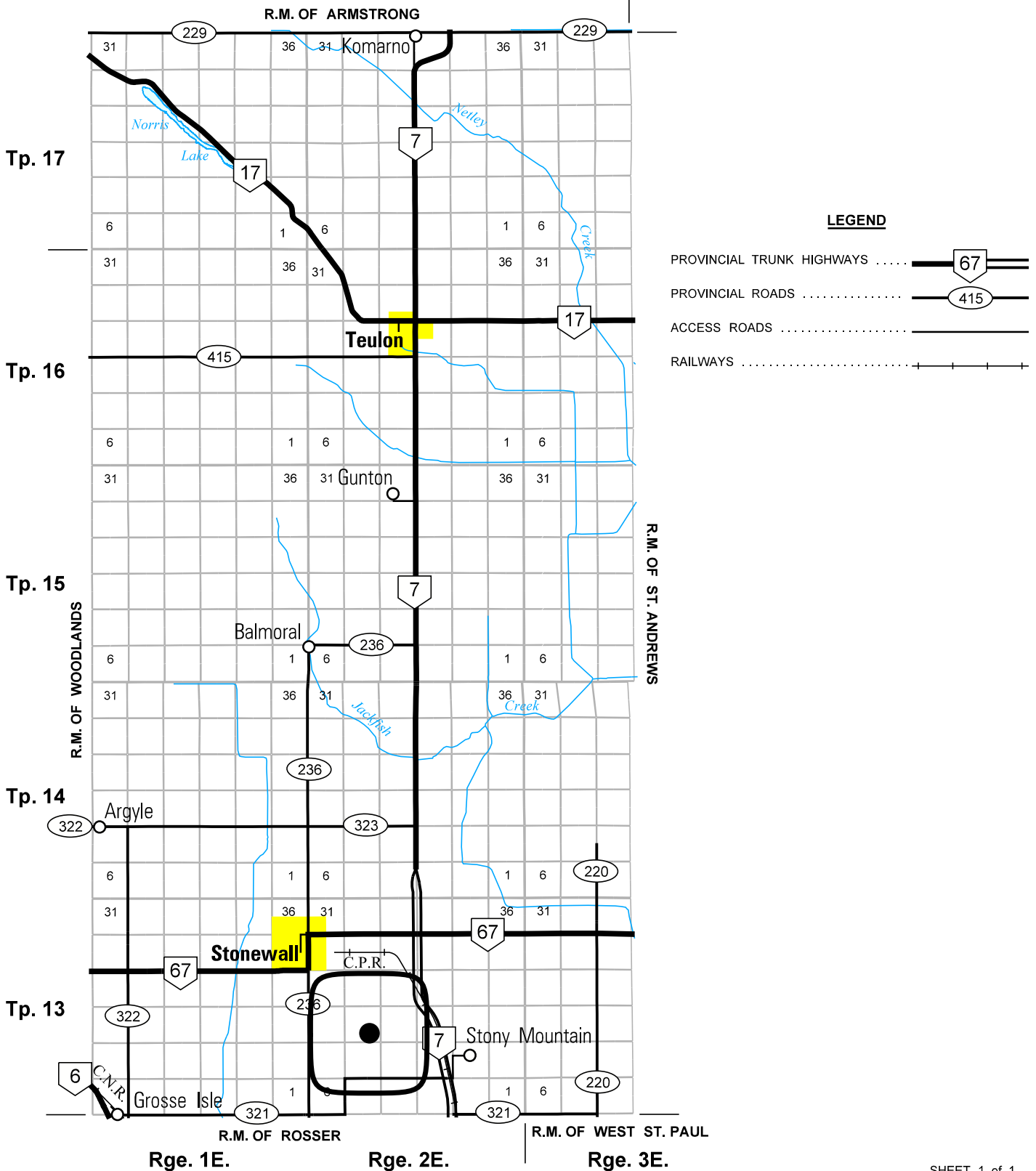


# R.M. OF ROCKWOOD



0 5  
SCALE IN KILOMETRES

PROVINCE OF MANITOBA  
INFRASTRUCTURE  
HIGHWAY PLANNING AND DESIGN BRANCH  
GEOGRAPHIC & RECORDS MANAGEMENT SECTION  
WINNIPEG  
JANUARY 2015



# Animal Units Calculator

A	B	C	Current Operation		Proposed Operation	
			D	E	F	G
Operation Type	Animal Categories	Animal Units per Head	Current Number of Animals <sup>1</sup>	Current Animal Units	Proposed Number of Animals <sup>2</sup>	Proposed Number of Animal Units
Dairy <sup>3</sup>	Mature cows (lactating and dry) including associated livestock	2	140	280	360	720
	Mature cows (lactating and dry)	1.35		-		-
	Heifers (0 to 3 months)	0.16		-		-
	Heifers (4 to 13 months)	0.41		-		-
	Heifers (> 13 months)	0.87		-		-
	Bulls	1.35		-		-
	Veal calves	0.13		-		-
Beef	Beef cows including associated livestock	1.25		-		-
	Backgrounder	0.5		-		-
	Summer pasture / replacement heifers	0.625		-		-
	Feeder cattle	0.769		-		-
Pigs	Sows - farrow to finish (234-254 lbs)	1.25		-		-
	Sows - farrow to weaning (up to 11 lbs)	0.25		-		-
	Sows - farrow to nursery (51 lbs)	0.313		-		-
	Boars (artificial insemination units)	0.2		-		-
	Weanlings, Nursery (11-51 lbs)	0.033		-		-
	Growers / Finishers (51-249 lbs)	0.143		-		-
Chickens	Broilers	0.005		-		-
	Roasters	0.01		-		-
	Layers	0.0083		-		-
	Pullets	0.0033		-		-
	Broiler breeder pullets	0.0033		-		-
	Broiler breeder hens	0.01		-		-
Turkeys	Broilers	0.01		-		-
	Heavy Toms	0.02		-		-
	Heavy Hens	0.01		-		-
Horses	Mares	1.333		-		-
Sheep	Ewes	0.2		-		-
	Feeder lambs	0.063		-		-
Other Livestock	Type:			-		-
	Type:			-		-
Total Current:				280	Total Proposed:	720

**Footnotes:**

<sup>1</sup> Enter the current number of animals on the farm based on the operation's capacity (animal places) or previous Conditional Use Approval.

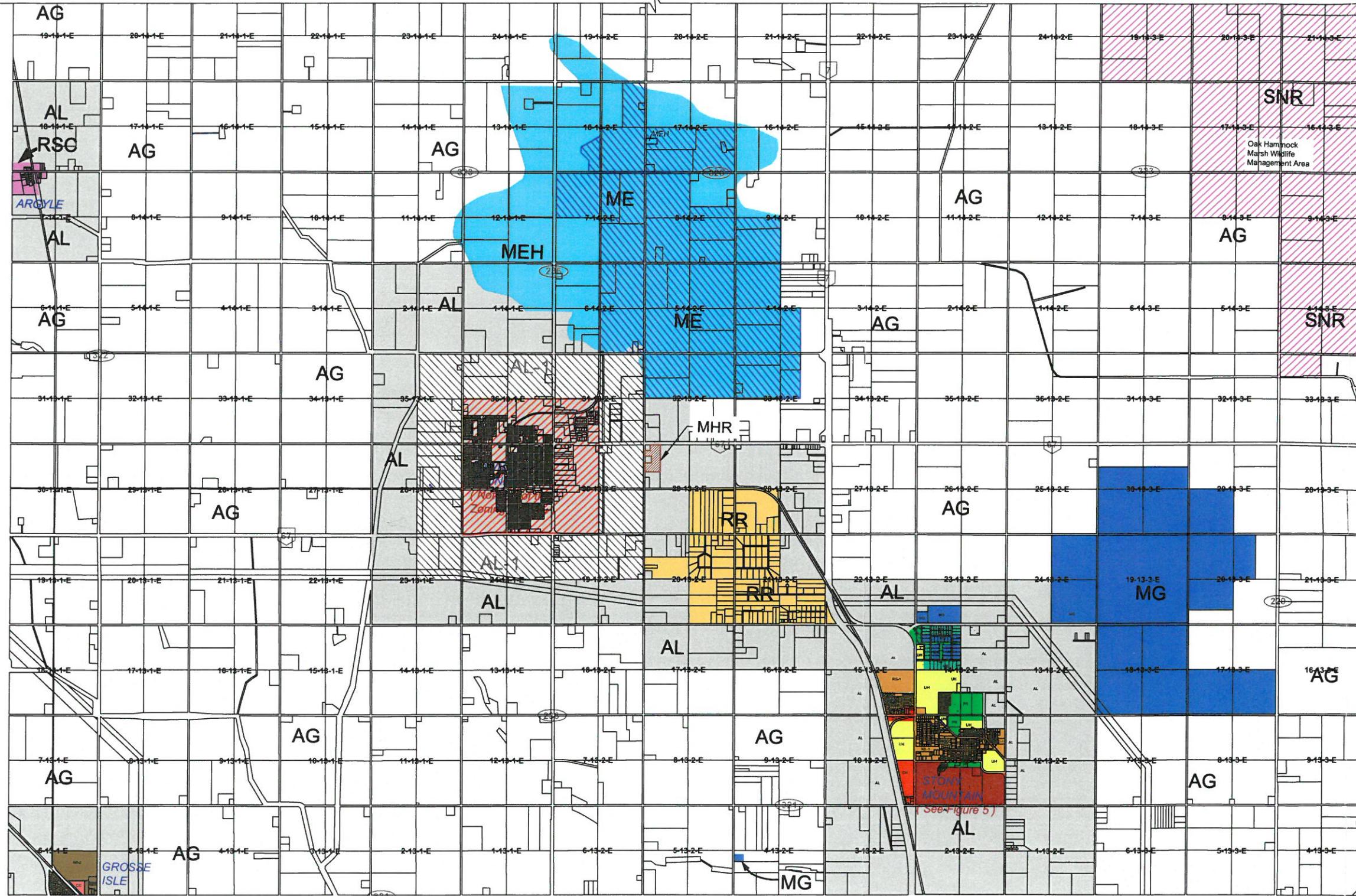
<sup>2</sup> Enter the total number of animals associated with the operation post construction or expansion.

<sup>3</sup> There are 2 methods for calculating animal units for dairy (Farm Practices Guidelines for Dairy Producers in Manitoba, 1995). You can enter the total number of mature cows in the milking herd under the "Mature cows (lactating and dry) including associated livestock" category and the animal units will be calculated by multiplying this number by 2. This calculation assumes 85 lactating, 15 dry, 12 heifers (0 to 3 months), 36 heifers (4 to 13 months) and 50 heifers (> 13 months) for an operation with 100 mature cows. "Associated livestock" includes all of the heifer calves and replacement heifers. Alternatively, you can enter animal numbers in the individual categories (mature cows, heifers (0 to 3 months), heifers (4 to 13 months) and heifers (> 13 months)) and they will be summed at the bottom of the table. Bulls and veal calves are always calculated separately.

[For all other livestock or operation types please inquire with the Manitoba Agriculture Contacts](#)



SEE FIGURE 2 FOR CONTINUOUS MAP

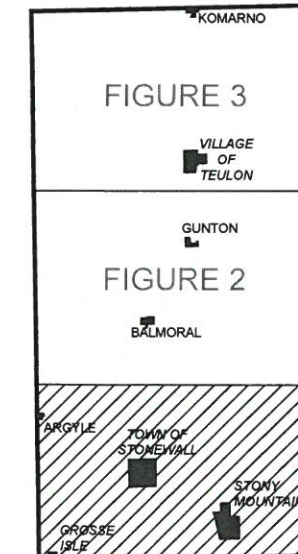


(See Figure 6)

**RM OF ROCKWOOD  
ZONING BY-LAW NO. 17/09  
ZONING MAP  
FIGURE 1**

- |  |      |   |
|--|------|---|
|  | AG   | AGRICULTURAL GENERAL                      |
|  | AL   | AGRICULTURAL LIMITED                      |
|  | AL-1 | AGRICULTURAL LIMITED - STONEWALL VICINITY |
|  | PR   | PARKS AND RECREATION                      |
|  | SNR  | SENSITIVE AND NATURAL RESOURCE            |
|  | I    | INSTITUTIONAL                             |
|  | CH   | COMMERCIAL HIGHWAY                        |
|  | CC   | COMMERCIAL CENTRE                         |
|  | CR   | COMMERCIAL RECREATION                     |
|  | LCR  | LIMITED COMMERCIAL RESIDENTIAL            |
|  | UH   | URBAN HOLDING AREA                        |
|  | MG   | INDUSTRIAL GENERAL                        |
|  | MB   | INDUSTRIAL BUSINESS                       |
|  | ME   | INDUSTRIAL EXTRACTIVE                     |
|  | MEH  | INDUSTRIAL EXTRACTIVE HOLDING AREA        |
|  | RR   | RURAL RESIDENTIAL                         |
|  | RSC  | RURAL SETTLEMENT CENTRE                   |
|  | RS-1 | RESIDENTIAL SINGLE FAMILY                 |
|  | RS-2 | RESIDENTIAL SINGLE FAMILY                 |
|  | RM   | RESIDENTIAL MULTIPLE FAMILY               |
|  | RC   | RESIDENTIAL COMPREHENSIVE                 |
|  | MHR  | RESIDENTIAL MOBILE HOME                   |
|  |      | LIMIT OF ZONES                            |

Approved July 28, 2010



**KEY PLAN**



Lifewind Dairy Site Location

# Lifewind Dairy Site Plan

Proposed New  
Barn 460' x 136'

Proposed New EMS  
175' x 300'

Approx.  
700'

Well

Well

## Dairy Barn Water Requirement Estimator\*

Enter the following farm data:

Number of lactating/milking cows	300
Average milk production (litres)	33 **
Parlor or tie stall (P/TS)	robotic milker
Collection yard if free stall (Y/N)	N
Plate cooler (Y/N)	Y
Milkings per day	2
Plate cooler water reused? (Y/N)	Y

Total water needs estimate per day:	
Litres	52845
Imperial gallons	11640
Cubic decametres	0.05

Total water needs estimate per year:	
Litres	19288425
Imperial gallons	4248552
Cubic decametres	19.29

\*Calculations are based on Manitoba AVERAGES for

- Feed composition

Animal Type (A)	Animal Sub-type (B)	Daily Manure Production				Production Period <sup>2</sup> (Days) (G)	Number of Animals <sup>3</sup> (Capacity) (H)	Total Manure Volume (ft <sup>3</sup> ) (FxGxH)	Total Manure Volume for Semi-Solid and Liquid Manure (Imp Gal)	
		References (C)	Manure Type (D)	Default Manure Production (ft <sup>3</sup> /animal/day) (E)	Operation Manure Production <sup>1</sup> (ft <sup>3</sup> /animal/day) (F)					
Dairy (milking cows <sup>4</sup> and associated livestock)	Free Stall	Table 6, pg 59, FPGs for Dairy 1995	Semi-Solid <sup>5</sup>	3.5				-	0.0	
			Solid	3.4				-		
			Liquid <sup>5</sup>	3.5	3.5	365	300	383,250.00	2,387,647.5	
	Tie Stall		Semi-Solid <sup>5</sup>	3.6					-	0.0
			Solid	3.5					-	
			Liquid <sup>5</sup>	3.6					-	0.0
Solid Manure Housing (See note Sec 8.2)	Solid	3.0	2.5	365	150	136,875.00				
Milking Parlour Manure and Washwater	Liquid	0.5	0.5	365	300	54,750.00				
Beef	Beef cows including associated livestock	pg 117, FPGs for Hogs 1998	Solid	1.2				-		
	Backgrounder (200 day)		Solid	0.73				-		
	Summer pasture / replacement heifers		Solid	0.85				-		
	Feeder cattle		Solid	1.1				-		
Pigs	Sows - farrow to finish (234 - 254 lbs)	MAFRI website, FPGs for Pigs 2007	Liquid	2.3				-	0.0	
	Sows - farrow to wean (up to 11 lbs)		Liquid	0.8				-	0.0	
	Sows - farrow to nursery (51 lbs)		Liquid	1				-	0.0	
	Weanlings, Nursery (11 - 51 lbs)		Liquid	0.1				-	0.0	
	Grower / Finisher (51 - 249 lbs)		Liquid	0.25				-	0.0	
Animal Type	Type of Operation	Yearly Manure Production		Production Period <sup>2</sup> (Days)	Number of Birds <sup>3</sup> (Capacity)	Total Manure Volume (ft <sup>3</sup> ) (F/365xGxH)	Total Manure Volume for Semi-Solid and Liquid Manure (Imp Gal)			
		Default Manure Production (ft <sup>3</sup> /year/bird space)	Operation Manure Production <sup>1</sup> (ft <sup>3</sup> /year/bird space)							
Chickens	Broilers – floor <sup>6</sup>	Table 3, pg 85, FPGs for Poultry 2000		1.23				-		
	Broiler breeder hens <sup>7</sup>			2.3				-		
	Broiler breeder pullets <sup>6</sup>			0.99				-		
	Roasters – floor <sup>6</sup>			1.16				-		
	Layers – cage <sup>8</sup>			2.33				-	0.0	
	Layers – floor <sup>7</sup>			1.68				-		
	Layers – solid pack <sup>9</sup>							-		
	Pullets – cage <sup>8</sup>			0.71				-	0.0	
	Pullets – floor <sup>6</sup>			0.75				-		
Pullets – solid pack <sup>9</sup>						-				
Turkeys	Broilers <sup>6</sup>	Table 3, pg 85, FPGs for Poultry 2000		2.83				-		
	Heavy toms <sup>6</sup>			5.58				-		
	Heavy hens <sup>6</sup>			3.32				-		

Sizing of a manure storage facility in accordance with all requirements of the *Livestock Manure and Mortalities Management Regulation* (M.R. 42/98) is the responsibility of the operator.

**Instructions and footnotes:**

- <sup>1</sup> ENTER the manure production estimate for your operation. If no estimate is available, use the default value provided in column E. References for default daily and yearly manure production are provided in column C.
- <sup>2</sup> ENTER the number of days worth of manure that will be produced. For earthen manure storage facilities the minimum storage requirement is 400 days. For steel and concrete manure storage facilities the minimum storage requirement is 250
- <sup>3</sup> ENTER the total number of animals or birds that the operation can hold (e.g. barn or feedlot capacity).
- <sup>4</sup> Milking cows includes all lactating and dry cows.
- <sup>5</sup> Default manure production estimates for semi-solid and liquid dairy manure include manure and washwater from the milking parlour.
- <sup>6</sup> 2 inches of wood shavings or 4 inches of straw placed on floor. Manure and litter removed from barn at 25% moisture content, with a density of 20 lb/ft<sup>3</sup>
- <sup>7</sup> One-third litter floor, two-thirds slatted floor. Manure and litter removed from barn at 40% moisture content, with a density of 25 lb/ft<sup>3</sup>
- <sup>8</sup> Manure removed from barn at 90% moisture content with a density of 59 lb/ft<sup>3</sup>
- <sup>9</sup> Poultry operations using litter (solid pack) must provide an estimate of yearly manure production

### Existing and Proposed Manure Storage Facility Dimension Table

If applicable, indicate the dimensions of any existing manure storage facility (MSF) that will be used to store manure from the proposed project:

CELL	Existing Manure Storage Facility Bottom Dimensions						Storage Capacity (days)
	Width	Length	Depth	Height (Above Grade)	Slope (H:L)		
					Inside	Outside	
Primary	100 ft	180 ft	13 ft	3 ft	3:1	5:1	83
Secondary	ft	ft	ft	ft			
Tertiary	ft	ft	ft	ft			
Circular Tank	Diameter	Height	Depth (Above Grade)				
	ft	ft	ft				

Permit/Registration # \_\_\_\_\_

Note: constructed prior to permitting requirement



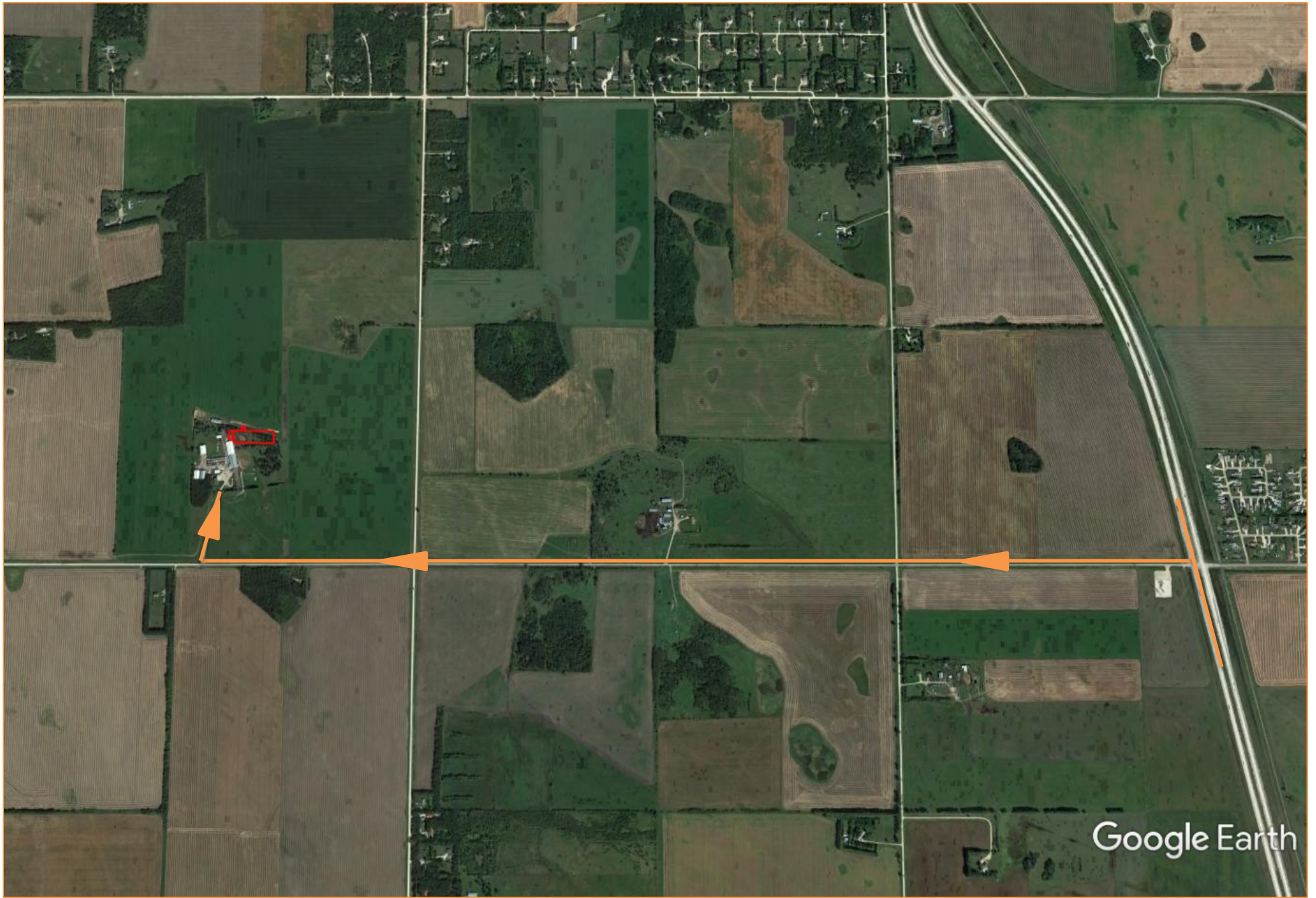


If available, indicate the dimensions of any proposed manure storage facility (MSF) that will be used to store manure from the proposed project:

CELL	Proposed Manure Storage Facility Dimensions						Storage Capacity (days)
	Width	Length	Depth	Height (Above Grade)	Slope (H:L)		
					Inside	Outside	
Primary	175 ft	300 ft	13 ft	3 ft	3.5:1	5:1	368
Secondary	ft	ft	ft	ft			
Tertiary	ft	ft	ft	ft			
Circular Tank		Diameter	Height	Depth			
		ft	ft	ft			

The construction, modification or expansion of any manure storage structure requires a permit from Manitoba Sustainable Development as per the *Livestock Manure and Mortalities Management Regulation (M.R. 42/98)*.





Lifewind Farms Truck Route

Type	Storage Type	Volatilization	Animal Numbers	Weight In (lb)	Weight Out (lb)	Average Animal Wt (lb)	Days on Feed per Cycle (days)	Number of Cycles per Year	N Excreted Per Herd Adjusted for Storage N Loss (lb/yr/herd)	P2O5 Excreted per Herd Per Year (lb/yr/herd)
Lactating Cows	Liquid Uncovered Earthen	30%	0	1400	1440	1420	365	1	0	0
Dry Cows	Liquid Uncovered Earthen	30%	0	1440	1440	1440	365	1	0	0
Calves, 0-3 months	Liquid Uncovered Earthen	30%	0	90	275	183	365	1	0	0
Calves, 4-13 months	Liquid Uncovered Earthen	30%	0	275	810	543	365	1	0	0
Replacements, >13 months	Liquid Uncovered Earthen	30%	0	810	1250	1030	365	1	0	0
Mature Cows, plus associated livestock	Liquid Uncovered Earthen	30%	360	n/a	n/a	n/a	n/a	n/a	93876	49816

Last revised August 20, 2014

Crop	Removal		Uptake		Yield	Units	Acreage	Removal		Uptake
	P205	N	N	Units				(lb)	N	(lb)
Alfalfa	13.8	58	58	lb/ton	1.869	ton/ac	172	4436	18645	18645
Barley Grain	0.42	0.97	1.39	lb/bu	62.3	bu/ac	148	3873	8944	12816
Barley Silage	11.8	34.4	34.4	lb/ton		ton/ac		-	-	-
Canola	1.04	1.93	3.19	lb/bu	33.6	bu/ac	281	9819	18222	30119
Corn Grain	0.44	0.97	1.53	lb/bu	125.5	bu/ac	44	2430	5356	8449
Corn Silage	12.7	31.2	31.2	lb/ton	4.88705	tons/ac	97	6020	14790	14790
Dry Edible Beans	1.39	4.17		lb/cwt		cwt/ac		-	-	-
Fababeans	1.79	5.02	8.4	lb/cwt		cwt/ac		-	-	-
Flax	0.65	2.13	2.88	lb/bu		bu/ac		-	-	-
Grass Hay	10	34.2	34.2	lb/ton	1.144	tons/ac	70	801	2739	2739
Lentils	1.03	3.39	5.08	lb/cwt		cwt/ac		-	-	-
Oats	0.26	0.62	1.07	lb/bu		bu/ac		-	-	-
Pasture (grazed)	10	34.2	34.2	lb/ton	0.5	ton/ac		-	-	-
Peas	0.69	2.34	3.06	lb/bu		bu/ac		-	-	-
Potatoes	0.09	0.32	0.57	lb/cwt		cwt/ac		-	-	-
Rye	0.45	1.06	1.67	lb/bu		bu/ac		-	-	-
Soybeans	0.84	3.87	5.2	lb/bu	33.6	bu/ac	160	4516	20805	27955
Sunflower	1.1	2.8		lb/cwt		cwt/ac		-	-	-
Wheat - Spring	0.59	1.5	2.11	lb/bu	51.8	bu/ac	144	4401	11189	15739
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac		-	-	-
<b>Sub Total</b>							<b>1116</b>	<b>36296</b>	<b>100690</b>	<b>131252</b>
<b>Estimated Average Removal/Uptake (lb/ac)</b>								<b>32.5</b>	<b>90.2</b>	<b>117.6</b>
<b>Additional Acres</b>							<b>0</b>			
<b>Crop Planned on Additional Acres</b>										
<b>Total Acreage</b>							<b>1116</b>			
<b>Note:</b> Additional acres include acres for which crop removal or soil data is limited or unavailable.										

Last revised August 20, 2014

Species	Animal Category/Operation type	N (lb/year)	P2O5 (lb/year)
<b>Pigs</b>	Gestating Sow	0	0
	Nursing Sow	0	0
	Nursing Litter	0	0
	Live Cull Sows	0	0
	Bred Gilts	0	0
	Gilts	0	0
	Boars	0	0
	Weanlings	0	0
	Growers/finishers	0	0
	Sows, farrow to 5 kg	0	0
	Sows, farrow to 23 kg	0	0
	Sows, farrow to finish	0	0
	<b>Beef</b>	Mature Cows (>2 years old)	0
Bred Heifer (14 mo - 2 years)		0	0
Replacement Heifers (7 mo-14 mo)		0	0
Unweaned Calves (0-7 mo)		0	0
Bulls		0	0
Mature Cows and Bred Heifers, plus associated livestock		0	0
Feedlot Cattle - long keep		0	0
Feedlot Cattle - short keep		0	0
Backgrounders - pasture		0	0
Backgrounders - confined		0	0
<b>Dairy</b>	Lactating cow	0	0
	Dry cow	0	0
	Calf, 0-3 months	0	0
	Calf, 4-13 months	0	0
	Replacements, >13 months	0	0
	Mature Cows, plus assoc livestock	93876	49816
<b>Sheep</b>	Ewes	0	0
	Replacement Ewes	0	0
	Rams	0	0
	Lambs	0	0
	Ewes, plus assoc livestock	0	0
	Feeder	0	0
<b>Chickens</b>	Broilers	0	0
	Broiler Breeder Pullets	0	0
	Broiler Breeder Hens	0	0
<b>Layers</b>	Layer Pullets	0	0
	Layer Hens	0	0
	Breeder Pullets	0	0
	Breeder Hens	0	0
<b>Turkeys</b>	Broiler Hens (0-9 wks)	0	0
	Hens (0-11 wks)	0	0
	Heavy Hens (0-14 wks)	0	0
	Light Toms (0-12 wks)	0	0
	Toms (0-13 wks)	0	0
	Heavy Toms (0-15 wks)	0	0
	Breeding Hen Growers (0-30 wks)	0	0
	Breeding Hens (30-60 wks)	0	0
	Breeding Tom Grower (0-18 wks)	0	0
	Breeding Tom Grower (0-30 wks)	0	0
	Breeding Tom (30-60 wks)	0	0
<b>Total</b>		<b>93876</b>	<b>49816</b>

**Note:** Be sure all livestock species on your farm are represented in this table, not just the livestock in the proposed expansion.

<b>Nutrients Excreted</b>		<b>lbs</b>
Nitrogen		93876
P2O5		49816
<b>Crop Nutrient Use</b>		<b>lb/ac</b>
Nitrogen Uptake		117.6
P2O5 Removal		32.5
<b>Land Base Requirements</b>		<b>acres</b>
Acres for Nitrogen Uptake		<b>798</b>
Acres for 2 x P2O5 Removal		<b>766</b>
Acres for 1 x P2O5 Removal		<b>1532</b>

**Archived:** Monday, April 16, 2018 11:39:08 AM

**From:** Friesen, Chris (SD)

**Sent:** Mon, 16 Apr 2018 11:10:37

**To:** 'Gary Plohman'

**Subject:** RE: rare species identification

**Importance:** Normal

---

Gary

Thank you for your information request. I completed a search of the Manitoba Conservation Data Centre's rare species database and found no occurrences at this time for your area of interest.

The information provided in this letter is based on existing data known to the Manitoba Conservation Data Centre at the time of the request. These data are dependent on the research and observations of CDC staff and others who have shared their data, and reflect our current state of knowledge. **An absence of data in any particular geographic area does not necessarily mean that species or ecological communities of concern are not present;** in many areas, comprehensive surveys have never been completed. Therefore, this information should be regarded neither as a final statement on the occurrence of any species of concern, nor as a substitute for on-site surveys for species as part of environmental assessments.

Because the Manitoba CDC's Biotics database is continually updated and because information requests are evaluated by type of action, any given response is only appropriate for its respective request. Please contact the Manitoba CDC for an update on this natural heritage information if more than six months pass before it is utilized.

Third party requests for products wholly or partially derived from Biotics must be approved by the Manitoba CDC before information is released. Once approved, the primary user will identify the Manitoba CDC as data contributors on any map or publication using Biotics data, as follows as: Data developed by the Manitoba Conservation Data Centre; Wildlife & Fisheries Branch, Manitoba Sustainable Development.

**This letter is for information purposes only - it does not constitute consent or approval of the proposed project or activity, nor does it negate the need for any permits or approvals required by the Province of Manitoba.**

We would be interested in receiving a copy of the results of any field surveys that you may undertake, to update our database with the most current knowledge of the area.

If you have any questions or require further information please contact me directly at (204) 945-7747.

Chris Friesen  
Coordinator  
Manitoba Conservation Data Centre  
204-945-7747  
chris.friesen@gov.mb.ca  
<http://www.manitoba.ca/sd/cdc/>

---

**From:** Gary Plohman [mailto:srossing@mymts.net]

**Sent:** April-09-18 3:38 PM

**To:** Friesen, Chris (SD) <Chris.Friesen@gov.mb.ca>

**Subject:** re: rare species identification

Hi Chris

I am currently working on a technical review application for Lifewind Dairy Farm.

Please provide information regarding the presence of rare species as required for the application.

A list of manure spread fields for the farm in the RM of Rockwood is attached indicating legal land locations.

Thanks for your help.

Gary Plohman

204 268-3218

# Manitoba



**Conservation**  
Environmental Services  
1007 Century Street  
Winnipeg, Manitoba R3H 0W4

September 10, 2010

Christophe Roulin  
Box 1923  
Stonewall Manitoba R0C 2Z0

**Re: Roulin, Christopher / Monika - Application for Registration of a Manure Storage Facility  
SE 17-13-2EPM, Rural Municipality of Rockwood, Application Number LR-075-002**

---

Dear Mr. Roulin:

This correspondence is in response to your application for registration of a livestock manure storage facility located on SE 17-13-2EPM.

On the basis of the information reviewed by Manitoba Conservation staff to date, I hereby grant interim registration for your facility for the purposes of compliance with Section 16.3(2) of the *Livestock Manure and Mortalities Management Regulation* MR 42/98. The interim registration number for this facility shall be the same as your application number, LR-075-002.

This interim registration does not imply that the manure storage facility meets current construction standards as required by the *Livestock Manure and Mortalities Management Regulation*, nor does it suggest that any prior environmental impact has been corrected. This interim registration is granted solely for the purpose of allowing you to continue using your facility after November 10, 2010, and in accordance with Section 16.3(9) is granted subject to the condition that it may be opened by the director in the future for the purpose of including additional conditions in the final registration considered necessary for the protection of the environment.

Should you have any questions, please do not hesitate to contact your regional District Supervisor in the Steinbach office (204-346-6060), Winnipeg Office (204-945-5305) or Brandon Office (204-726-6064).

Yours sincerely,

Mike Gilbertson  
Director, *The Environment Act*

cc: District Supervisor  
Environmental Engineering Section



## CROP ROTATION TABLE

A	B	C	D	E
Expected Crops in the Rotation	Acreage	Historical Yield	Units	Source of Yield Information
Alfalfa	172	1.869	Tons/ac	MASC
Timothy (seed and Straw harvested) Used MASC Grasses yield for this crop	70	1.144	Tons/ac	MASC
Canola	281	33.6	Bu/ac	MASC
Barley	148	62.3	Bu/ac	MASC
Wheat	144	51.8	Bu/ac	MASC
Soybeans	160	33.6	BU/ac	MASC
Grain Corn Silage Corn (also used this as the basis for Sorghum – Producer indicated similar yields and fertility)	44 97	125.5 13.963 converted to 35% to DM	Bu/ac Tons/ac	MASC MASC
<b>Total Net Acreage for Manure Application</b>	<b>1116</b>			

- A. List all of the crop(s) to be grown in the rotation on the acreage that will receive manure.
- B. Indicate the average acreage for each crop over the rotation. For example, if there are 720 suitable acres available for manure and approximately 40 these acres will be used to grow canola, enter 288. The total of column B should add up to Total Net Acreage for Manure Application provided in the Manure Application Field Characteristic Table.
- C. Enter the historical yield average for each crop. Long-term yield averages can be determined using MASC data (<http://www.masc.mb.ca/masc.nsf/index.html?OpenPage>) or on-farm yield records. If on-farm yield records are used, please provide copies.
- D. Enter the units for the yields provided (e.g. bu/acre, tons/acre).
- E. Enter the source of the historical yield average provided.

**MANURE APPLICATION FIELD CHARACTERISTICS TABLE**

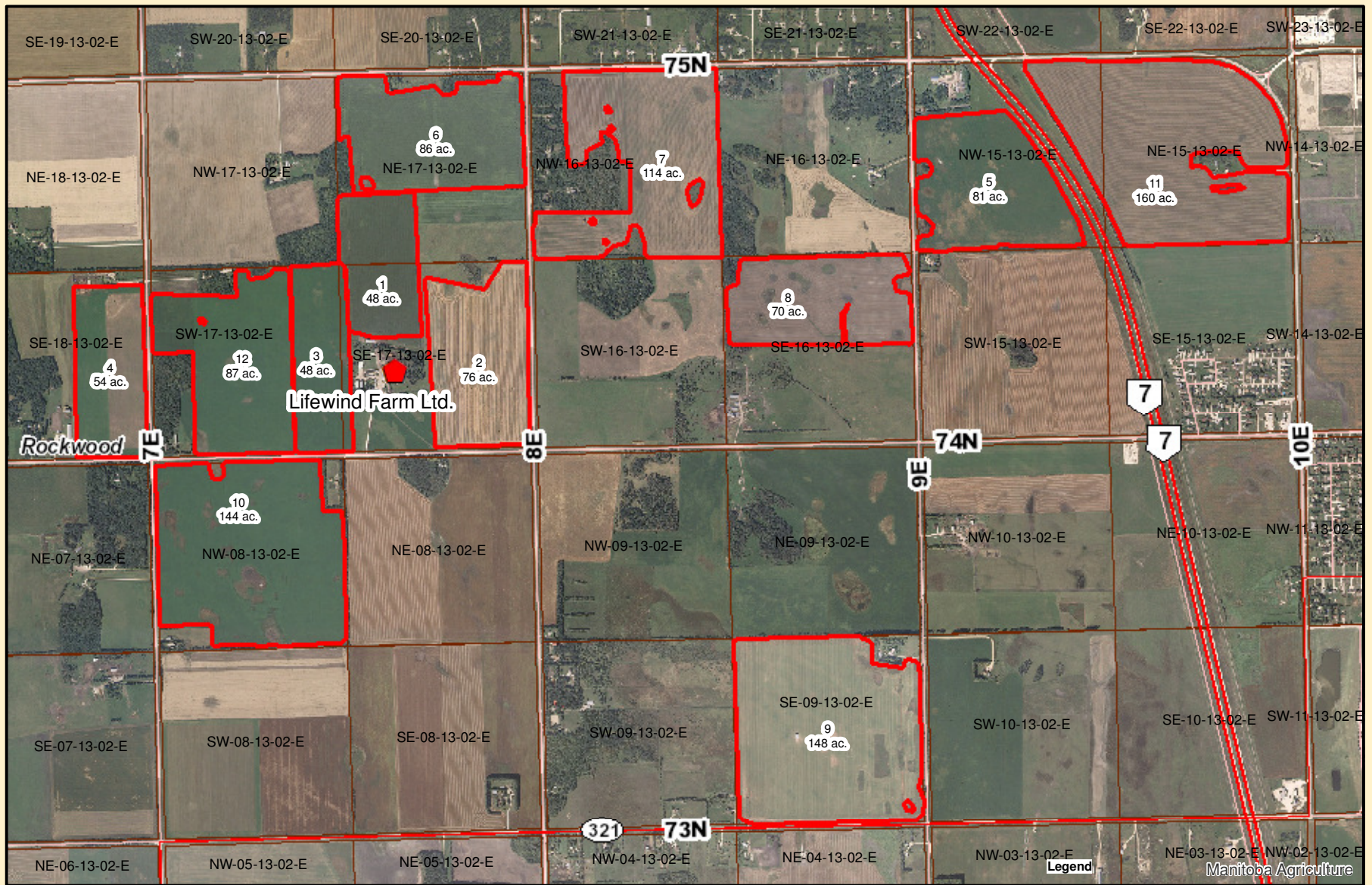


	A	B	C	D	E	F	G	H	I	J
Field	Legal Description	Rural Municipality	O/C/L/A	Total Acreage	Setbacks, including features	Net Acreage for Manure Application	Agriculture Capability Class and Subclass	Soil Phosphorus (ppm Olsen P) 0-6 inches	Development Plan Designation	Zoning
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

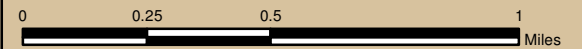
**Total Net Acreage for Manure Application:**

--

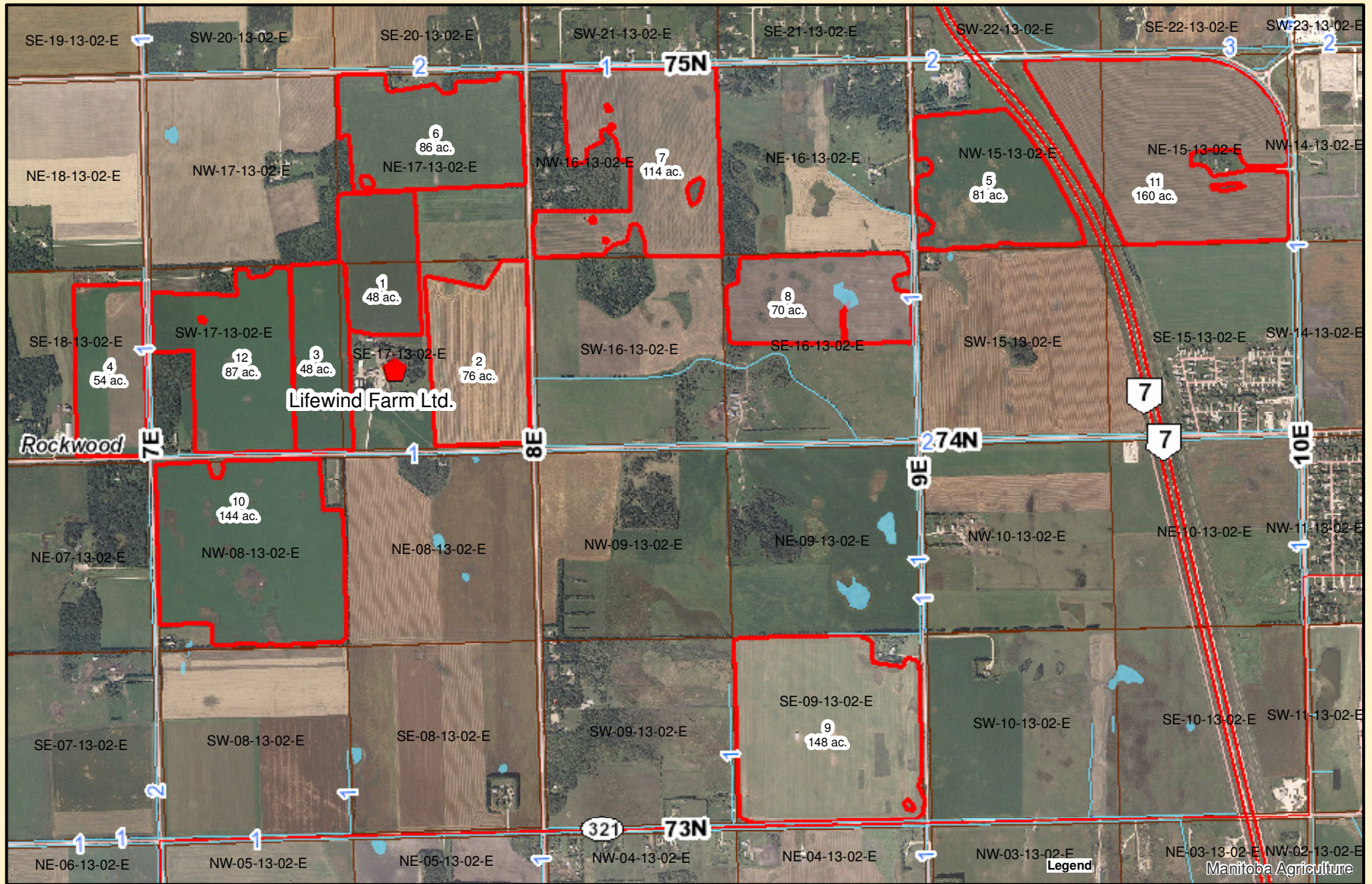
- A. \_\_\_\_\_ Enter the legal description for each parcel of land that will receive manure: Sec, Twp, Rge or River Lot (including parish).
- B. \_\_\_\_\_ Identify the Rural Municipality in which the parcel is located.
- C. \_\_\_\_\_ Indicate how the land has been secured for manure application: O – Own / C-Crown / L – Lease / A – Agreement. Multiple designations may be used as appropriate (ex. C/A for Crown lands that are under a spread agreement with the producer that holds the agricultural Crown land lease).
- D. \_\_\_\_\_ Enter the total acreage for the parcel.
- E. \_\_\_\_\_ Enter setbacks from surface water or groundwater features that reduce the land available for manure application; include identification of type of feature (ex. 8m, Order 3 drain).
- F. \_\_\_\_\_ Enter the net acreage available for manure application for the parcel after taking into account setbacks and excluding Class 6, 7 and unimproved organic soils.
- G. \_\_\_\_\_ Enter the agriculture capability class and subclass ratings for the acreage available for manure application.
- H. \_\_\_\_\_ Provide soil test results for phosphorus in ppm Olsen P for soil samples taken at the 0-6 inch depth. Soil test results must be no more than 12 months old and must be completed by an accredited soil-testing laboratory.
- I. \_\_\_\_\_ Indicate the Development Plan and its by-law number in addition to the map designation for each field (ex. By-law #1/2008: AG).
- J. \_\_\_\_\_ Indicate the Zoning By-law and its by-law number in addition to the zoning for each field (ex. By-law 12/2009: AG 80).



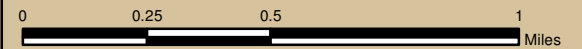
# Lifewind Farms Ltd. Spread Acres

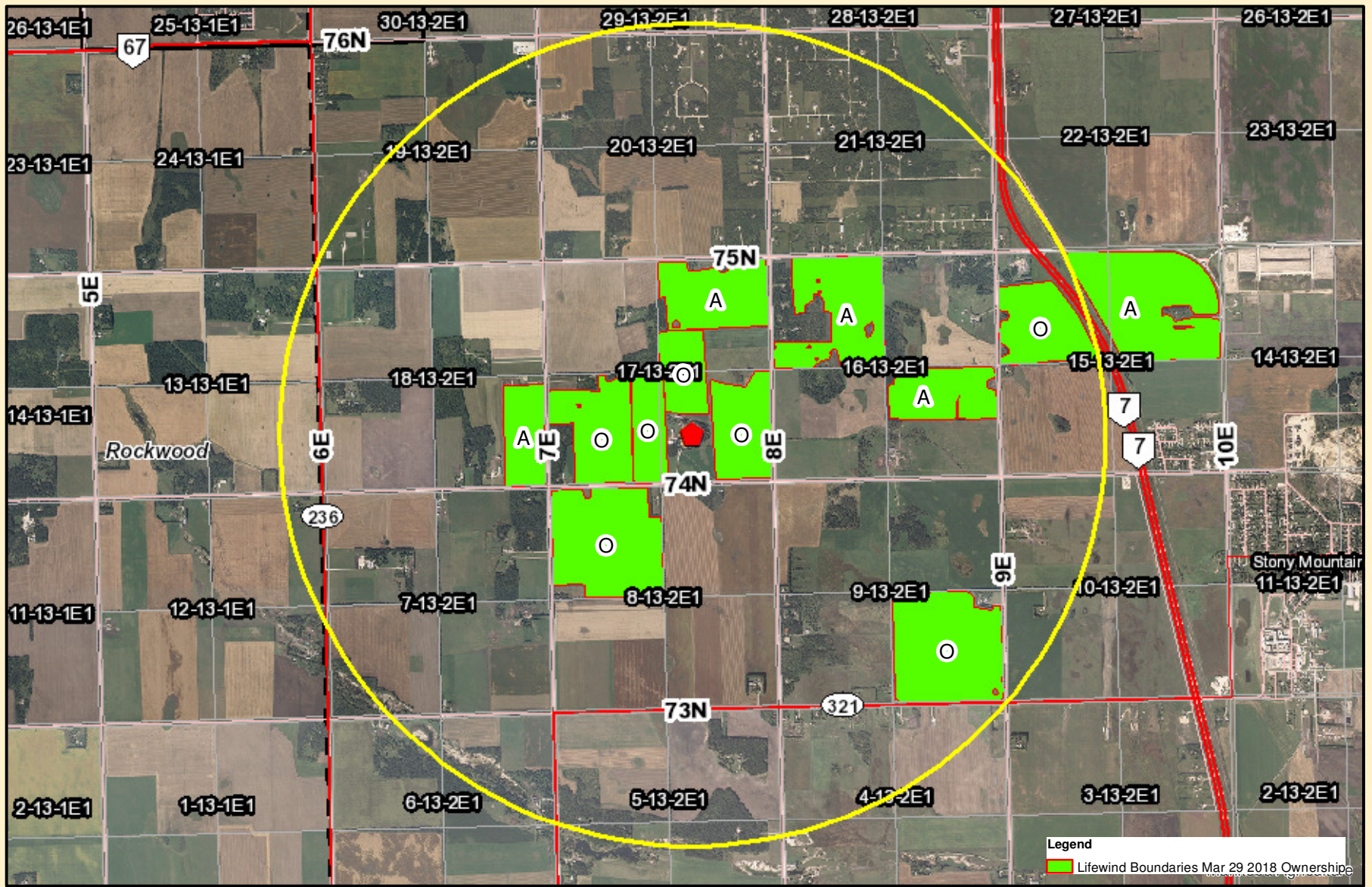







# Lifewind Farms Ltd. Drains

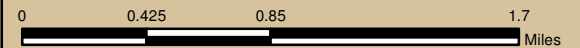


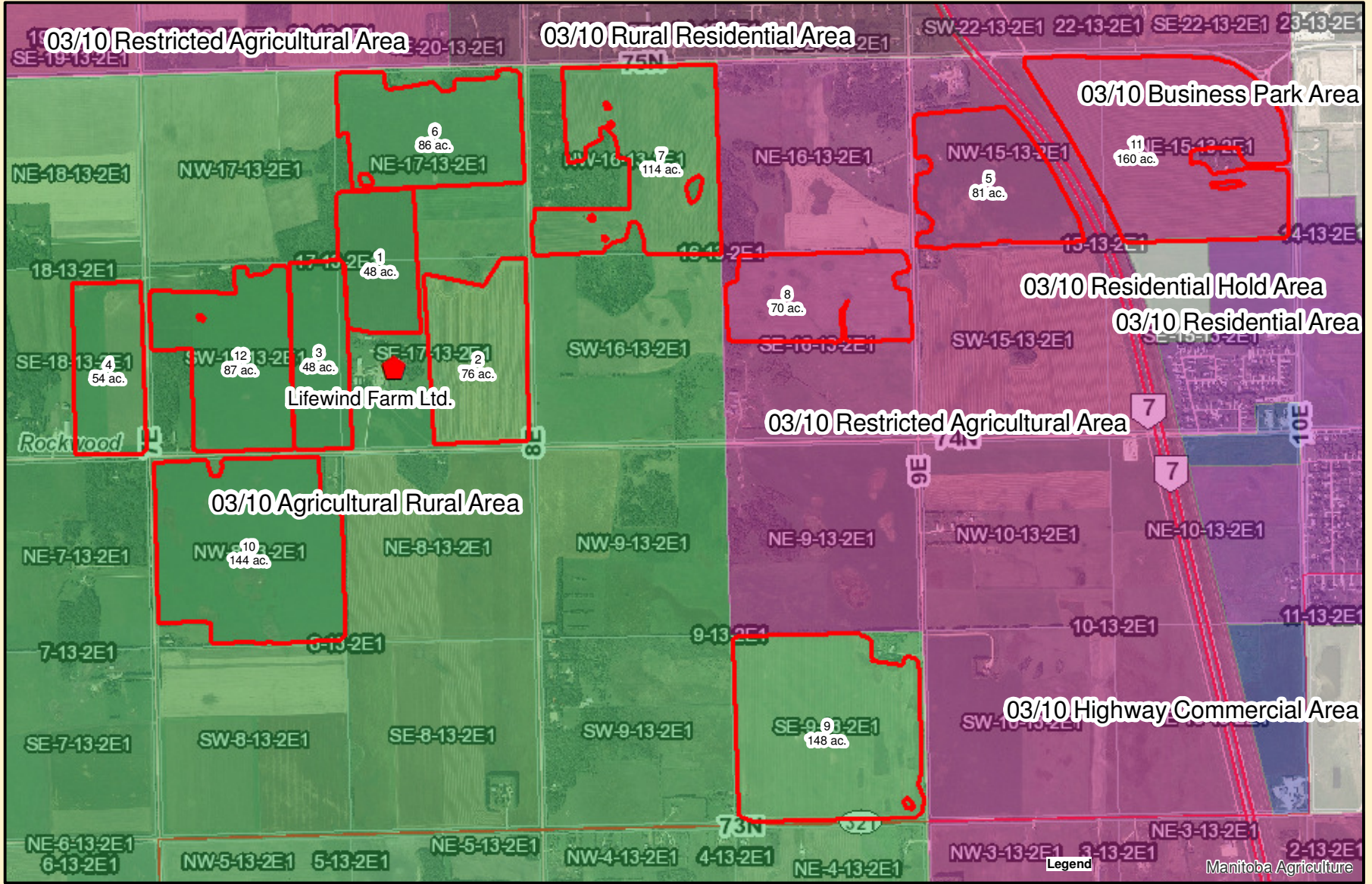


Legend  
 Lifewind Boundaries Mar 29 2018 Ownerships

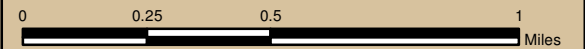


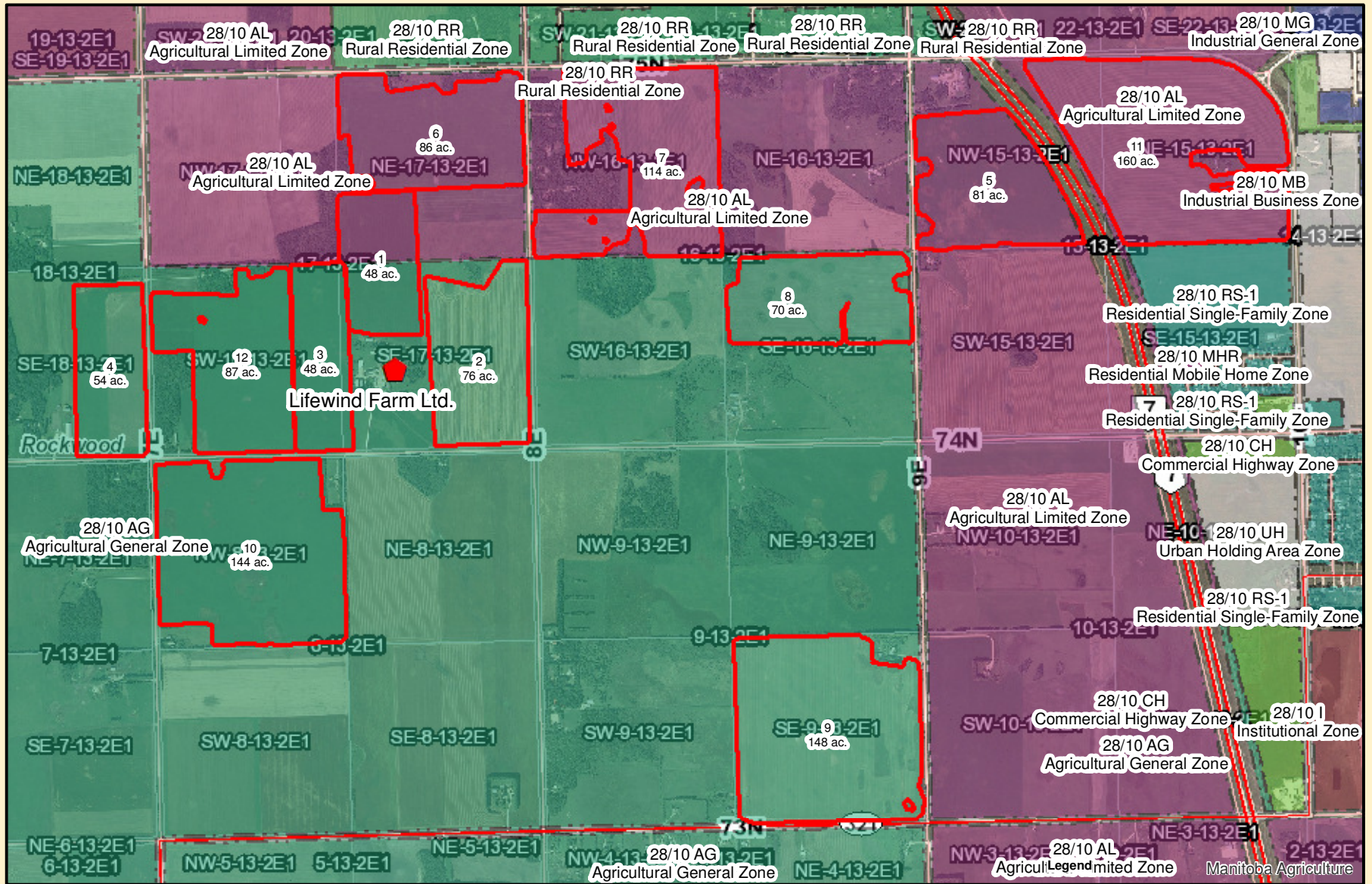
# Lifewind Farms Ltd. Land Use



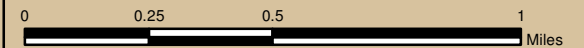


# Lifewind Farms Ltd. Land Use - Development Plan





# Lifewind Farms Ltd. Land Use - Zoning



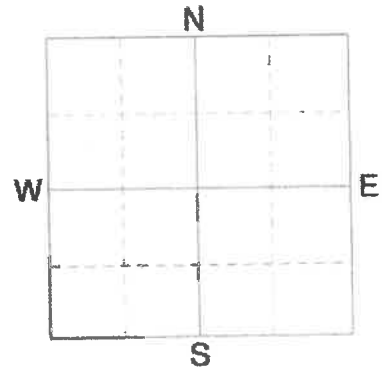




Soil Analysis by Agvise Laboratories  
 (http://www.agvise.com)  
 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID **1**  
 SAMPLE ID  
 FIELD NAME **Behind Yard**  
 COUNTY  
 TWP **13** RANGE **2E**  
 SECTION **17** QTR **Center** ACRES **50**  
 PREV. CROP



**SUBMITTED FOR:**

**Chris Roulin**  
**Box 1923**  
**Stonewall, MB**

**RDC 220**

**SUBMITTED BY: TE0817**

**TERRACO-STONEWALL**  
**HIGHWAY 67 WEST**  
**BOX 779**  
**STONEWALL, MB**

**RDC 220**

REF # **1982990** BOX # **0**  
 LAB # **NW65624**

Date Sampled

Date Received **09/12/2017**

Date Reported **10/26/2017**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
		Very Low	Low	Med	High	YIELD GOAL		YIELD GOAL		YIELD GOAL			
						SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
						LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Nitrate	0-6"					N		N		N			
	6-24"					P <sub>2</sub> O <sub>5</sub>		P <sub>2</sub> O <sub>5</sub>		P <sub>2</sub> O <sub>5</sub>			
Phosphorus	Olsen					K <sub>2</sub> O		K <sub>2</sub> O		K <sub>2</sub> O			
Potassium						Cl		Cl		Cl			
Chloride	0-24"					S		S		S			
	0-6"					B		B		B			
Sulfur	6-24"					Zn		Zn		Zn			
						Fe		Fe		Fe			
Boron						Mn		Mn		Mn			
Zinc						Cu		Cu		Cu			
Iron						Mg		Mg		Mg			
Manganese						Lime		Lime		Lime			
Copper													
Magnesium													
Calcium													
Sodium													
Org. Matter													
Carbonate(CCE)													
Sol. Salts	0-6"												
	6-24"												
						Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
									% Ca	% Mg	% K	% Na	% H
						0-6" 7.8		41.0 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
						6-24" 8.3			74.0	23.9	1.7	0.3	

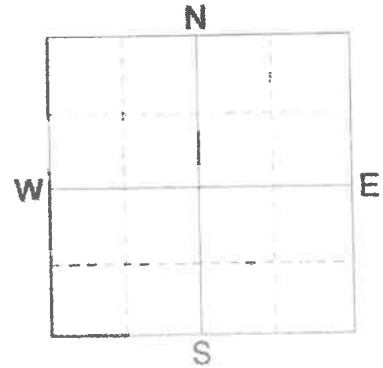
General Comments: Texture is not estimated on high pH soils.



Soil Analysis by Agvise Laboratories  
 (http://www.agvise.com)  
 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID **2**  
 SAMPLE ID  
 FIELD NAME **East Home Yard**  
 COUNTY  
 TWP **13** RANGE **2E**  
 SECTION **17** QTRSE ACRES **0**  
 PREV. CROP



#### SUBMITTED FOR:

Chris Roulin  
 Box 1923

Stonewall, MB

RDC 220

#### SUBMITTED BY: TE0817

TERRACO-STONEWALL  
 HIGHWAY 67 WEST  
 BOX 779

STONEWALL, MB

RDC 220

REF # **1982994** BOX # **0**  
 LAB # **NW65821**

Date Sampled

Date Received **09/13/2017**

Date Reported **10/26/2017**

Nutrient In The Soil		Interpretation V Low Low Med High	1st Crop Choice		2nd Crop Choice		3rd Crop Choice	
			YIELD GOAL		YIELD GOAL		YIELD GOAL	
			SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES	
			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION
Nitrate	0-6"	17 lb/ac						
	6-24"	12 lb/ac						
	0-24"	29 lb/ac						
Phosphorus	Olsen	36 ppm						
Potassium		316 ppm						
Chloride	0-24"	28 lb/ac						
	0-6"	20 lb/ac						
Sulfur	6-24"	42 lb/ac						
Boron		1.7 ppm						
Zinc		2.37 ppm						
Iron		27.7 ppm						
Manganese		1.9 ppm						
Copper		1.52 ppm						
Magnesium		967 ppm						
Calcium		5432 ppm						
Sodium		22 ppm						
Org.Matter		6.6 %						
Carbonate(CCE)		2.9 %						
Sol. Salts	0-6"	0.4 mmho/cm						
	6-24"	0.34 mmho/cm						
Soil pH								
Buffer pH								
Cation Exchange Capacity								
36.1 meq								
% Base Saturation (Typical Range)								
% Ca	(65-75)							
% Mg	(15-20)							
% K	(1-7)							
% Na	(0-5)							
% H	(0-5)							

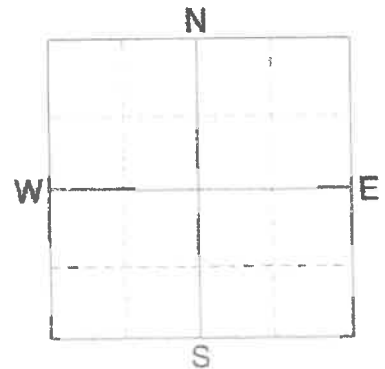
General Comments: Texture is not estimated on high pH soils.



Soil Analysis by Agvise Laboratories  
 (http://www.agvise.com)  
 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID **3**  
 SAMPLE ID  
 FIELD NAME **West Side of Yard**  
 COUNTY  
 TWP **13** RANGE **2E**  
 SECTION **17** QTR **SW** ACRES **50**  
 PREV. CROP



**SUBMITTED FOR:**  
**Chris Roulin**  
**Box 1923**  
**Stonewall, MB RDC 220**

**SUBMITTED BY: TE0817**  
**TERRACO-STONEWALL**  
**HIGHWAY 67 WEST**  
**BOX 779**  
**STONEWALL, MB RDC 220**

REF # **1982995** BOX # **0**  
 LAB # **NW65629**

Date Sampled

Date Received **09/12/2017**

Date Reported **10/26/2017**

Nutrient In The Soil		Interpretation Very Low Low Med High	1st Crop Choice		2nd Crop Choice		3rd Crop Choice	
Depth	Concentration		YIELD GOAL	SUGGESTED GUIDELINES	YIELD GOAL	SUGGESTED GUIDELINES	YIELD GOAL	SUGGESTED GUIDELINES
			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION
Nitrate	0-6"	16 lb/ac						
	6-24"	9 lb/ac						
	0-24"	25 lb/ac						
Phosphorus	Olsen	13 ppm						
Potassium		271 ppm						
Chloride	0-24"	24 lb/ac						
	0-6"	16 lb/ac						
Sulfur	6-24"	18 lb/ac						
Boron		1.5 ppm						
Zinc		1.93 ppm						
Iron		24.5 ppm						
Manganese		2.3 ppm						
Copper		1.27 ppm						
Magnesium		926 ppm						
Calcium		5512 ppm						
Sodium		26 ppm						
Org. Matter		7.4 %						
Carbonate(CCE)		2.8 %						
Sol. Salts	0-6"	0.43 mmho/cm						
	6-24"	0.4 mmho/cm						
Soil pH								
Buffer pH								
Cation Exchange Capacity								
			% Base Saturation (Typical Range)					
			% Ca	% Mg	% K	% Na	% H	
0-6"	7.7		(65-75)	(15-20)	(1-7)	(0-5)	(0-5)	
6-24"	8.0		76.4	21.4	1.9	0.3		

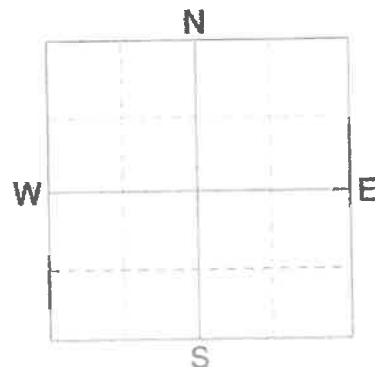
General Comments: Texture is not estimated on high pH soils.



Soil Analysis by Agvise Laboratories  
 (http://www.agvise.com)  
 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID 4  
 SAMPLE ID  
 FIELD NAME Kaegi  
 COUNTY  
 TWP 13 RANGE 2E  
 SECTION 18 QTRSE ACRES 55  
 PREV. CROP



#### SUBMITTED FOR:

Chris Roulin  
 Box 1923

Stonewall, MB

ROC 220

#### SUBMITTED BY: TE0817

TERRACO-STONEWALL  
 HIGHWAY 67 WEST  
 BOX 779

STONEWALL, MB

ROC 220

REF # 1982996 BOX # 0  
 LAB # NW65928

Date Sampled

Date Received 09/13/2017

Date Reported 10/26/2017

Nutrient In The Soil		Interpretation Low Med High	1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
Depth	Concentration		YIELD GOAL	SUGGESTED GUIDELINES	YIELD GOAL	SUGGESTED GUIDELINES	YIELD GOAL	SUGGESTED GUIDELINES		
			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Nitrate	0-6" 10 lb/ac 6-24" 12 lb/ac	****								
	0-24" 22 lb/ac									
Phosphorus	Olsen 16 ppm	*****	P <sub>2</sub> O <sub>5</sub>		P <sub>2</sub> O <sub>5</sub>		P <sub>2</sub> O <sub>5</sub>			
Potassium	393 ppm	*****	K <sub>2</sub> O		K <sub>2</sub> O		K <sub>2</sub> O			
Chloride	0-24" 12 lb/ac	****	Cl		Cl		Cl			
Sulfur	0-6" 14 lb/ac 6-24" 18 lb/ac	*****	S		S		S			
Boron	1.5 ppm	*****	B		B		B			
Zinc	1.35 ppm	*****	Zn		Zn		Zn			
Iron	22.1 ppm	*****	Fe		Fe		Fe			
Manganese	2.8 ppm	*****	Mn		Mn		Mn			
Copper	1.49 ppm	*****	Cu		Cu		Cu			
Magnesium	1298 ppm	*****	Mg		Mg		Mg			
Calcium	6701 ppm	*****	Lime		Lime		Lime			
Sodium	38 ppm	*****								
Org.Matter	7.0 %	*****								
Carbonate(CCE)	3.8 %	*****								
Sol. Salts	0-6" 0.61 mmho/cm 6-24" 0.54 mmho/cm	*****	Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
						% Ca	% Mg	% K	% Na	% H
			0-6" 7.7		45.5 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
			6-24" 8.1			73.6	23.8	2.2	0.4	

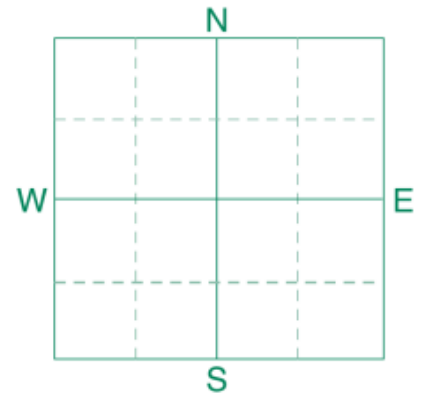
General Comments: Texture is not estimated on high pH soils.



Soil Analysis by Agvise Laboratories  
 (http://www.agvise.com)  
 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID **5**  
 SAMPLE ID  
 FIELD NAME **West of 7**  
 COUNTY  
 TWP **13** RANGE **2E**  
 SECTION **15** QTR **NW** ACRES **88**  
 PREV. CROP



SUBMITTED FOR:  
**Chris Roulin**  
**Box 1923**  
  
**Stonewall, MB**                      **ROC Z20**

SUBMITTED BY: **TE0817**  
**TERRACO-STONEWALL**  
**HIGHWAY 67 WEST**  
**BOX 779**  
**STONEWALL, MB**                      **ROC Z20**

REF # **1982997** BOX # **0**  
 LAB # **NW67163**

Date Sampled \_\_\_\_\_ Date Received **09/13/2017** Date Reported **3/15/2018**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice				
		VLow	Low	Med	High	Corn-Grain			Corn-Grain							
Nitrate	0-6" 17 lb/ac	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL				
	6-24" 21 lb/ac					130 BU			140 BU							
	0-24" 38 lb/ac	SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES					
		Band			Band			Band			Band					
		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION				
Phosphorus	Olsen 7 ppm	*****				N	118		N	130		N				
Potassium	108 ppm	*****				P2O5	49	Band *	P2O5	53	Band *	P2O5				
Chloride	0-24" 28 lb/ac	*****				K2O	43	Band *	K2O	47	Band *	K2O				
Sulfur	0-6" 74 lb/ac	*****				Cl		Not Available	Cl		Not Available	Cl				
	6-24" 72 lb/ac	*****				S	0		S	0		S				
Boron	1.5 ppm	*****				B	0		B	0		B				
Zinc	0.51 ppm	*****				Zn	3	Band	Zn	3	Band	Zn				
Iron	12.1 ppm	*****				Fe	0		Fe	0		Fe				
Manganese	2.8 ppm	*****				Mn	0		Mn	0		Mn				
Copper	0.58 ppm	*****				Cu	0		Cu	0		Cu				
Magnesium	907 ppm	*****				Mg	0		Mg	0		Mg				
Calcium	4482 ppm	*****				Lime			Lime			Lime				
Sodium	39 ppm	*****				Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)				
Org.Matter	2.3 %	*****				Buffer pH			Capacity			% Ca	% Mg	% K	% Na	% H
Carbonate(CCE)	9.9 %	*****				0-6" 8.4			30.4 meq			(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
Sol. Salts	0-6" 0.39 mmho/cm	*****				6-24" 8.7						73.7	24.9	0.9	0.6	
	6-24" 0.21 mmho/cm	*****														

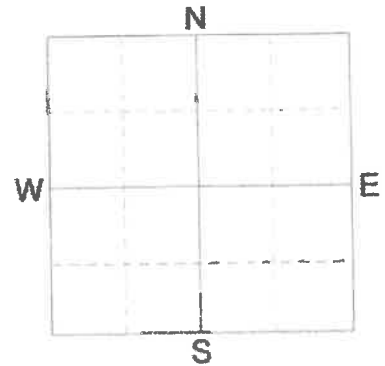
**General Comments:** Texture is not estimated on high pH soils.  
**Crop 1:** \*\* Chloride yield data is limited for this crop. \* Caution: Seed Placed Fertilizer Can Cause Injury \* Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.  
**Crop 2:** \*\* Chloride yield data is limited for this crop. \* Caution: Seed Placed Fertilizer Can Cause Injury \* Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 56 K2O = 38 AGVISE Band guidelines will build P & K test levels to the medium range over many years.



Soil Analysis by Agvise Laboratories  
 (http://www.agvise.com)  
 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID **6**  
 SAMPLE ID  
 FIELD NAME  
 COUNTY  
 TWP **13** RANGE **2E**  
 SECTION **17** QTR **NE** ACRES **80**  
 PREV. CROP



**SUBMITTED FOR:**

Chris Roulin  
 Box 1923

Stonewall, MB ROC 220

**SUBMITTED BY: TE0817**

TERRACO-STONEWALL  
 HIGHWAY 67 WEST  
 BOX 779

STONEWALL, MB ROC 220

REF # **1982999** BOX # **0**  
 LAB # **NW65631**

Date Sampled

Date Received **09/12/2017**

Date Reported **10/26/2017**

Nutrient In The Soil		Interpretation V Low Low Med High	1st Crop Choice		2nd Crop Choice		3rd Crop Choice	
Depth	Concentration		YIELD GOAL	SUGGESTED GUIDELINES	YIELD GOAL	SUGGESTED GUIDELINES	YIELD GOAL	SUGGESTED GUIDELINES
			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION
Nitrate	0-6"	9 lb/ac						
	6-24"		6 lb/ac					
	0-24"	15 lb/ac						
Phosphorus	Olsen	7 ppm						
Potassium		229 ppm						
Chloride	0-24"	24 lb/ac						
	0-6"	16 lb/ac						
	6-24"	24 lb/ac						
Sulfur								
Boron		0.9 ppm						
Zinc		0.70 ppm						
Iron		18.2 ppm						
Manganese		2.5 ppm						
Copper		0.71 ppm						
Magnesium		554 ppm						
Calcium		5204 ppm						
Sodium		23 ppm						
Org.Matter		3.7 %						
Carbonate(CCE)		3.9 %						
Sol. Salts	0-6"	0.28 mmho/cm						
	6-24"	0.22 mmho/cm						
Soil pH								
Buffer pH								
Cation Exchange Capacity								
			% Base Saturation (Typical Range)					
			% Ca	% Mg	% K	% Na	% H	
0-6"	7.9		(65-75)	(15-20)	(1-7)	(0-5)	(0-5)	
6-24"	8.2		83.1	14.7	1.9	0.3		

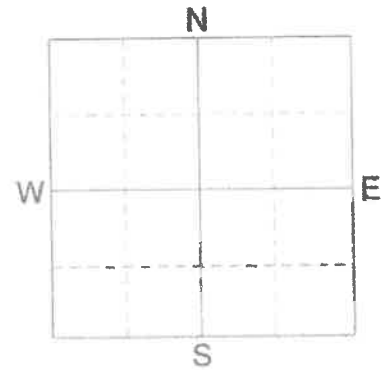
General Comments: Texture is not estimated on high pH soils.



Soil Analysis by Agvise Laboratories  
 (http://www.agvise.com)  
 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID **7**  
 SAMPLE ID  
 FIELD NAME  
 COUNTY  
 TWP **13** RANGE **2E**  
 SECTION **16** QTR **NW** ACRES **150**  
 PREV. CROP



**SUBMITTED FOR:**

Chris Roulin  
 Box 1923

Stonewall, MB

RDC 220

**SUBMITTED BY: TE0817**

TERRACO-STONEWALL  
 HIGHWAY 67 WEST  
 BOX 779

STONEWALL, MB

RDC 220

REF # **1983000** BOX # **0**  
 LAB # **NW85809**

Date Sampled

Date Received **09/26/2017**

Date Reported **10/26/2017**

Nutrient In The Soil		Interpretation Vltw Low Med High	1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
Depth	Concentration		YIELD GOAL	SUGGESTED GUIDELINES	YIELD GOAL	SUGGESTED GUIDELINES	YIELD GOAL	SUGGESTED GUIDELINES		
			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Nitrate	0-6"	35 lb/ac								
	6-24"	33 lb/ac								
	0-24"	68 lb/ac								
Phosphorus	Olsen	8 ppm								
Potassium		184 ppm								
Chloride	0-24"	20 lb/ac								
	0-6"	36 lb/ac								
	6-24"	24 lb/ac								
Sulfur										
Boron		1.8 ppm								
Zinc		0.72 ppm								
Iron		16.8 ppm								
Manganese		1.6 ppm								
Copper		0.94 ppm								
Magnesium		1113 ppm								
Calcium		5027 ppm								
Sodium		27 ppm								
Org.Matter		4.7 %								
Carbonate(CGE)		6.7 %								
Sol. Salts	0-6"	0.52 mmho/cm								
	6-24"	0.36 mmho/cm								
			Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
						% Ca	% Mg	% K	% Na	% H
			0-6" 8.2		35.0 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
			6-24" 8.6			71.8	26.5	1.3	0.3	

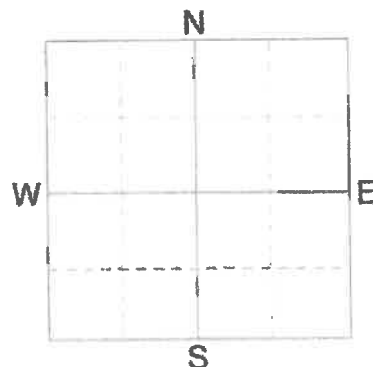
General Comments: Texture is not estimated on high pH soils.



Soil Analysis by Agvise Laboratories  
 (http://www.agvise.com)  
 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID **8**  
 SAMPLE ID  
 FIELD NAME  
 COUNTY  
 TWP **13** RANGE **2E**  
 SECTION **16** QTR. SE ACRES **80**  
 PREV. CROP



#### SUBMITTED FOR:

**Chris Roulin**  
**Box 1923**

**Stonewall, MB**

**RDC 220**

#### SUBMITTED BY: TE0817

**TERRACO-STONEWALL**  
**HIGHWAY 67 WEST**  
**BOX 779**

**STONEWALL, MB**

**RDC 220**

REF # **1983001** BOX # **0**  
 LAB # **NW65626**

Date Sampled

Date Received **09/12/2017**

Date Reported **10/26/2017**

Nutrient In The Soil		Interpretation	1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
		V Low Low Med High	YIELD GOAL		YIELD GOAL		YIELD GOAL			
			SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Nitrate	0-6"	5 lb/ac								
	6-24"	9 lb/ac								
	0-24"	14 lb/ac								
Phosphorus	Olsen	7 ppm								
Potassium		123 ppm								
Chloride	0-24"	24 lb/ac								
	0-6"	120 lb/ac								
	6-24"	360 lb/ac								
Sulfur										
Boron		2.6 ppm								
Zinc		0.50 ppm								
Iron		12.4 ppm								
Manganese		1.6 ppm								
Copper		0.58 ppm								
Magnesium		1435 ppm								
Calcium		4861 ppm								
Sodium		62 ppm								
Org. Matter		4.8 %								
Carbonate(CCE)		6.3 %								
Sol. Salts	0-6"	0.51 mmho/cm								
	6-24"	0.48 mmho/cm								
			Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
						% Ca	% Mg	% K	% Na	% H
			0-6" 8.4		36.8 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
			6-24" 8.6			66.0	32.5	0.9	0.7	

General Comments: Texture is not estimated on high pH soils.

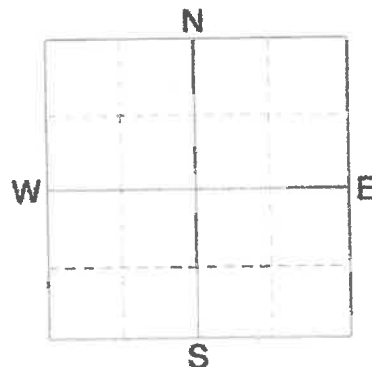




Soil Analysis by Agvise Laboratories  
 (http://www.agvise.com)  
 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID **9**  
 SAMPLE ID  
 FIELD NAME  
 COUNTY  
 TWP **13** RANGE **2E**  
 SECTION **9** QTRSE ACRES **150**  
 PREV. CROP



#### SUBMITTED FOR:

Chris Roulin  
 Box 1923

Stonewall, MB

ROC 220

#### SUBMITTED BY: TE0817

TERRACO-STONEWALL  
 HIGHWAY 67 WEST  
 BOX 779

STONEWALL, MB

ROC 220

REF # **1983002** BOX # **0**  
 LAB # **NW65175**

Date Sampled

Date Received **09/12/2017**

Date Reported **10/26/2017**

Nutrient In The Soil		Interpretation	1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
Depth	Concentration		YIELD GOAL	YIELD GOAL	YIELD GOAL					
Nitrate	0-6" <b>15 lb/ac</b> 6-24" <b>9 lb/ac</b>	*****	SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
	0-24" <b>24 lb/ac</b>		LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
			N		N		N			
Phosphorus	Olsen <b>11 ppm</b>	*****	P <sub>2</sub> O <sub>5</sub>		P <sub>2</sub> O <sub>5</sub>		P <sub>2</sub> O <sub>5</sub>			
Potassium	<b>145 ppm</b>	*****	K <sub>2</sub> O		K <sub>2</sub> O		K <sub>2</sub> O			
Chloride	0-24" <b>20 lb/ac</b>	*****	Cl		Cl		Cl			
Sulfur	0-6" <b>120 +lb/ac</b> 6-24" <b>360 +lb/ac</b>	*****	S		S		S			
Boron	<b>2.4 ppm</b>	*****	B		B		B			
Zinc	<b>0.40 ppm</b>	*****	Zn		Zn		Zn			
Iron	<b>18.0 ppm</b>	*****	Fe		Fe		Fe			
Manganese	<b>1.4 ppm</b>	*****	Mn		Mn		Mn			
Copper	<b>0.92 ppm</b>	*****	Cu		Cu		Cu			
Magnesium	<b>1607 ppm</b>	*****	Mg		Mg		Mg			
Calcium	<b>5403 ppm</b>	*****	Lime		Lime		Lime			
Sodium	<b>93 ppm</b>	*****								
Org.Matter	<b>4.5 %</b>	*****								
Carbonate(CCE)	<b>7.2 %</b>	*****								
	0-6" <b>0.83 mmho/cm</b> 6-24" <b>0.88 mmho/cm</b>	*****	Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
Sol. Salts			0-6" <b>8.2</b> 6-24" <b>8.4</b>		<b>41.2 meq</b>	% Ca	% Mg	% K	% Na	% H
						(65-75) <b>65.6</b>	(15-20) <b>32.5</b>	(1-7) <b>0.9</b>	(0-5) <b>1.0</b>	(0-5)

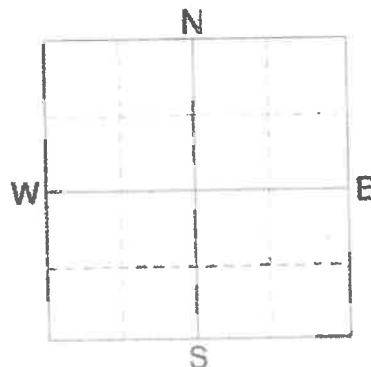
General Comments: Texture is not estimated on high pH soils.



Soil Analysis by Agvise Laboratories  
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 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID **10**  
 SAMPLE ID  
 FIELD NAME  
 COUNTY  
 TWP **13** RANGE **2E**  
 SECTION **8** QTR **NW** ACRES **150**  
 PREV. CROP



#### SUBMITTED FOR:

Chris Roulin  
 Box 1923

Stonewall, MB

RDC 220

#### SUBMITTED BY: TE0817

TERRACO-STONEWALL  
 HIGHWAY 67 WEST  
 BOX 779

STONEWALL, MB

RDC 220

REF # **1982991** BOX # **0**  
 LAB # **NW65822**

Date Sampled

Date Received **09/13/2017**

Date Reported **10/26/2017**

Nutrient In The Soil		Interpretation Very Low Low Med High	1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
Depth	Concentration		YIELD GOAL	SUGGESTED GUIDELINES	YIELD GOAL	SUGGESTED GUIDELINES	YIELD GOAL	SUGGESTED GUIDELINES		
			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Nitrate	0-6"	9 lb/ac								
	6-24"	9 lb/ac								
	0-24"	18 lb/ac								
Phosphorus	Olsen	10 ppm								
Potassium		393 ppm								
Chloride	0-24"	48 lb/ac								
	0-6"	16 lb/ac								
	6-24"	24 lb/ac								
Sulfur										
Boron		1.4 ppm								
Zinc		0.81 ppm								
Iron		18.4 ppm								
Manganese		1.9 ppm								
Copper		1.61 ppm								
Magnesium		1283 ppm								
Calcium		6218 ppm								
Sodium		38 ppm								
Org.Matter		5.2 %								
Carbonate(CCE)		4.1 %								
Sol. Salts	0-6"	0.45 mmho/cm								
	6-24"	0.36 mmho/cm								
			Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			0-6" 8.0		43.0 meq	% Ca	% Mg	% K	% Na	% H
			6-24" 8.3			(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
						72.4	24.9	2.3	0.4	

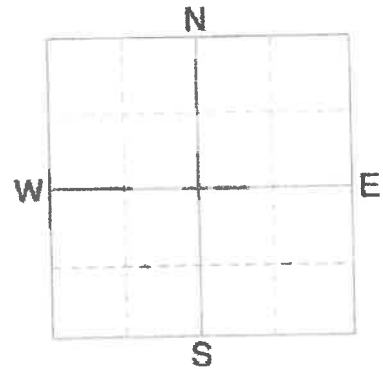
General Comments: Texture is not estimated on high pH soils.



Soil Analysis by Agvise Laboratories  
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 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID **11**  
 SAMPLE ID  
 FIELD NAME  
 COUNTY  
 TWP **13** RANGE **2E**  
 SECTION **15** QTR **NE** ACRES **160**  
 PREV. CROP



#### SUBMITTED FOR:

Chris Roulin  
 Box 1923

Stonewall, MB

RDC 220

#### SUBMITTED BY: TE0817

TERRACO-STONEWALL  
 HIGHWAY 67 WEST  
 BOX 779

STONEWALL, MB

RDC 220

REF # **1982992** BOX # **0**  
 LAB # **NW113944**

Date Sampled

Date Received **10/11/2017**

Date Reported **10/26/2017**

Nutrient In The Soil		Interpretation V.Low Low Med High	1st Crop Choice		2nd Crop Choice		3rd Crop Choice	
Depth	Concentration		YIELD GOAL	SUGGESTED GUIDELINES	YIELD GOAL	SUGGESTED GUIDELINES	YIELD GOAL	SUGGESTED GUIDELINES
			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION
Nitrate	0-6"	12 lb/ac						
	6-24"	27 lb/ac						
	0-24"	39 lb/ac						
Phosphorus	Olsen	11 ppm	P <sub>2</sub> O <sub>5</sub>		P <sub>2</sub> O <sub>5</sub>		P <sub>2</sub> O <sub>5</sub>	
Potassium		110 ppm	K <sub>2</sub> O		K <sub>2</sub> O		K <sub>2</sub> O	
Chloride	0-24"	4972 lb/ac	Cl		Cl		Cl	
Sulfur	0-6"	120 +lb/ac	S		S		S	
	6-24"	360 +lb/ac						
Boron		2.2 ppm	B		B		B	
Zinc		0.40 ppm	Zn		Zn		Zn	
Iron		11.0 ppm	Fe		Fe		Fe	
Manganese		1.8 ppm	Mn		Mn		Mn	
Copper		0.84 ppm	Cu		Cu		Cu	
Magnesium		1731 ppm	Mg		Mg		Mg	
Calcium		4921 ppm						
Sodium		165 ppm						
Org. Matter		4.5 %						
Carbonate(CCE)		11.1 %						
Sol. Salts	0-6"	1.2 mmho/cm						
	6-24"	0.97 mmho/cm						
Soil pH			40.0 meq					
Buffer pH								
			% Base Saturation (Typical Range)					
			% Ca	% Mg	% K	% Na	% H	
			(65-75)	(15-20)	(1-7)	(0-5)	(0-5)	
			61.5	36.0	0.7	1.8		

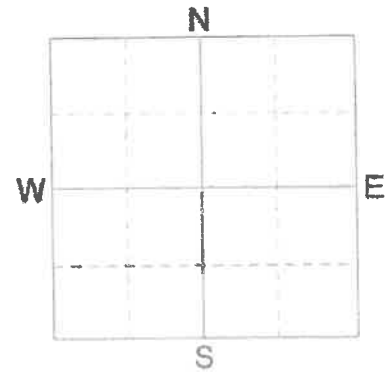
General Comments: Texture is not estimated on high pH soils.



Soil Analysis by Agvise Laboratories  
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 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID **12**  
 SAMPLE ID  
 FIELD NAME  
 COUNTY  
 TWP **13** RANGE **2E**  
 SECTION **17** QTRSW ACRES **55**  
 PREV. CROP **Corn-Grain**



#### SUBMITTED FOR:

Chris Roulin  
 Box 1923

Stonewall, MB

RDC 220

#### SUBMITTED BY: TE0817

TERRACO-STONEWALL  
 HIGHWAY 67 WEST  
 BOX 779

STONEWALL, MB

RDC 220

REF # **1982993** BOX # **0**  
 LAB # **NW168833**

Date Sampled

Date Received **10/27/2017**

Date Reported **11/1/2017**

Nutrient In The Soil		Interpretation	1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
		ULow Low Med High	Canola-bu		Canola-bu		Canola-bu			
			YIELD GOAL		YIELD GOAL		YIELD GOAL			
			50 BU		60 BU		65 BU			
			SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
			Band		Band		Band			
			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Nitrate	0-6" 6-24" 32 lb/ac 66 lb/ac		N	77	N	112	N	130		
Phosphorus	Olsen 12 ppm		P <sub>2</sub> O <sub>5</sub>	33 Band *	P <sub>2</sub> O <sub>5</sub>	39 Band *	P <sub>2</sub> O <sub>5</sub>	42 Band *		
Potassium	385 ppm		K <sub>2</sub> O	0	K <sub>2</sub> O	0	K <sub>2</sub> O	0		
Chloride	0-24" 48 lb/ac		Cl	Not Available	Cl	Not Available	Cl	Not Available		
Sulfur	0-6" 6-24" 26 lb/ac 48 lb/ac		S	15 Band	S	15 Band	S	15 Band		
Boron	1.5 ppm		B	0	B	0	B	0		
Zinc	1.20 ppm		Zn	0	Zn	0	Zn	0		
Iron	14.1 ppm		Fe	0	Fe	0	Fe	0		
Manganese	2.0 ppm		Mn	0	Mn	0	Mn	0		
Copper	1.32 ppm		Cu	0	Cu	0	Cu	0		
Magnesium	1043 ppm		Mg	0	Mg	0	Mg	0		
Calcium	6403 ppm		Lime		Lime		Lime			
Sodium	50 ppm									
Org. Matter	5.9 %									
Carbonate(CCE)	3.2 %		Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
						% Ca	% Mg	% K	% Na	% H
			0-6" 7.8		41.9 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
			6-24" 8.1			76.4	20.7	2.4	0.5	
Sol. Salts	0-6" 6-24" 0.56 mmho/cm 0.57 mmho/cm									

General Comments: Texture is not estimated on high pH soils.  
 Crop 1: \*\* Chloride yield data is limited for this crop. \* Caution: Seed Placed Fertilizer Can Cause Injury \* Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 45 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.  
 Crop 2: \*\* Chloride yield data is limited for this crop. \* Caution: Seed Placed Fertilizer Can Cause Injury \* Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.  
 Crop 3: \*\* Chloride yield data is limited for this crop. \* Caution: Seed Placed Fertilizer Can Cause Injury \* Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 59 K2O = 29 AGVISE Band guidelines will build P & K test levels to the medium range over many years.


## MMPP - Variety Yield Data Browser

### Select Municipalities or MASC Risk Areas

**Tip:** Click or touch the 'X' (at right) in these tip balloons to hide them permanently. ✕

**Tip:** Click or touch the button below to select Municipalities or MASC Risk Areas. ✕

Municipalities

**Tip:** Click or touch in the select boxes (below) to select at least one item from each list. Click ✕ or touch the  icon to clear all selected items.

ROCKWOOD



### Select Crop(s)

**Tip:** If more than one crop is selected, the Yield Variety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield' charts won't be generated. ✕

ALFALFA



### Select Varieties

All Varieties



### Select Year Range



1993

1998

2003

2007

2012

2017

**2008**

**to**

**2017**

## Search Summary

**42 records returned**

**196** farm varieties grown on **15,484.0** acres

### Average Yield

**1.696** Tonnes ( **1.869** Tons ) per acre

*Summary includes aggregate data from 'below minimum tolerance' records*

## Variety Yield Data

'Below Minimum Tolerance' records contain data from fewer than 3 producers or 500 acres, marked as such to retain producer anonymity. Data from these records is included in the Search Summary totals.

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Showing 1 to 42 of 42 entries

First

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Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)
+ 2008	ROCKWOOD	ALFALFA	NO VAR	19	1,918.0	2.735 Tonnes
+ 2010	ROCKWOOD	ALFALFA	NO VAR	14	1,295.0	2.387 Tonnes
+ 2009	ROCKWOOD	ALFALFA	NO VAR	17	1,481.0	2.103 Tonnes
+ 2012	ROCKWOOD	ALFALFA	NO VAR	13	1,013.0	1.768 Tonnes
+ 2014	ROCKWOOD	ALFALFA	NO VAR	17	1,136.0	1.704 Tonnes
+ 2015	ROCKWOOD	ALFALFA	NO VAR	14	1,022.0	1.624 Tonnes
+ 2011	ROCKWOOD	ALFALFA	NO VAR	13	1,218.0	1.503 Tonnes
+ 2017	ROCKWOOD	ALFALFA	NO VAR	12	843.0	1.425 Tonnes
+ 2016	ROCKWOOD	ALFALFA	NO VAR	15	1,262.0	1.064 Tonnes
+ 2013	ROCKWOOD	ALFALFA	NO VAR	14	1,266.0	0.954 Tonnes
+ 2008	ROCKWOOD	ALFALFA	ALGONQUIN	Below	Minimum	Tolerance


## MMPP - Variety Yield Data Browser

### Select Municipalities or MASC Risk Areas

**Tip:** Click or touch the 'X' (at right) in these tip balloons to hide them permanently. ✕

**Tip:** Click or touch the button below to select Municipalities or MASC Risk Areas. ✕

Municipalities

**Tip:** Click or touch in the select boxes (below) to select at least one item from each list. Click ✕ or touch the  icon to clear all selected items.

ROCKWOOD



### Select Crop(s)

**Tip:** If more than one crop is selected, the Yield Variety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield' charts won't be generated. ✕

BARLEY



### Select Varieties

All Varieties



### Select Year Range





1993

1998

2003

2007

2012

2017

**2008**

**to**

**2017**

## Search Summary

**82 records returned**

**321** farm varieties grown on **64,244.0** acres

### Average Yield

**1.357** Tonnes ( **62.3** Bushels ) per acre

*Summary includes aggregate data from 'below minimum tolerance' records*

## Variety Yield Data

'Below Minimum Tolerance' records contain data from fewer than 3 producers or 500 acres, marked as such to retain producer anonymity. Data from these records is included in the Search Summary totals.

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First Previous Next Last

Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)
+ 2017	ROCKWOOD	BARLEY	CDC AUSTENSON (TR06389)	4	2,053.0	2.441 Tonnes
+ 2013	ROCKWOOD	BARLEY	CONLON	8	2,764.0	2.008 Tonnes
+ 2017	ROCKWOOD	BARLEY	CONLON	4	1,326.0	2.005 Tonnes
+ 2015	ROCKWOOD	BARLEY	TRADITION (BT 954)	5	500.0	1.762 Tonnes
+ 2013	ROCKWOOD	BARLEY	CDC AUSTENSON (TR06389)	6	873.0	1.749 Tonnes
+ 2016	ROCKWOOD	BARLEY	CDC AUSTENSON (TR06389)	8	2,201.0	1.744 Tonnes
+ 2008	ROCKWOOD	BARLEY	AC METCALFE (TR 232)	8	1,100.0	1.659 Tonnes
+ 2009	ROCKWOOD	BARLEY	CONLON	14	4,502.0	1.636 Tonnes
+ 2008	ROCKWOOD	BARLEY	CONLON	19	5,561.0	1.618 Tonnes


## MMPP - Variety Yield Data Browser

### Select Municipalities or MASC Risk Areas

**Tip:** Click or touch the 'X' (at right) in these tip balloons to hide them permanently. ✕

**Tip:** Click or touch the button below to select Municipalities or MASC Risk Areas. ✕

Municipalities

**Tip:** Click or touch in the select boxes (below) to select at least one item from each list. Click ✕ or touch the  icon to clear all selected items.

ROCKWOOD



### Select Crop(s)

**Tip:** If more than one crop is selected, the Yield Variety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield' charts won't be generated. ✕

ARGENTINE CANOLA



### Select Varieties

All Varieties



### Select Year Range



1993

1998

2003

2007

2012

2017

**2008**

**to**

**2017**

## Search Summary

**278 records returned**

**1,394** farm varieties grown on **278,599.0** acres

### Average Yield

**0.762** Tonnes ( **33.6** Bushels ) per acre

*Summary includes aggregate data from 'below minimum tolerance' records*

## Variety Yield Data

'Below Minimum Tolerance' records contain data from fewer than 3 producers or 500 acres, marked as such to retain producer anonymity. Data from these records is included in the Search Summary totals.

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Showing 1 to 50 of 278 entries

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Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)
+ 2013	ROCKWOOD	ARGENTINE CANOLA	5440 (INVIGOR)  PHS04-690  (LT)	9	2,672.0	1.208 Tonnes
+ 2017	ROCKWOOD	ARGENTINE CANOLA	L233P (BAYER)  5CN0130  (LT)	15	2,831.0	1.202 Tonnes
+ 2017	ROCKWOOD	ARGENTINE CANOLA	L252 (INVIGOR) (LT)	26	5,770.0	1.196 Tonnes
+ 2013	ROCKWOOD	ARGENTINE CANOLA	L130 (INVIGOR) (LT)	18	4,002.0	1.163 Tonnes
+ 2017	ROCKWOOD	ARGENTINE CANOLA	L140P (INVIGOR) (LT)	21	5,931.0	1.148 Tonnes
+ 2013	ROCKWOOD	ARGENTINE CANOLA	L154 (INVIGOR) (LT)	17	3,712.0	1.127 Tonnes
+ 2017	ROCKWOOD	ARGENTINE CANOLA	L230 (BAYER) 5CN0125 (LT)	4	1,724.0	1.097 Tonnes


## MMPP - Variety Yield Data Browser

### Select Municipalities or MASC Risk Areas

**Tip:** Click or touch the 'X' (at right) in these tip balloons to hide them permanently. ✕

**Tip:** Click or touch the button below to select Municipalities or MASC Risk Areas. ✕

Municipalities

**Tip:** Click or touch in the select boxes (below) to select at least one item from each list. Click ✕ or touch the  icon to clear all selected items.

ROCKWOOD



### Select Crop(s)

**Tip:** If more than one crop is selected, the Yield Variety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield' charts won't be generated. ✕

GRAIN CORN



### Select Varieties

All Varieties



### Select Year Range



1993

1998

2003

2007

2012

2017

**2008**

**to**

**2017**

## Search Summary

### 49 records returned

70 farm varieties grown on 10,456.0 acres

### Average Yield

3.188 Tonnes ( 125.5 Bushels ) per acre

*Summary includes aggregate data from 'below minimum tolerance' records*

## Variety Yield Data

'Below Minimum Tolerance' records contain data from fewer than 3 producers or 500 acres, marked as such to retain producer anonymity. Data from these records is included in the Search Summary totals.

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Showing 1 to 49 of 49 entries

First Previous Next Last

Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)
+ 2017	ROCKWOOD	GRAIN CORN	MZ 1340DBR (MAIZEX) (RIB)	3	509.0	3.636 Tonnes
+ 2017	ROCKWOOD	GRAIN CORN	P7211HR (PIONEER)	5	1,030.0	3.346 Tonnes
+ 2013	ROCKWOOD	GRAIN CORN	P7443R (PIONEER) (RT)	3	1,010.0	2.785 Tonnes
+ 2008	ROCKWOOD	GRAIN CORN	LR 9875R (LEGEND) (RT)	Below	Minimum	Tolerance
+ 2008	ROCKWOOD	GRAIN CORN	39M26 (PIONEER) (RT)	Below	Minimum	Tolerance
+ 2009	ROCKWOOD	GRAIN CORN	39B64 (PIONEER) (RT)	Below	Minimum	Tolerance
+ 2010	ROCKWOOD	GRAIN CORN	PS 2230 RR (PICKSEED) (RT)	Below	Minimum	Tolerance




## MMPP - Variety Yield Data Browser

### Select Municipalities or MASC Risk Areas

**Tip:** Click or touch the 'X' (at right) in these tip balloons to hide them permanently. ✕

**Tip:** Click or touch the button below to select Municipalities or MASC Risk Areas. ✕

Municipalities

**Tip:** Click or touch in the select boxes (below) to select at least one item from each list. Click ✕ or touch the  icon to clear all selected items.

ROCKWOOD



### Select Crop(s)

**Tip:** If more than one crop is selected, the Yield Variety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield' charts won't be generated. ✕

GRASSES



### Select Varieties

All Varieties



### Select Year Range



1993

1998

2003

2007

2012

2017

**2008**

**to**

**2017**

## Search Summary

**69 records returned**

**281** farm varieties grown on **17,666.0** acres

### Average Yield

**1.038** Tonnes ( **1.144** Tons ) per acre

*Summary includes aggregate data from 'below minimum tolerance' records*

## Variety Yield Data

'Below Minimum Tolerance' records contain data from fewer than 3 producers or 500 acres, marked as such to retain producer anonymity. Data from these records is included in the Search Summary totals.

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Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)
+ 2016	ROCKWOOD	GRASSES	NO VAR (TIMOTHY)	8	503.0	1.223 Tonnes
+ 2014	ROCKWOOD	GRASSES	NO VAR (TIMOTHY)	9	583.0	1.145 Tonnes
+ 2014	ROCKWOOD	GRASSES	NO VAR	18	1,325.0	1.097 Tonnes
+ 2010	ROCKWOOD	GRASSES	NO VAR	12	615.0	0.970 Tonnes
+ 2015	ROCKWOOD	GRASSES	NO VAR	18	1,321.0	0.946 Tonnes
+ 2017	ROCKWOOD	GRASSES	NO VAR	14	774.0	0.834 Tonnes
+ 2011	ROCKWOOD	GRASSES	NO VAR	15	1,026.0	0.714 Tonnes
+ 2012	ROCKWOOD	GRASSES	NO VAR	16	1,040.0	0.655 Tonnes
+ 2016	ROCKWOOD	GRASSES	NO VAR	18	1,239.0	0.643 Tonnes
+ 2013	ROCKWOOD	GRASSES	NO VAR	16	1,021.0	0.488 Tonnes
+ 2008	ROCKWOOD	GRASSES	NO VAR	Below	Minimum	Tolerance


## MMPP - Variety Yield Data Browser

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Municipalities

**Tip:** Click or touch in the select boxes (below) to select at least one item from each list. Click ✕ or touch the  icon to clear all selected items.

ROCKWOOD



### Select Crop(s)

**Tip:** If more than one crop is selected, the Yield Variety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield' charts won't be generated. ✕

SILAGE CORN



### Select Varieties

All Varieties



### Select Year Range



1993

1998

2003

2007

2012

2017

**2008**

**to**

**2017**

## Search Summary

**60 records returned**

**63** farm varieties grown on **4,581.0** acres

### Average Yield

**12.670** Tonnes ( **13.963** Tons ) per acre

*Summary includes aggregate data from 'below minimum tolerance' records*

## Variety Yield Data

'Below Minimum Tolerance' records contain data from fewer than 3 producers or 500 acres, marked as such to retain producer anonymity. Data from these records is included in the Search Summary totals.

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Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)
+ 2008	ROCKWOOD	SILAGE CORN	AMAIZING GRACE (BALDRIDGE)	Below	Minimum	Tolerance
+ 2008	ROCKWOOD	SILAGE CORN	HL 2240 (HYLAND)	Below	Minimum	Tolerance
+ 2008	ROCKWOOD	SILAGE CORN	PICKSEED 2270	Below	Minimum	Tolerance
+ 2008	ROCKWOOD	SILAGE CORN	PIONEER 38B11(BT) (LT)	Below	Minimum	Tolerance
+ 2008	ROCKWOOD	SILAGE CORN	PS2601RR (PICKSEED) (RT)	Below	Minimum	Tolerance
+ 2008	ROCKWOOD	SILAGE CORN	39B94 (PIONEER) (BT) (LT)(RT)	Below	Minimum	Tolerance
+ 2008	ROCKWOOD	SILAGE CORN	39F57 (PIONEER) (RT)	Below	Minimum	Tolerance


## MMPP - Variety Yield Data Browser

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Municipalities

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ROCKWOOD



### Select Crop(s)

**Tip:** If more than one crop is selected, the Yield Variety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield' charts won't be generated. ✕

SOYBEANS



### Select Varieties

All Varieties



### Select Year Range



1993

1998

2003

2007

2012

2017

**2008**

**to**

**2017**



## Search Summary

**265 records returned**

**1,089** farm varieties grown on **227,016.0** acres

### Average Yield

**0.914** Tonnes ( **33.6** Bushels ) per acre

*Summary includes aggregate data from 'below minimum tolerance' records*

## Variety Yield Data

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Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)
+ 2016	ROCKWOOD	SOYBEANS	P008T22R2 (PIONEER) (RT)	4	556.0	1.290 Tonnes
+ 2012	ROCKWOOD	SOYBEANS	TH 32004R2Y (THUNDER) (RT)	6	638.0	1.172 Tonnes
+ 2013	ROCKWOOD	SOYBEANS	VITO R2 (PROGRAIN) (RT)	3	639.0	1.170 Tonnes
+ 2015	ROCKWOOD	SOYBEANS	TH 33005R2Y (THUNDER) (RT)	7	911.0	1.171 Tonnes
+ 2016	ROCKWOOD	SOYBEANS	24-10RY (DEKALB) (RT)	4	1,233.0	1.156 Tonnes
+ 2016	ROCKWOOD	SOYBEANS	NSC RESTON RR2Y (NSGENETICS) (RT)	4	1,033.0	1.151 Tonnes
+ 2015	ROCKWOOD	SOYBEANS	NSC RESTON RR2Y (NSGENETICS) (RT)	5	1,888.0	1.141 Tonnes
+ 2016	ROCKWOOD	SOYBEANS	TH 33005R2Y (THUNDER) (RT)	5	1,157.0	1.127 Tonnes


## MMPP - Variety Yield Data Browser

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Municipalities

**Tip:** Click or touch in the select boxes (below) to select at least one item from each list. Click ✕ or touch the  icon to clear all selected items.

ROCKWOOD



### Select Crop(s)

**Tip:** If more than one crop is selected, the Yield Variety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield' charts won't be generated. ✕

RED SPRING WHEAT



### Select Varieties

All Varieties



### Select Year Range



1993

1998

2003

2007

2012

2017

**2008**

**to**

**2017**

## Search Summary

**82 records returned**

**846** farm varieties grown on **195,440.0** acres

### Average Yield

**1.411** Tonnes ( **51.8** Bushels ) per acre

*Summary includes aggregate data from 'below minimum tolerance' records*

## Variety Yield Data

'Below Minimum Tolerance' records contain data from fewer than 3 producers or 500 acres, marked as such to retain producer anonymity. Data from these records is included in the Search Summary totals.

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Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)
+ 2017	ROCKWOOD	RED SPRING WHEAT	AAC BRANDON (BW 932)	49	19,701.0	2.024 Tonnes
+ 2017	ROCKWOOD	RED SPRING WHEAT	CARDALE (BW429)	15	3,159.0	2.024 Tonnes
+ 2017	ROCKWOOD	RED SPRING WHEAT	AAC ELIE(BW931)	9	1,937.0	1.968 Tonnes
+ 2013	ROCKWOOD	RED SPRING WHEAT	GLENN	15	7,083.0	1.961 Tonnes
+ 2017	ROCKWOOD	RED SPRING WHEAT	CARBERRY (BW874)	7	1,657.0	1.857 Tonnes
+ 2013	ROCKWOOD	RED SPRING WHEAT	CARBERRY (BW874)	47	11,796.0	1.793 Tonnes
+ 2013	ROCKWOOD	RED SPRING WHEAT	KANE (BW342)	16	1,602.0	1.638 Tonnes