			200,000-700,000 kg	Batching, Stone V
Stocked for Resale Only (not used in facility processes; kept on-site for sale for Kits)						
Stone Veneer Mortar	Powder	Bag/Pallet	3,200	lb	3 - 10 Pallets	
Polymeric Sand RG+	Powder/sand	Bag/Pallet	1,271	kg	10 - 40 Pallets	
Polymeric Sand HP2	Powder/sand	Bag/Pallet	1,271	kg	1 - 5 Pallets	
Fire Rock Mortar	Powder	Bag/Pallet	2,400	lb	1 - 3 Pallets	
Mortar Pigment	Powder	Pkg/Pallet	810	lbs	1 - 3 Pallets	
Concrete Sealers	Liquid	Pail	4	lt	20 - 150 pails	
Concrete Cleaners	Liquid	Pail	4	lt	8 - 60 pails	
Concrete Sealers	Liquid	Pail	18	lt	5 - 20 pails	
Concrete Cleaners	Liquid	Pail	18	lt	2 - 16 pails	

Note: Data provided by Barkman Concrete Ltd.

**Appendix D: Site Photographs**



**Photograph 1** ↑

Looking northwest from the roof of the main plant near the silos (06/13/13).



**Photograph 2** ↑

Looking south from the roof of the main plant near the silos (06/13/13).



**Photograph 3** ↑

Looking east towards employee parking along Brandt Street (06/13/13).



**Photograph 4** ↑

Looking northeast at metal storage area of the yard (06/13/13).



**Photograph 5** ↑  
Looking northwest towards Barkman's yard storage (06/13/13).



**Photograph 6** ↑  
Looking west towards Barkman's existing retention basin and storage yard (06/13/13).



**Photograph 7** ↑  
Looking north towards residential area (06/13/13).



**Photograph 8** ↑  
Looking northeast at Stonybrook Middle School and residences (06/13/13).



**Photograph 9** ↑  
Looking south towards Steinbach Mini Storage and Memorial Cemetery (06/13/13).



**Photograph 10** ↑  
Looking west towards residential area (06/13/13).



**Photograph 11** ↑  
Looking west towards proposed new paver plant location (06/13/13).



**Photograph 12** ↑  
Looking southeast at the construction of the rubble bunkers (08/01/13).



**Photograph 13** ↑  
Looking west towards Giesbrecht Street and location of the proposed new paver plant (08/01/13).



**Photograph 14** ↑  
Looking southwest towards the proposed new paver plant location (08/01/13).



DATE: 2013/05/02  
TIME: 16:42

# MANITOBA

TITLE NO: 2217094/1

## STATUS OF TITLE

PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	2007/04/05		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	2007/04/17		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

### LEGAL DESCRIPTION:

BARKMAN CONCRETE LTD.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON, IN THE FOLLOWING DESCRIBED LAND:

LOT 10 PLAN 5346 WLTO  
EXC FIRSTLY: NLY 358.5 FEET  
SECONDLY: WORKS PLAN 46066 WLTO  
IN SE 1/4 34-6-6 EPM

### ACTIVE TITLE CHARGE(S):

169452/1 ACCEPTED CAVEAT REG'D: 1957/10/28  
FROM/BY: MANITOBA TELEPHONE SYSTEM  
TO:  
CONSIDERATION: NOTES:

1241307/1 ACCEPTED MORTGAGE REG'D: 1989/12/15  
DESCRIPTION: DEBENTURE  
FROM/BY: BARKMAN CONCRETE LTD  
TO: STEINBACH CREDIT UNION LIMITED  
CONSIDERATION: \$5,000,000.00 NOTES:

CHARGES AFFECTING THIS INSTRUMENT:  
4196964/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

2974602/1 ACCEPTED MORTGAGE REG'D: 2004/04/27  
FROM/BY: BARKMAN CONCRETE LTD.  
TO: LORNE PETER BARKMAN  
CONSIDERATION: \$10,000,000.00 NOTES:

CHARGES AFFECTING THIS INSTRUMENT:  
4196965/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

2974603/1 ACCEPTED MORTGAGE REG'D: 2004/04/27  
FROM/BY: BARKMAN CONCRETE LTD.  
TO: ALAN PETER BARKMAN  
CONSIDERATION: \$10,000,000.00 NOTES:

CHARGES AFFECTING THIS INSTRUMENT:  
4196966/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 2217094/1

\*\*\*\*\* STATUS OF TITLE 2217094/1 CONTINUED ON NEXT PAGE \*\*\*\*\*

DATE: 2013/05/02  
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# MANITOBA

TITLE NO: 2217094/1

## STATUS OF TITLE

PAGE: 2

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	2007/04/05		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	2007/04/17		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

### ACTIVE TITLE CHARGE(S):

4196964/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	STEINBACH CREDIT UNION LIMITED	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:
4196965/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	LORNE PETER BARKMAN	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:
4196966/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	ALAN PETER BARKMAN	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:
4265371/1	ACCEPTED	CAVEAT	REG'D: 2012/08/30
	DESCRIPTION:	EASEMENT	
	FROM/BY:	MTS INC. AND SHAW CABLESYSTEMS LIMITED	
	TO:		
	CONSIDERATION:		NOTES: SLY 3.5 METRES PERP LT 10

### ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	BARKMAN CONCRETE LTD. BOX 1179 STEINBACH, MB.	R5G 1A4

### ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
3433787/1	TREQ	2007/04/05	\$0.00	\$0.00
	PRESENTED BY:	TAYLOR MCCAFFREY LLP		
	FROM:	BARKMAN CONCRETE LTD.		
	TO:			

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 2217094/1

\*\*\*\*\* STATUS OF TITLE 2217094/1 CONTINUED ON NEXT PAGE \*\*\*\*\*

DATE: 2013/05/02  
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# MANITOBA

TITLE NO: 2217094/1

## STATUS OF TITLE

PAGE: 3

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	2007/04/05		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	2007/04/17		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

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### FROM TITLE NUMBER(S):

1153541/1 BAL

### LAND INDEX:

LOT	BLOCK	SURVEY PLAN
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10		5346
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NOTE: SE 1/4 34-6-6E EXC NLY 358.5 FT. AND PLAN 46066

ACCEPTED THIS 5TH DAY OF APRIL, 2007  
BY W.BROWN FOR THE DISTRICT REGISTRAR OF  
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 2217094/1.

\*\*\*\*\* END OF STATUS OF TITLE 2217094/1 \*\*\*\*\*

DATE: 2013/05/02  
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# MANITOBA

TITLE NO: 1915926/1

## STATUS OF TITLE

PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	2002/12/02		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	2002/12/05	CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

### LEGAL DESCRIPTION:

BARKMAN CONCRETE LTD.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON, IN THE FOLLOWING DESCRIBED LAND:

LOT 1 PLAN 41161 WLTO  
IN SE 1/4 34-6-6 EPM

### ACTIVE TITLE CHARGE(S):

168855/1	ACCEPTED	CAVEAT	REG'D: 1957/09/04
	FROM/BY:	MANITOBA TELEPHONE SYSTEM	
	TO:		
	CONSIDERATION:	NOTES:	
169094/1	ACCEPTED	CAVEAT	REG'D: 1957/09/18
	FROM/BY:	MANITOBA POWER COMMISSION	
	TO:		
	CONSIDERATION:	NOTES:	
2796711/1	ACCEPTED	MORTGAGE	REG'D: 2002/12/02
	FROM/BY:	BARKMAN CONCRETE LTD.	
	TO:	STEINBACH CREDIT UNION LIMITED	
	CONSIDERATION:	\$5,000,000.00	NOTES:

### ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	BARKMAN CONCRETE LTD. BOX 1179 STEINBACH MB	ROA 2A0

### ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
2796710/1	TREQ	2002/12/02	\$0.00	\$0.00
	PRESENTED BY:	FILLMORE RILEY		
	FROM:	BARKMAN CONCRETE LTD.		
	TO:			

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 1915926/1

DATE: 2013/05/02  
TIME: 16:42

# MANITOBA

TITLE NO: 1915926/1

## STATUS OF TITLE

PAGE: 2

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	2002/12/02		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	2002/12/05	CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

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### FROM TITLE NUMBER(S):

1153545/1 ALL    1915924/1 ALL

### LAND INDEX:

LOT	BLOCK	SURVEY PLAN
-----	-------	-------------

1		41161
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NOTE:

ACCEPTED THIS 2ND DAY OF DECEMBER, 2002  
BY G.SCOTT FOR THE DISTRICT REGISTRAR OF  
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 1915926/1.

\*\*\*\*\* END OF STATUS OF TITLE 1915926/1 \*\*\*\*\*

DATE: 2013/05/02  
TIME: 16:43

# MANITOBA

TITLE NO: 1153542/1

## STATUS OF TITLE

PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	1990/03/23		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	1990/04/04		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

### LEGAL DESCRIPTION:

BARKMAN CONCRETE LTD.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON, IN THE FOLLOWING DESCRIBED LAND:

LOT 13 PLAN 5346 WLTO  
EXC SLY 300 FEET  
IN SE 1/4 34-6-6 EPM

### ACTIVE TITLE CHARGE(S):

1241307/1	ACCEPTED	MORTGAGE	REG'D: 1989/12/15
	DESCRIPTION:	DEBENTURE	
	FROM/BY:	BARKMAN CONCRETE LTD	
	TO:	STEINBACH CREDIT UNION LIMITED	
	CONSIDERATION:	\$5,000,000.00	NOTES:

CHARGES AFFECTING THIS INSTRUMENT:  
4196964/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

2974602/1	ACCEPTED	MORTGAGE	REG'D: 2004/04/27
	FROM/BY:	BARKMAN CONCRETE LTD.	
	TO:	LORNE PETER BARKMAN	
	CONSIDERATION:	\$10,000,000.00	NOTES:

CHARGES AFFECTING THIS INSTRUMENT:  
4196965/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

2974603/1	ACCEPTED	MORTGAGE	REG'D: 2004/04/27
	FROM/BY:	BARKMAN CONCRETE LTD.	
	TO:	ALAN PETER BARKMAN	
	CONSIDERATION:	\$10,000,000.00	NOTES:

CHARGES AFFECTING THIS INSTRUMENT:  
4196966/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

4196964/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	STEINBACH CREDIT UNION LIMITED	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 1153542/1

\*\*\*\*\* STATUS OF TITLE 1153542/1 CONTINUED ON NEXT PAGE \*\*\*\*\*

DATE: 2013/05/02  
TIME: 16:43

# MANITOBA

TITLE NO: 1153542/1

## STATUS OF TITLE

PAGE: 2

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	1990/03/23		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	1990/04/04		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

### ACTIVE TITLE CHARGE(S):

4196965/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	LORNE PETER BARKMAN	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:

4196966/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	ALAN PETER BARKMAN	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:

### ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	BARKMAN CONCRETE LTD. BOX 1179 STEINBACH, MB.	R5G 1A4

### ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
1275302/1	EREQ	1990/03/23	\$0.00	\$0.00
	PRESENTED BY:	FILLMORE & RILEY		
	FROM:	BARKMAN CONCRETE LTD.		
	TO:			

### FROM TITLE NUMBER(S):

C18767/1 ALL

### LAND INDEX:

LOT	BLOCK	SURVEY PLAN
13		5346
NOTE:	SE 1/4	34-6-6E EXC SLY 300 FT

ACCEPTED THIS 23RD DAY OF MARCH, 1990  
BY A.SLOBODIAN FOR THE DISTRICT REGISTRAR OF  
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 1153542/1.

\*\*\*\*\* END OF STATUS OF TITLE 1153542/1 \*\*\*\*\*

DATE: 2013/05/02  
TIME: 16:43

# MANITOBA

TITLE NO: 1153518/1

## STATUS OF TITLE

PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	1990/03/23		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	1990/04/04	CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

### LEGAL DESCRIPTION:

BARKMAN CONCRETE LTD.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON, IN THE FOLLOWING DESCRIBED LAND:

PARCEL 1: SLY 112.5 FEET OF NLY 358.5 FEET OF  
LOT 10 PLAN 5346 WLTO  
EXC ELY 140 FEET  
IN SE 1/4 34-6-6 EPM

PARCEL 2: SLY 12.5 FEET OF NLY 358.5 FEET OF ELY 140 FEET OF LOT 10,  
PLAN 5346 WLTO  
IN SE 1/4 34-6-6 EPM

### ACTIVE TITLE CHARGE(S):

170320/1	ACCEPTED	CAVEAT	REG'D: 1958/01/23
	FROM/BY:	MANITOBA TELEPHONE SYSTEM	
	TO:		
	CONSIDERATION:	NOTES:	

1241307/1	ACCEPTED	MORTGAGE	REG'D: 1989/12/15
	DESCRIPTION:	DEBENTURE	
	FROM/BY:	BARKMAN CONCRETE LTD	
	TO:	STEINBACH CREDIT UNION LIMITED	
	CONSIDERATION:	\$5,000,000.00	NOTES:

CHARGES AFFECTING THIS INSTRUMENT:  
4196964/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

2974602/1	ACCEPTED	MORTGAGE	REG'D: 2004/04/27
	FROM/BY:	BARKMAN CONCRETE LTD.	
	TO:	LORNE PETER BARKMAN	
	CONSIDERATION:	\$10,000,000.00	NOTES:

CHARGES AFFECTING THIS INSTRUMENT:  
4196965/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 1153518/1

\*\*\*\*\* STATUS OF TITLE 1153518/1 CONTINUED ON NEXT PAGE \*\*\*\*\*



DATE: 2013/05/02  
TIME: 16:43

# MANITOBA

TITLE NO: 1153518/1

## STATUS OF TITLE

PAGE: 2

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	1990/03/23		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	1990/04/04		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

### ACTIVE TITLE CHARGE(S):

2974603/1	ACCEPTED	MORTGAGE	REG'D: 2004/04/27
	FROM/BY:	BARKMAN CONCRETE LTD.	
	TO:	ALAN PETER BARKMAN	
	CONSIDERATION:	\$10,000,000.00	NOTES:
<b>CHARGES AFFECTING THIS INSTRUMENT:</b>			
	4196966/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND
4196964/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	STEINBACH CREDIT UNION LIMITED	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:
4196965/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	LORNE PETER BARKMAN	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:
4196966/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	ALAN PETER BARKMAN	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:

### ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	BARKMAN CONCRETE LTD. BOX 1179 STEINBACH, MB.	R5G 1A4

### ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
1275301/1	EREQ	1990/03/23	\$0.00	\$0.00
	PRESENTED BY:	FILLMORE & RILEY		
	FROM:	BARKMAN CONCRETE LTD.		
	TO:			

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 1153518/1

DATE: 2013/05/02  
TIME: 16:43

# MANITOBA

TITLE NO: 1153518/1

## STATUS OF TITLE

PAGE: 3

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	1990/03/23		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	1990/04/04		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

---

### FROM TITLE NUMBER(S):

E29001/1      ALL

### LAND INDEX:

LOT      BLOCK      SURVEY PLAN

10                      5346

NOTE:      SE 1/4 34-6-6E      PART OF NLY 358.5 FEET

ACCEPTED THIS 23RD DAY OF MARCH, 1990  
BY A.SLOBODIAN FOR THE DISTRICT REGISTRAR OF  
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 1153518/1.

\*\*\*\*\* END OF STATUS OF TITLE      1153518/1      \*\*\*\*\*

DATE: 2013/05/02  
TIME: 16:43

# MANITOBA

TITLE NO: 1153516/1

## STATUS OF TITLE

PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	1990/03/23		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	1990/04/04		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

### LEGAL DESCRIPTION:

BARKMAN CONCRETE LTD.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON, IN THE FOLLOWING DESCRIBED LAND:

ALL THAT PORTION OF SE 1/4 34-6-6 EPM TAKEN FOR ARNOLD STREET PLAN 5346 WLTO (NOW CLOSED) AND SHOWN AS PARCEL A, PLAN 11217 WLTO EXC ALL MINES AND MINERALS

### ACTIVE TITLE CHARGE(S):

1241307/1	ACCEPTED	MORTGAGE	REG'D: 1989/12/15
DESCRIPTION:		DEBENTURE	
FROM/BY:		BARKMAN CONCRETE LTD	
TO:		STEINBACH CREDIT UNION LIMITED	
CONSIDERATION:		\$5,000,000.00	NOTES:

#### CHARGES AFFECTING THIS INSTRUMENT:

4196964/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

2974602/1	ACCEPTED	MORTGAGE	REG'D: 2004/04/27
FROM/BY:		BARKMAN CONCRETE LTD.	
TO:		LORNE PETER BARKMAN	
CONSIDERATION:		\$10,000,000.00	NOTES:

#### CHARGES AFFECTING THIS INSTRUMENT:

4196965/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

2974603/1	ACCEPTED	MORTGAGE	REG'D: 2004/04/27
FROM/BY:		BARKMAN CONCRETE LTD.	
TO:		ALAN PETER BARKMAN	
CONSIDERATION:		\$10,000,000.00	NOTES:

#### CHARGES AFFECTING THIS INSTRUMENT:

4196966/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

4196964/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
FROM/BY:		STEINBACH CREDIT UNION LIMITED	
TO:		BARKMAN CONCRETE LTD.	
CONSIDERATION:			NOTES:

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 1153516/1

\*\*\*\*\* STATUS OF TITLE 1153516/1 CONTINUED ON NEXT PAGE \*\*\*\*\*

DATE: 2013/05/02  
TIME: 16:43

# MANITOBA

TITLE NO: 1153516/1

## STATUS OF TITLE

PAGE: 2

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	1990/03/23		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	1990/04/04		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

### ACTIVE TITLE CHARGE(S):

4196965/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	LORNE PETER BARKMAN	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:
4196966/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	ALAN PETER BARKMAN	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:
4265371/1	ACCEPTED	CAVEAT	REG'D: 2012/08/30
	DESCRIPTION:	EASEMENT	
	FROM/BY:	MTS INC. AND SHAW CABLESYSTEMS LIMITED	
	TO:		
	CONSIDERATION:		NOTES: SLY 3.3 METRES PERP PCL A

### ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	BARKMAN CONCRETE LTD. BOX 1179 STEINBACH, MB.	R5G 1A4

### ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
1275303/1	EREQ	1990/03/23	\$0.00	\$0.00
	PRESENTED BY:	FILLMORE & RILEY		
	FROM:	BARKMAN CONCRETE LTD.		
	TO:			

### FROM TITLE NUMBER(S):

E8399/1 ALL

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 1153516/1

\*\*\*\*\* STATUS OF TITLE 1153516/1 CONTINUED ON NEXT PAGE \*\*\*\*\*

DATE: 2013/05/02  
TIME: 16:43

# MANITOBA

TITLE NO: 1153516/1

## STATUS OF TITLE

PAGE: 3

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	1990/03/23		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	1990/04/04		
		CLIENT FILE...	NA
		PRODUCED BY...	L. TEASDALE

---

### LAND INDEX:

LOT	QUARTER SECTION	SECTION	TOWNSHIP	RANGE
-----	-----------------	---------	----------	-------

	SE	34	6	6E
NOTE:	PCL A, SHOWN GREEN ON PLAN 11217 EXC RES			

ACCEPTED THIS 23RD DAY OF MARCH, 1990  
BY A.SLOBODIAN FOR THE DISTRICT REGISTRAR OF  
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 1153516/1.

\*\*\*\*\* END OF STATUS OF TITLE 1153516/1 \*\*\*\*\*

DATE: 2013/05/02  
TIME: 16:43

**MANITOBA**  
**STATUS OF TITLE**

TITLE NO: 2585674/1

PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	2012/03/29		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	2012/04/16		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

**LEGAL DESCRIPTION:**

BARKMAN CONCRETE LTD.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON, IN THE FOLLOWING DESCRIBED LAND:

PARCEL "A" PLAN 41557 WLTO  
IN SE 1/4 OF 34-6-6 EPM.

**ACTIVE TITLE CHARGE(S):**

1241307/1 ACCEPTED MORTGAGE REG'D: 1989/12/15  
DESCRIPTION: DEBENTURE  
FROM/BY: BARKMAN CONCRETE LTD  
TO: STEINBACH CREDIT UNION LIMITED  
CONSIDERATION: \$5,000,000.00 NOTES:

CHARGES AFFECTING THIS INSTRUMENT:  
4196964/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

2974602/1 ACCEPTED MORTGAGE REG'D: 2004/04/27  
FROM/BY: BARKMAN CONCRETE LTD.  
TO: LORNE PETER BARKMAN  
CONSIDERATION: \$10,000,000.00 NOTES:

CHARGES AFFECTING THIS INSTRUMENT:  
4196965/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

2974603/1 ACCEPTED MORTGAGE REG'D: 2004/04/27  
FROM/BY: BARKMAN CONCRETE LTD.  
TO: ALAN PETER BARKMAN  
CONSIDERATION: \$10,000,000.00 NOTES:

CHARGES AFFECTING THIS INSTRUMENT:  
4196966/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

4196964/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND REG'D: 2012/03/29  
FROM/BY: STEINBACH CREDIT UNION LIMITED  
TO: BARKMAN CONCRETE LTD.  
CONSIDERATION: NOTES:

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 2585674/1

\*\*\*\*\* STATUS OF TITLE 2585674/1 CONTINUED ON NEXT PAGE \*\*\*\*\*

DATE: 2013/05/02  
TIME: 16:43

# MANITOBA

TITLE NO: 2585674/1

## STATUS OF TITLE

PAGE: 2

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	2012/03/29		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	2012/04/16		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

### ACTIVE TITLE CHARGE(S):

4196965/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	LORNE PETER BARKMAN	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:
4196966/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	ALAN PETER BARKMAN	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:

### ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	BARKMAN CONCRETE LTD. 152 BRANDT ST. STEINBACH, MB.	R5G 0R2

### ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
4196961/1	T	2012/03/29	\$1.00	\$50,000.00
	PRESENTED BY:	LOEWEN HENDERSON BANMAN LLP		
	FROM:	CITY OF STEINBACH		
	TO:	BARKMAN CONCRETE LTD.		

### FROM TITLE NUMBER(S):

1942823/1 ALL

### LAND INDEX:

LOT	BLOCK	SURVEY PLAN
A		41557

NOTE: PARCEL

ACCEPTED THIS 29TH DAY OF MARCH, 2012  
BY G.BILODEAU FOR THE DISTRICT REGISTRAR OF  
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 2585674/1.

\*\*\*\*\* END OF STATUS OF TITLE 2585674/1 \*\*\*\*\*

DATE: 2013/05/02  
TIME: 16:43

**MANITOBA**  
**STATUS OF TITLE**

TITLE NO: 2585679/1  
PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	2012/03/29		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	2012/04/16		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

**LEGAL DESCRIPTION:**

BARKMAN CONCRETE LTD.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON, IN THE FOLLOWING DESCRIBED LAND:

LOT 3 PLAN 52551 WLTO  
IN SE 1/4 OF 34-6-6 EPM.

**ACTIVE TITLE CHARGE(S):**

1241307/1	ACCEPTED	MORTGAGE	REG'D: 1989/12/15
DESCRIPTION:		DEBENTURE	
FROM/BY:		BARKMAN CONCRETE LTD	
TO:		STEINBACH CREDIT UNION LIMITED	
CONSIDERATION:		\$5,000,000.00	NOTES:

CHARGES AFFECTING THIS INSTRUMENT:  
4196964/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

2974602/1	ACCEPTED	MORTGAGE	REG'D: 2004/04/27
FROM/BY:		BARKMAN CONCRETE LTD.	
TO:		LORNE PETER BARKMAN	
CONSIDERATION:		\$10,000,000.00	NOTES:

CHARGES AFFECTING THIS INSTRUMENT:  
4196965/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

2974603/1	ACCEPTED	MORTGAGE	REG'D: 2004/04/27
FROM/BY:		BARKMAN CONCRETE LTD.	
TO:		ALAN PETER BARKMAN	
CONSIDERATION:		\$10,000,000.00	NOTES:

CHARGES AFFECTING THIS INSTRUMENT:  
4196966/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

4196964/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
FROM/BY:		STEINBACH CREDIT UNION LIMITED	
TO:		BARKMAN CONCRETE LTD.	
CONSIDERATION:			NOTES:

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 2585679/1



DATE: 2013/05/02  
TIME: 16:43

# MANITOBA

TITLE NO: 2585679/1

## STATUS OF TITLE

PAGE: 2

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	2012/03/29		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	2012/04/16		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

### ACTIVE TITLE CHARGE(S):

4196965/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	LORNE PETER BARKMAN	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:
4196966/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	ALAN PETER BARKMAN	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:
4308731/1	ACCEPTED	CAVEAT	REG'D: 2012/12/18
	DESCRIPTION:	STATUTORY EASEMENT	
	FROM/BY:	MANITOBA HYDRO, MTS INC. & SHAW CABLESYSTEMS LIMITED	
	TO:		
	CONSIDERATION:		NOTES: AFF WTN LTS ROW PL 53754

### ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	BARKMAN CONCRETE LTD. 152 BRANDT ST. STEINBACH, MB.	R5G 0R2

### ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
4196963/1	TREQ	2012/03/29	\$0.00	\$0.00
	PRESENTED BY:	LOEWEN HENDERSON BANMAN LLP		
	FROM:	BARKMAN CONCRETE LTD.		
	TO:			

### FROM TITLE NUMBER(S):

1153510/1 BAL

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 2585679/1

\*\*\*\*\* STATUS OF TITLE 2585679/1 CONTINUED ON NEXT PAGE \*\*\*\*\*

DATE: 2013/05/02  
TIME: 16:43

**MANITOBA**  
**STATUS OF TITLE**

TITLE NO: 2585679/1

PAGE: 3

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	2012/03/29		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	2012/04/16		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

**LAND INDEX:**

LOT	BLOCK	SURVEY PLAN
3		52551

**NOTE:**

ACCEPTED THIS 29TH DAY OF MARCH, 2012  
BY G.BILODEAU FOR THE DISTRICT REGISTRAR OF  
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 2585679/1.

\*\*\*\*\* END OF STATUS OF TITLE 2585679/1 \*\*\*\*\*

DATE: 2013/05/02  
TIME: 16:43

**MANITOBA**  
**STATUS OF TITLE**

TITLE NO: 2585675/1

PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	2012/03/29		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	2012/04/16		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

**LEGAL DESCRIPTION:**

BARKMAN CONCRETE LTD.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON, IN THE FOLLOWING DESCRIBED LAND:

**FIRSTLY:**

PARCEL "B" PLAN 45032 WLTO  
EXC ALL MINES AND MINERALS AND OTHER MATTERS AS SET FORTH IN  
THE CROWN LANDS ACT,  
IN SE 1/4 OF 34-6-6 EPM.

**SECONDLY:**

LOT 2 PLAN 52551 WLTO  
IN SAID SE 1/4.

**ACTIVE TITLE CHARGE(S):**

1241307/1	ACCEPTED	MORTGAGE	REG'D: 1989/12/15
DESCRIPTION:		DEBENTURE	
FROM/BY:		BARKMAN CONCRETE LTD	
TO:		STEINBACH CREDIT UNION LIMITED	
CONSIDERATION:		\$5,000,000.00	NOTES:

**CHARGES AFFECTING THIS INSTRUMENT:**

4196964/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

2974602/1	ACCEPTED	MORTGAGE	REG'D: 2004/04/27
FROM/BY:		BARKMAN CONCRETE LTD.	
TO:		LORNE PETER BARKMAN	
CONSIDERATION:		\$10,000,000.00	NOTES:

**CHARGES AFFECTING THIS INSTRUMENT:**

4196965/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

2974603/1	ACCEPTED	MORTGAGE	REG'D: 2004/04/27
FROM/BY:		BARKMAN CONCRETE LTD.	
TO:		ALAN PETER BARKMAN	
CONSIDERATION:		\$10,000,000.00	NOTES:

**CHARGES AFFECTING THIS INSTRUMENT:**

4196966/1 ACCEPTED AMENDING AGREEMENT INCLUDING LAND

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 2585675/1

\*\*\*\*\* STATUS OF TITLE 2585675/1 CONTINUED ON NEXT PAGE \*\*\*\*\*

DATE: 2013/05/02  
TIME: 16:43

# MANITOBA

TITLE NO: 2585675/1

## STATUS OF TITLE

PAGE: 2

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	2012/03/29		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	2012/04/16		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

### ACTIVE TITLE CHARGE(S):

4196964/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	STEINBACH CREDIT UNION LIMITED	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:
4196965/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	LORNE PETER BARKMAN	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:
4196966/1	ACCEPTED	AMENDING AGREEMENT INCLUDING LAND	REG'D: 2012/03/29
	FROM/BY:	ALAN PETER BARKMAN	
	TO:	BARKMAN CONCRETE LTD.	
	CONSIDERATION:		NOTES:
4308731/1	ACCEPTED	CAVEAT	REG'D: 2012/12/18
	DESCRIPTION:	STATUTORY EASEMENT	
	FROM/BY:	MANITOBA HYDRO, MTS INC. & SHAW CABLESYSTEMS LIMITED	
	TO:		
	CONSIDERATION:		NOTES: 2NDLY: WTN ROW PL 53754

### ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	BARKMAN CONCRETE LTD. 152 BRANDT ST. STEINBACH, MB.	R5G 0R2

### ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
4196961/1	T	2012/03/29	\$1.00	\$50,000.00
PRESENTED BY:	LOEWEN HENDERSON BANMAN LLP			
FROM:	CITY OF STEINBACH			
TO:	BARKMAN CONCRETE LTD.			

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 2585675/1

DATE: 2013/05/02  
TIME: 16:43

**MANITOBA**  
**STATUS OF TITLE**

TITLE NO: 2585675/1

PAGE: 3

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	BARKMAN CONCRETE
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	BRIAN PRIES
REGISTERING OFFICE...	WINNIPEG		152 BERANDT ST.
REGISTRATION DATE....	2012/03/29		STEINBACH, MB R5G 1N4
COMPLETION DATE.....	2012/04/16		
		CLIENT FILE...	NA
		PRODUCED BY...	L.TEASDALE

FROM TITLE NUMBER(S):

2233058/1 PART

1153510/1 PART

LAND INDEX:

LOT	BLOCK	SURVEY PLAN
-----	-------	-------------

B		45032
NOTE:	PARCEL, EXC RES	
2		52551
NOTE:		

ACCEPTED THIS 29TH DAY OF MARCH, 2012  
BY G.BILODEAU FOR THE DISTRICT REGISTRAR OF  
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/05/02 OF TITLE NUMBER 2585675/1.

\*\*\*\*\* END OF STATUS OF TITLE 2585675/1 \*\*\*\*\*

LOCATION: SE34-6-6E

Well\_PID: 100990  
Owner: PAUL NEUSTAEDTER  
Driller: Echo Drilling Ltd.  
Well Name:  
Well Use: PRODUCTION  
Water Use: Domestic  
UTMX: 666666.333  
UTMY: 5487950.46  
Accuracy XY: 4 FAIR [350M-1KM] [WITHIN SECTION]  
UTMZ:  
Accuracy Z:  
Date Completed: 1996 Jun 19

WELL LOG

From (ft.)	To (ft.)	Log
0	10.0	BROWN TILL
10.0	45.0	GREY TILL
45.0	55.0	SAND
55.0	63.0	GREY TILL
63.0	104.0	BLUE CLAY
104.0	108.0	BROWN TILL
108.0	125.0	WHITE TILL
125.0	199.0	LIMESTONE

WELL CONSTRUCTION

From (ft.)	To (ft.)	Casing Type	Inside Dia.(in)	Outside Dia.(in)	Slot Size(in)	Type	Material
0	127.0	CASING	5.00			INSERT	PVC
127.0	199.0	OPEN HOLE	4.00				
0	127.0	CASING GROUT					

BENTONITE

Top of Casing: 2.0 ft. above ground

PUMPING TEST

Date: 1996 Jun 19  
Pumping Rate: 30.0 Imp. gallons/minute  
Water level before pumping: 6.0 ft. below ground  
Pumping level at end of test: 15.0 ft. below ground  
Test duration: 1 hours, minutes  
Water temperature: ?? degrees F

---

LOCATION: SE34-6-6E

Well\_PID: 139028  
 Owner: BARKMAN CONCRETE  
 Driller: Echo Drilling Ltd.  
 Well Name:  
 Well Use: PRODUCTION  
 Water Use: Domestic  
 UTMX: 666988  
 UTM Y: 5487690  
 Accuracy XY: 1 EXACT [<5M] [GPS]  
 UTM Z:  
 Accuracy Z:  
 Date Completed: 2006 Jun 28

WELL LOG

From (ft.)	To (ft.)	Log
0	6.0	TILL
6.0	52.0	BROWN TILL
52.0	60.0	SAND AND GRAVEL
60.0	78.0	GREY TILL
78.0	101.0	GREY STICKY CLAY.
101.0	114.0	BROWN TILL
114.0	240.0	LIMESTONE

WELL CONSTRUCTION

From (ft.)	To (ft.)	Casing Type	Inside Dia.(in)	Outside Dia.(in)	Slot Size(in)	Type	Material
0	117.0	CASING	5.00	5.50		INSERT	PVC
117.0	240.0	OPEN HOLE	4.00				
10.0	60.0	CASING GROUT					CEMENT

Top of Casing: 2.0 ft. above ground

PUMPING TEST

Date: 2006 Jun 28  
 Pumping Rate: 60.0 Imp. gallons/minute  
 Water level before pumping: 13.0 ft. below ground  
 Pumping level at end of test: 21.6 ft. below ground  
 Test duration: ??? hours, ?? minutes  
 Water temperature: ?? degrees F

REMARKS

C/O DEERFIELD MECHANICAL, WELL MUST BE VENTED, RECOMMEND THIS WELL AS PUMP WELL.

LOCATION: SE34-6-6E

Well\_PID: 139027  
 Owner: BARKMAN CONCRETE  
 Driller: Echo Drilling Ltd.  
 Well Name:  
 Well Use: PRODUCTION  
 Water Use: Domestic  
 UTMX: 666988  
 UTMY: 5487690  
 Accuracy XY: 1 EXACT [<5M] [GPS]  
 UTMZ:  
 Accuracy Z:  
 Date Completed: 2006 Jun 27

WELL LOG

From (ft.)	To (ft.)	Log
0	25.0	BROWN TILL
25.0	78.0	GREY TILL
78.0	102.0	GREY STICKY CLAY
102.0	114.0	BROWN TILL
114.0	220.0	LIMESTONE

WELL CONSTRUCTION

From (ft.)	To (ft.)	Casing Type	Inside Dia.(in)	Outside Dia.(in)	Slot Size(in)	Type	Material
0	118.0	CASING	5.00	5.50		INSERT	PVC
118.0	220.0	OPEN HOLE	4.00				
10.0	60.0	CASING GROUT					CEMENT

Top of Casing: 2.0 ft. above ground

PUMPING TEST

Date: 2006 Jun 27  
 Pumping Rate: 71.0 Imp. gallons/minute  
 Water level before pumping: 13.0 ft. below ground  
 Pumping level at end of test: 17.6 ft. below ground  
 Test duration: ??? hours, ?? minutes  
 Water temperature: ?? degrees F

REMARKS

C/O DEERFIELD MECHANICAL, WELL MUST BE VENTED, RECOMMEND THIS WELL AS RETURN.

---

LOCATION: SW35-6-6E



Well\_PID: 14445  
Owner: P H FROESE  
Driller: MANKEY, EMIL  
Well Name:  
Well Use: PRODUCTION  
Water Use: Domestic  
UTMX: 667502.733  
UTMY: 5487977.25  
Accuracy XY: UNKNOWN  
UTMZ:  
Accuracy Z:  
Date Completed: 1970 Aug 12

WELL LOG

From (ft.)	To (ft.)	Log
0	6.0	DARK CLAY
6.0	26.0	YELLOW CLAY
26.0	97.9	BLUE CLAY WITH PEBBLES
97.9	101.9	BROWN CLAY
101.9	111.9	GREYISH, SANDY CLAY
111.9	114.9	LIMESTONE

WELL CONSTRUCTION

From (ft.)	To (ft.)	Casing Type	Inside Dia.(in)	Outside Dia.(in)	Slot Size(in)	Type	Material
0	111.9	casing	4.00				
111.9	114.9	open hole					

Top of Casing: ft. below ground

PUMPING TEST

Date: 1970 Aug 12  
Pumping Rate: 12.0 Imp. gallons/minute  
Water level before pumping: 4.0 ft. below ground  
Pumping level at end of test: 6.0 ft. below ground  
Test duration: 12 hours, minutes  
Water temperature: ?? degrees F

---

LOCATION: SW35-6-6E

Well\_PID: 59945  
Owner: SOUTHWOOD SCHOOL  
Driller: Echo Drilling Ltd.  
Well Name:  
Well Use: RECHARGE  
Water Use: Air Conditioning  
UTMX: 667502.733

UTMY: 5487977.25  
Accuracy XY: UNKNOWN  
UTMZ:  
Accuracy Z:  
Date Completed: 1987 Aug 06

WELL LOG

From (ft.)	To (ft.)	Log
0	30.0	TILL
30.0	35.0	SAND AND GRAVEL
35.0	64.0	GREY TILL
64.0	101.9	HARD BLUE CLAY
101.9	116.9	BROWN TILL
116.9	239.8	LIMESTONE
239.8	244.8	SHALE

WELL CONSTRUCTION

From (ft.)	To (ft.)	Casing Type	Inside Dia.(in)	Outside Dia.(in)	Slot Size(in)	Type	Material
0	118.9	casing	6.50	7.00		INSERT	BLACK
118.9	244.8	open hole	6.00				

Top of Casing: 1.0 ft. above ground

PUMPING TEST

Date: 1987 Aug 01  
Pumping Rate: 199.9 Imp. gallons/minute  
Water level before pumping: 12.0 ft. below ground  
Pumping level at end of test: 20.0 ft. below ground  
Test duration: 24 hours, minutes  
Water temperature: ?? degrees F

REMARKS

BARKMAN + 3RD. ST., SOUTHWOOD SCHOOL

---

LOCATION: SW35-6-6E

Well\_PID: 10402  
Owner: J PETERS  
Driller: Friesen Drillers Ltd.  
Well Name:  
Well Use: PRODUCTION  
Water Use: Domestic  
UTMX: 667502.733  
UTMY: 5487977.25

Accuracy XY: UNKNOWN  
UTMZ:  
Accuracy Z:  
Date Completed: 1967 Aug 22

WELL LOG

From (ft.)	To (ft.)	Log
0	2.0	OVERBURDEN GRAVEL
2.0	7.0	BROWN CLAY
7.0	79.9	HARDPAN
79.9	91.9	BLUE CLAY
91.9	105.9	HARDPAN
105.9	110.9	BROWN CLAY
110.9	113.9	HARDPAN
113.9	125.9	LIMESTONE, WATER AT 124 FEET

WELL CONSTRUCTION

From (ft.)	To (ft.)	Casing Type	Inside Dia.(in)	Outside Dia.(in)	Slot Size(in)	Type	Material
0	113.9	casing	4.00				
113.9	125.9	open hole					

Top of Casing: ft. below ground

No pump test data for this well.

REMARKS

MCKENZIE ROAD AND 4TH AVENUE, STEINBACH, GROUND LEVEL ELEV EST 860 FT

---

LOCATION: SW35-6-6E

Well\_PID: 161663  
Owner: KEVIN TOEWS  
Driller: Friesen Drillers Ltd.  
Well Name:  
Well Use: PRODUCTION  
Water Use: Domestic  
UTMX: 667445  
UTMY: 5488146  
Accuracy XY: 1 EXACT [<5M] [GPS]  
UTMZ: 263  
Accuracy Z: 4 FAIR - Shuttle at Centroid  
Date Completed: 2009 Jan 01

No well log data for this well.

WELL CONSTRUCTION

From (ft.)	To (ft.)	Casing Type	Inside Dia.(in)	Outside Dia.(in)	Slot Size(in)	Type	Material
							PVC

Top of Casing: 0.0

No pump test data for this well.

REMARKS

INVENTORIED BY SEINE RAT RIVER CD 2009. WELL LOCATED AT THE BACKYARD.

---

LOCATION: SW35-6-6E

Well\_PID: 161090  
 Owner: ROBERT HAMM  
 Driller: UNKNOWN  
 Well Name:  
 Well Use: OTHER  
 Water Use:  
 UTMX: 667450  
 UTMZ: 5488139  
 Accuracy XY: 1 EXACT [<5M] [GPS]  
 UTMZ: 263  
 Accuracy Z: 4 FAIR - Shuttle at Centroid  
 Date Completed: 2009 Jan 01

No well log data for this well.

No construction data for this well.

Top of Casing: 0.0

No pump test data for this well.

REMARKS

INVENTORIED BY SEINE RAT RIVER CD 2009. DRILLER AND DRILL DATE UNKNOWN.

---

LOCATION: NE27-6-6E

Well\_PID: 110127  
 Owner: BACHMAN PROPERTY MANAGEMENT INC  
 Driller: Echo Drilling Ltd.

Well Name:  
Well Use: PRODUCTION  
Water Use: Domestic  
UTMX: 666693.775  
UTMY: 5487117.79  
Accuracy XY:  
UTMZ:  
Accuracy Z:  
Date Completed: 1998 Apr 16

WELL LOG

From (ft.)	To (ft.)	Log
0	3.0	FILL
3.0	15.0	BROWN TILL
15.0	103.0	GREY TILL
103.0	109.0	DARK BROWN TILL
109.0	118.0	WHITE TILL
118.0	198.0	LIMESTONE

WELL CONSTRUCTION

From (ft.)	To (ft.)	Casing Type	Inside Dia.(in)	Outside Dia.(in)	Slot Size(in)	Type	Material
0	121.0	CASING	5.00			INSERT	PVC
121.0	198.0	OPEN HOLE	4.00				
10.0	198.0	CASING GROUT BENTONITE					

Top of Casing: 2.0 ft. above ground

PUMPING TEST

Date: 1998 Apr 16  
Pumping Rate: 30.0 Imp. gallons/minute  
Water level before pumping: 5.0 ft. below ground  
Pumping level at end of test: 40.0 ft. below ground  
Test duration: ??? hours, ?? minutes  
Water temperature: ?? degrees F

REMARKS

6 WILLIAM, STEINBACH

---

LOCATION: NE27-6-6E

Well\_PID: 39921  
Owner: P J KIRK  
Driller: NOWICKI, EDWARD  
Well Name:

Well Use: PRODUCTION  
Water Use: Domestic  
UTMX: 666693.775  
UTMY: 5487117.79  
Accuracy XY: UNKNOWN  
UTMZ:  
Accuracy Z:  
Date Completed: 1980 Jul 01

WELL LOG

From (ft.)	To (ft.)	Log
0	18.0	SANDY GREY CLAY WITH LAYER OF SAND
18.0	32.0	SANDY GREY CLAY, HARD
32.0	44.0	SAND AND GRAVEL

WELL CONSTRUCTION

From (ft.)	To (ft.)	Casing Type	Inside Dia.(in)	Outside Dia.(in)	Slot Size(in)	Type	Material
0	39.0	casing	4.00				PVC
39.0	44.0	perforations	3.00		0.015		PVC
0	0	gravel pack					SILICA

S.

Top of Casing: ft. below ground

PUMPING TEST

Date: 1980 Jul 01  
Pumping Rate: 10.0 Imp. gallons/minute  
Water level before pumping: 14.0 ft. below ground  
Pumping level at end of test: 30.0 ft. below ground  
Test duration: hours, minutes  
Water temperature: ?? degrees F

---

LOCATION: NE27-6-6E

Well\_PID: 7779  
Owner: P ENNS  
Driller: MANKEY, EMIL  
Well Name:  
Well Use: PRODUCTION  
Water Use: Domestic  
UTMX: 666693.775  
UTMY: 5487117.79  
Accuracy XY: UNKNOWN  
UTMZ:  
Accuracy Z:  
Date Completed: 1965 Jul 24

WELL LOG

From (ft.)	To (ft.)	Log
0	20.0	YELLOW HARD CLAY
20.0	104.9	BLUE CLAY
104.9	113.9	GRAVEL AND STONES, WATER AT 114 FEET

WELL CONSTRUCTION

From (ft.)	To (ft.)	Casing Type	Inside Dia.(in)	Outside Dia.(in)	Slot Size(in)	Type	Material
0	113.9	casing	4.00				

Top of Casing: ft. below ground

PUMPING TEST

Date: 1965 Jul 24  
Pumping Rate: 8.0 Imp. gallons/minute  
Water level before pumping: ft. below ground  
Pumping level at end of test: 5.0 ft. below ground  
Test duration: hours, minutes  
Water temperature: ?? degrees F

REMARKS

49 FT S + 875 FT W OF SEC LINE, GROUND LEVEL ELEV EST 860 FT

---

LOCATION: NE27-6-6E

Well\_PID: 73904  
Owner: WRB  
Driller: Friesen Drillers Ltd.  
Well Name: G050E030 STB#3  
Well Use: OBSERVATION  
Water Use:  
UTMX: 667089  
UTMY: 5487114  
Accuracy XY: 1 EXACT [<5M] [GPS]  
UTMZ: 263.79  
Accuracy Z: 1 EXACT <10CM  
Date Completed: 1992 Oct 09

WELL LOG

From (ft.)	To (ft.)	Log
0	6.0	FILL
6.0	11.0	CLAY; BROWN

11.0	19.0	TILL; BROWN
19.0	77.9	TILL; GREY
77.9	95.9	CLAY; DARK GREY
95.9	113.9	TILL; DARK GREY, SILTY, CLAYEY, PEBBLES, GRAVELLY AT 110 FEET
113.9	115.9	BEDROCK RUBBLE
115.9	159.9	SOFT LIMESTONE; LIGHT BROWN TO BEIGE, THIN BEIGE SHALE LAYERS

WELL CONSTRUCTION

From (ft.)	To (ft.)	Casing Type	Inside Dia.(in)	Outside Dia.(in)	Slot Size(in)	Type	Material
	0	117.9 casing	5.00			INSERT	BLACK
IRON							
	117.9	159.9 open hole	4.70				
	0	55.0 casing grout	5.00	7.80			CEMENT

Top of Casing: 2.3 ft. above ground

PUMPING TEST

Date: 1992 Oct 09  
Pumping Rate: 60.0 Imp. gallons/minute  
Water level before pumping: 12.0 ft. below ground  
Pumping level at end of test: 19.0 ft. below ground  
Test duration: hours, 15 minutes  
Water temperature: ?? degrees F

REMARKS

0.4 KM S OF MCKENZIE AVE, 15 M W OF PTH #12 SOUTH BOUND LANE,  
SPECIFIC CAPACITY IS HIGHER THAN TESTED, NOT DEVELOPED.

---

LOCATION: NW26-6-6E

Well\_PID: 32829  
Owner: E FRIESEN  
Driller: Friesen Drillers Ltd.  
Well Name:  
Well Use: PRODUCTION  
Water Use: Domestic  
UTMX: 667529.285  
UTMY: 5487143.62  
Accuracy XY: UNKNOWN  
UTMZ:  
Accuracy Z:  
Date Completed: 1978 Jun 15



WELL LOG

From (ft.)	To (ft.)	Log
0	74.0	BLUE TILL
74.0	91.9	HARD BLUE CLAY
91.9	113.9	WHITE TILL
113.9	179.9	LIMESTONE

WELL CONSTRUCTION

From (ft.)	To (ft.)	Casing Type	Inside Dia.(in)	Outside Dia.(in)	Slot Size(in)	Type	Material
0	115.9	casing	4.25			INSERT	BLACK
IRON 115.9	179.9	open hole	4.00				

Top of Casing: ft. below ground

PUMPING TEST

Date:  
Pumping Rate: 30.0 Imp. gallons/minute  
Water level before pumping: 14.0 ft. below ground  
Pumping level at end of test: 20.0 ft. below ground  
Test duration: hours, minutes  
Water temperature: ?? degrees F

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LOCATION: NW26-6-6E

Well\_PID: 164107  
Owner: KATHY DOERKSEN  
Driller: UNKNOWN  
Well Name:  
Well Use: PRODUCTION  
Water Use:  
UTMX: 667771  
UTMY: 5487535  
Accuracy XY: 1 EXACT [<5M] [GPS]  
UTMZ: 263  
Accuracy Z: 4 FAIR - Shuttle at Centroid  
Date Completed: 1950 Jan 01

No well log data for this well.

No construction data for this well.

Top of Casing: 0.0

No pump test data for this well.

REMARKS

INVENTORIED BY SEINE RAT RIVER CD 2010. 292 MACKENZIE RD, STEINBACH.  
NO LOG. DRILLED IN 1950S. LOCATION OF WELL IS UNKNOWN. ORIGINAL OWNER  
- SCHULTZ.

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LOCATION: NW26-6-6E

Well\_PID: 13114  
Owner: P J FUNK  
Driller: MANKEY, EMIL  
Well Name:  
Well Use: PRODUCTION  
Water Use: Domestic  
UTMX: 667529.285  
UTMY: 5487143.62  
Accuracy XY: UNKNOWN  
UTMZ:  
Accuracy Z:  
Date Completed: 1969 Oct 27

WELL LOG

From (ft.)	To (ft.)	Log
0	12.0	YELLOW CLAY
12.0	25.0	GREY SAND
25.0	40.0	GREY SAND AND PEBBLES
40.0	89.9	BLUE CLAY
89.9	98.9	BROWN CLAY
98.9	103.9	SOME SAND
103.9	116.9	LIMESTONE

WELL CONSTRUCTION

From (ft.)	To (ft.)	Casing Type	Inside Dia.(in)	Outside Dia.(in)	Slot Size(in)	Type	Material
0	113.9	casing	4.00				
113.9	116.9	open hole					

Top of Casing: ft. below ground

PUMPING TEST

Date: 1969 Oct 27  
Pumping Rate: 8.0 Imp. gallons/minute  
Water level before pumping: 6.0 ft. below ground  
Pumping level at end of test: 10.0 ft. below ground  
Test duration: 24 hours, minutes  
Water temperature: ?? degrees F

REMARKS

GROUND LEVEL ELEV EST 870 FT

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## Cusitar, Kristiina

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From: Sitchon, Myra (CHT) <Myra.Sitchon@gov.mb.ca>  
Sent: Friday, August 23, 2013 8:48 AM  
To: Cusitar, Kristiina  
Subject: No concerns - Barkman Concrete Plant

Hi Kristina,

In response to your memo regarding the above-noted proposed project, I have examined Branch records for areas of potential concern. The potential to impact significant heritage resources is low, and, therefore, the Historic Resources Branch has no concerns with the project.

If at any time however, significant heritage resources are recorded in association with these lands during development, the Historic Resources Branch may require that an acceptable heritage resource management strategy be implemented by the developer to mitigate the effects of development on the heritage resources.

If you have any questions or comments, please contact me at 945-6539.

Thanks and have a good weekend.

Myra

---

### Myra L. Sitchon,

#### *Impact Evaluation Archaeologist,*

Archaeological Assessment Services Unit,  
Historic Resources Branch  
Main Floor- 213 Notre Dame Avenue, Winnipeg, MB R3B 1N3  
[myra.sitchon@gov.mb.ca](mailto:myra.sitchon@gov.mb.ca)

**Phone:** (204) 945-6539

**Toll Free:** 1-800-282-8069+extension(6539)

**Fax:** (204) 948-2384

**Website:** <http://www.manitoba.ca/heritage>



---

From: Smith, Brian (CHT)  
Sent: August-16-13 9:22 AM  
To: 'Kristiina.Cusitar@aecom.com'  
Cc: Sitchon, Myra (CHT); McClean, Heather  
Subject: Barkman Concrete Plant

Hi Kristina, Heather McClean passed on your enquiry to me. This file has been entered into our system for review. You will be provided a response from Myra Sitchon once the screening has been completed.

Brian J. Smith

Manager, Archaeological Assessment Services Unit

Historic Resources Branch

213 Notre Dame Avenue, Winnipeg, MB R3B 1N3

Phone (204) 945-1830; Fax (204) 948-2384

E-mail: [Brian.Smith@gov.mb.ca](mailto:Brian.Smith@gov.mb.ca)

Calculations based on 2006 IPCC Guidelines for National Greenhouse Gas Inventories

<b>Current Condition - Barkman Concrete</b>			
<b>On-Site Transportation</b>			
Gasoline used in on-site service vehicles	5,483	L/year	Provided by Barkman
<b>Emissions GHG = Fuel Consumption x Emission Factor</b>			
<b>CO<sub>2</sub> Emission Factor</b>	2,289	g CO <sub>2</sub> /L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Light-duty Gasoline Trucks Tier 1 emission factor
<b>CH<sub>4</sub> Emission Factor</b>	0.240	g CH <sub>4</sub> /L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Light-duty Gasoline Trucks Tier 1 emission factor
<b>N<sub>2</sub>O Emission Factor</b>	0.580	g N <sub>2</sub> O/L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Light-duty Gasoline Trucks Tier 1 emission factor
CO <sub>2</sub> emissions	12550587.00	g CO <sub>2</sub> /year	
<b>CO<sub>2</sub> emissions</b>	<b>34.39</b>	<b>kg CO<sub>2</sub>/day</b>	
CH <sub>4</sub> emissions	1315.92	g CH <sub>4</sub> /year	
<b>CH<sub>4</sub> emissions</b>	<b>0.0036</b>	<b>kg CH<sub>4</sub>/day</b>	
N <sub>2</sub> O emissions	3180.14	g N <sub>2</sub> O/year	
<b>N<sub>2</sub>O emissions</b>	<b>0.0087</b>	<b>kg N<sub>2</sub>O/day</b>	
<b>On-Site Transportation</b>			
Diesel used in Fork Lifts	72,470	L/year	Provided by Barkman
<b>Emissions GHG = Fuel Consumption x Emission Factor</b>			
<b>CO<sub>2</sub> Emission Factor</b>	2,663	g CO <sub>2</sub> /L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Heavy-duty Diesel Vehicles moderate control emission factor
<b>CH<sub>4</sub> Emission Factor</b>	0.140	g CH <sub>4</sub> /L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Heavy-duty Diesel Vehicles moderate control emission factor
<b>N<sub>2</sub>O Emission Factor</b>	0.082	g N <sub>2</sub> O/L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Heavy-duty Diesel Vehicles moderate control emission factor
CO <sub>2</sub> emissions	192987610.00	g CO <sub>2</sub> /year	
<b>CO<sub>2</sub> emissions</b>	<b>528.73</b>	<b>kg CO<sub>2</sub>/day</b>	
CH <sub>4</sub> emissions	10145.80	g CH <sub>4</sub> /year	
<b>CH<sub>4</sub> emissions</b>	<b>0.0278</b>	<b>kg CH<sub>4</sub>/day</b>	
N <sub>2</sub> O emissions	5942.54	g N <sub>2</sub> O/year	
<b>N<sub>2</sub>O emissions</b>	<b>0.0163</b>	<b>kg N<sub>2</sub>O/day</b>	
<b>On-Site Transportation</b>			
Propane used in Skid Steer (and shrink wrapping)	8,445	L/year	Provided by Barkman
<b>Emissions GHG = Fuel Consumption x Emission Factor</b>			
<b>CO<sub>2</sub> Emission Factor</b>	1,510	g CO <sub>2</sub> /L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Propane Vehicles
<b>CH<sub>4</sub> Emission Factor</b>	0.640	g CH <sub>4</sub> /L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Propane Vehicles
<b>N<sub>2</sub>O Emission Factor</b>	0.028	g N <sub>2</sub> O/L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Propane Vehicles
CO <sub>2</sub> emissions	12751950.00	g CO <sub>2</sub> /year	
<b>CO<sub>2</sub> emissions</b>	<b>34.94</b>	<b>kg CO<sub>2</sub>/day</b>	
CH <sub>4</sub> emissions	5404.80	g CH <sub>4</sub> /year	
<b>CH<sub>4</sub> emissions</b>	<b>0.0148</b>	<b>kg CH<sub>4</sub>/day</b>	
N <sub>2</sub> O emissions	236.46	g N <sub>2</sub> O/year	
<b>N<sub>2</sub>O emissions</b>	<b>0.0006</b>	<b>kg N<sub>2</sub>O/day</b>	
<b>Stationary Fuel Combustion</b>			
Natural Gas Usage	370,641	m <sup>3</sup> /year	Provided by Barkman (based on natural gas heating for existing plant from July 2012 to July 2013)
<b>Emissions GHG = Fuel Consumption x Emission Factor</b>			
<b>CO<sub>2</sub> Emission Factor</b>	1,877	g CO <sub>2</sub> /m <sup>3</sup>	Canada - National Inventory Report 1990-2011 Table A8-1 CO <sub>2</sub> Emission Factors for Natural Gas, Manitoba, Marketable
<b>CH<sub>4</sub> Emission Factor</b>	0.037	g CH <sub>4</sub> /m <sup>3</sup>	Canada - National Inventory Report 1990-2011 Table A8-2 CH <sub>4</sub> and N <sub>2</sub> O Emission Factors for Natural Gas, Industrial
<b>N<sub>2</sub>O Emission Factor</b>	0.033	g N <sub>2</sub> O/m <sup>3</sup>	Canada - National Inventory Report 1990-2011 Table A8-2 CH <sub>4</sub> and N <sub>2</sub> O Emission Factors for Natural Gas, Industrial
CO <sub>2</sub> emissions	695694001.65	g CO <sub>2</sub> /year	
<b>CO<sub>2</sub> emissions</b>	<b>1906.01</b>	<b>kg CO<sub>2</sub>/day</b>	
CH <sub>4</sub> emissions	13713.73	g CH <sub>4</sub> /year	
<b>CH<sub>4</sub> emissions</b>	<b>0.0376</b>	<b>kg CH<sub>4</sub>/day</b>	
N <sub>2</sub> O emissions	12231.17	g N <sub>2</sub> O/year	
<b>N<sub>2</sub>O emissions</b>	<b>0.0335</b>	<b>kg N<sub>2</sub>O/day</b>	
<b>TOTAL EMISSIONS AS CO<sub>2</sub> EQUIVALENT</b>			
Total CO <sub>2</sub>	2504.07	kg CO <sub>2</sub> /day	
Total CH <sub>4</sub>	0.084	kg CH <sub>4</sub> /day	
Total N <sub>2</sub> O	0.0592	kg N <sub>2</sub> O/day	
GWP CH <sub>4</sub>	21		IPCC values
GWP N <sub>2</sub> O	310		IPCC values
<b>Total CO<sub>2</sub> e</b>	<b>2,524</b>	<b>kg CO<sub>2</sub> e/day</b>	
	<b>921</b>	<b>tonnes CO<sub>2</sub> e/year</b>	

Calculations based on 2006 IPCC Guidelines for National Greenhouse Gas Inventories

**Proposed Condition - Barkman Concrete**

<b>On-Site Transportation</b>			
Gasoline used in on-site service vehicles	5,483	L/year	Provided by Barkman (no change predicted)
<b>Emissions GHG = Fuel Consumption x Emission Factor</b>			
CO <sub>2</sub> Emission Factor	2,289	g CO <sub>2</sub> /L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Light-duty Gasoline Trucks Tier 1 emission factor
CH <sub>4</sub> Emission Factor	0.240	g CH <sub>4</sub> /L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Light-duty Gasoline Trucks Tier 1 emission factor
N <sub>2</sub> O Emission Factor	0.580	g N <sub>2</sub> O/L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Light-duty Gasoline Trucks Tier 1 emission factor
CO <sub>2</sub> emissions	12550587.00	g CO <sub>2</sub> /year	
<b>CO<sub>2</sub> emissions</b>	<b>34.39</b>	<b>kg CO<sub>2</sub>/day</b>	
CH <sub>4</sub> emissions	1315.92	g CH <sub>4</sub> /year	
<b>CH<sub>4</sub> emissions</b>	<b>0.0036</b>	<b>kg CH<sub>4</sub>/day</b>	
N <sub>2</sub> O emissions	3180.14	g N <sub>2</sub> O/year	
<b>N<sub>2</sub>O emissions</b>	<b>0.0087</b>	<b>kg N<sub>2</sub>O/day</b>	
<b>On-Site Transportation</b>			
Diesel used in Fork Lifts	83,341	L/year	Provided by Barkman (15% increase predicted)
<b>Emissions GHG = Fuel Consumption x Emission Factor</b>			
CO <sub>2</sub> Emission Factor	2,663	g CO <sub>2</sub> /L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Heavy-duty Diesel Vehicles moderate control emission factor
CH <sub>4</sub> Emission Factor	0.140	g CH <sub>4</sub> /L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Heavy-duty Diesel Vehicles moderate control emission factor
N <sub>2</sub> O Emission Factor	0.082	g N <sub>2</sub> O/L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Heavy-duty Diesel Vehicles moderate control emission factor
CO <sub>2</sub> emissions	221935751.50	g CO <sub>2</sub> /year	
<b>CO<sub>2</sub> emissions</b>	<b>608.04</b>	<b>kg CO<sub>2</sub>/day</b>	
CH <sub>4</sub> emissions	11667.67	g CH <sub>4</sub> /year	
<b>CH<sub>4</sub> emissions</b>	<b>0.0320</b>	<b>kg CH<sub>4</sub>/day</b>	
N <sub>2</sub> O emissions	6833.92	g N <sub>2</sub> O/year	
<b>N<sub>2</sub>O emissions</b>	<b>0.0187</b>	<b>kg N<sub>2</sub>O/day</b>	
<b>On-Site Transportation</b>			
Propane used in Skid Steer (and shrink wrapping)	8,445	L/year	Provided by Barkman (no change predicted)
<b>Emissions GHG = Fuel Consumption x Emission Factor</b>			
CO <sub>2</sub> Emission Factor	1,510	g CO <sub>2</sub> /L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Propane Vehicles
CH <sub>4</sub> Emission Factor	0.640	g CH <sub>4</sub> /L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Propane Vehicles
N <sub>2</sub> O Emission Factor	0.028	g N <sub>2</sub> O/L	Canada - National Inventory Report 1990-2011 Table A8-11 Emission Factors for Energy Mobile Combustion Sources, Propane Vehicles
CO <sub>2</sub> emissions	12751950.00	g CO <sub>2</sub> /year	
<b>CO<sub>2</sub> emissions</b>	<b>34.94</b>	<b>kg CO<sub>2</sub>/day</b>	
CH <sub>4</sub> emissions	5404.80	g CH <sub>4</sub> /year	
<b>CH<sub>4</sub> emissions</b>	<b>0.0148</b>	<b>kg CH<sub>4</sub>/day</b>	
N <sub>2</sub> O emissions	236.46	g N <sub>2</sub> O/year	
<b>N<sub>2</sub>O emissions</b>	<b>0.0006</b>	<b>kg N<sub>2</sub>O/day</b>	
<b>Stationary Fuel Combustion</b>			<b>Notes</b>
Natural Gas Usage	481,834	m <sup>3</sup> /year	Provided by Barkman (predicted 30% increase)
<b>Emissions GHG = Fuel Consumption x Emission Factor</b>			
CO <sub>2</sub> Emission Factor	1,877	g CO <sub>2</sub> /m <sup>3</sup>	Canada - National Inventory Report 1990-2011 Table A8-1 CO <sub>2</sub> Emission Factors for Natural Gas, Manitoba, Marketable
CH <sub>4</sub> Emission Factor	0.037	g CH <sub>4</sub> /m <sup>3</sup>	Canada - National Inventory Report 1990-2011 Table A8-2 CH <sub>4</sub> and N <sub>2</sub> O Emission Factors for Natural Gas, Industrial
N <sub>2</sub> O Emission Factor	0.033	g N <sub>2</sub> O/m <sup>3</sup>	Canada - National Inventory Report 1990-2011 Table A8-2 CH <sub>4</sub> and N <sub>2</sub> O Emission Factors for Natural Gas, Industrial
CO <sub>2</sub> emissions	904402202.15	g CO <sub>2</sub> /year	
<b>CO<sub>2</sub> emissions</b>	<b>2477.81</b>	<b>kg CO<sub>2</sub>/day</b>	
CH <sub>4</sub> emissions	17827.85	g CH <sub>4</sub> /year	
<b>CH<sub>4</sub> emissions</b>	<b>0.0488</b>	<b>kg CH<sub>4</sub>/day</b>	
N <sub>2</sub> O emissions	15900.52	g N <sub>2</sub> O/year	
<b>N<sub>2</sub>O emissions</b>	<b>0.0436</b>	<b>kg N<sub>2</sub>O/day</b>	
<b>TOTAL EMISSIONS AS CO<sub>2</sub> EQUIVALENT</b>			
Total CO <sub>2</sub>	3155.18	kg CO <sub>2</sub> /day	
Total CH <sub>4</sub>	0.099	kg CH <sub>4</sub> /day	
Total N <sub>2</sub> O	0.0716	kg N <sub>2</sub> O/day	
GWP CH <sub>4</sub>	21		IPCC values
GWP N <sub>2</sub> O	310		IPCC values
<b>Total CO<sub>2</sub>e</b>	<b>3,179</b>	<b>kg CO<sub>2</sub>e/day</b>	
	<b>1,161</b>	<b>tonnes CO<sub>2</sub>e/year</b>	