### SITE ASSESSMENT

### For Large Livestock Operation Proposals (300 Animal Units or more)

### 1.0 Purpose

The set up, or expansion, of a livestock operation that has 300 Animal Units or more is subject to Part 7 of The Planning Act. This includes consideration as a conditional use by the municipal council or planning district board. It also includes a review by the Technical Review Committee (TRC) appointed by the Minister of Local Government. The Technical Review Committee Regulation requires a site assessment to help the committee do its review and allow people who will be affected by the livestock operation to comment on the proposal.

### 2.0 Assistance

For assistance in completing the Site Assessment Form please refer to the following.

For links to resources, click on the highlighted underlined items.

For additional information on a particular item, please click on the (?) "Learn More" icon.

For definitions, click on the Glossary of Terms.

For help with mapping, contact your <u>Community and Regional Planning Regional</u> Office.

For additional help, contact the Technical Review Coordination Unit.

3.0 Description of Livestock Operation
Operation legal name, if other than the owner's name:
Lactaria Holsteins Ltd
Operation location (project site): W1/2 of 7-7-8E
Rural Municipality (RM) of Ste Anne
Legal description: section, township, range or river lot(s)  W1/2 of 7-7-8E
Manitoba Premises Identification Number: MB1026028
Municipal tax roll number(s): 4000 +4100
Show the location of the operation (project site) on a location map. (See <u>Location Map</u> for example).
X Location Map attached

No. 82



SCALE IN ICLOMETRES

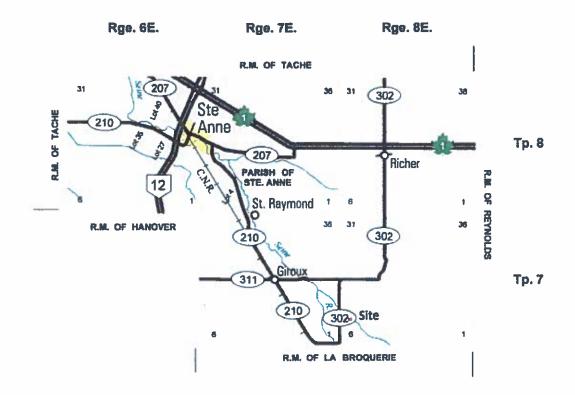
### R.M. OF STE. ANNE

MAP REVISED:-

MANITOBA
TRANSPORTATION AND GOVERNMENT SERVICES
HIGHWAY PLANNING AND DESIGN BRANCH
DRAFTING SECTION
WINNIPEG
MARCH. 2003

### LEGEND





4.0 Nature of Project ?								
☐ New operation								
Expansion of existing o	peration							
State if any existing building reused or expanded, state how	s will be replaced or demolishe w they will be reused or expand	d. If existing buildings will be led.						
Portions of existing build	dings will be removed and	replaced with more						
modern facilities								
5.0 Proposed Type and Size State the proposed type and s	of Operation ? ize of the operation. (See Anim	nal Units Calculation Table.)						
Type of operation	Existing number of	Total Animal Units						
(Column B from Animal Units Calculation Table)  animals (Column F from Animal Units Calculation Table)								
Units Calculation Table)								
Dairy cows								
Proposed: 270 mature cows								
	240 replacement stock	503 a.u (proposed)						
Animal Units Calculation  6.0 Animal Confinement Fa	Table attached (existing and separate p	d proposed inventories on age vs. non-traditional herd						
Outdoor Confined Livestoc	k Area							
required for construction and Animal Units or more. Permi	in a way that the environment is expansion of confined livestor its are required by the Livestock IR 42/98), under <i>The Environm</i>	k areas for operations with 300 Manure and Mortalities						
Confined Livestock Area:	outdoor seasonal feeding area	feedlot 🗓 not applicable						
Indoor Barn/Animal Housin	ng							
Indoor Animal Housing: X b	am other (describe)	not applicable						

### **Animal Units Calculation Table**

Α	8	С	D	E	F	G
Animal Type	Type of Operation	Existing Number of Animals	Proposed Additional Number of Animals	Animal Units per Head	Total Animal Units	Annual Confineme nt Period (Days)
<del></del>	Mature cows (lactating and dry) including associate	149		2	298	
	Mature cows (lactating and dry)			1.35	0	
	Heifers (0 to 3 months)			0.16	0	
Dairy 1	Heifers (4 to 13 months)			0.41	0	
	Heifers (> 13 months)			0.87	0	
	Bulls			1.35	0	
	Veal calves			0.13	0	
<del></del>	Beef cows including associated livestock			1,25	0	
Doof	Backgrounder			0.5	0	
Beef	Summer pasture / replacement heifers			0.625	0	
	Feeder cattle			0.769	0	
	Sows - farrow to finish (234-254 lbs)			1.25	0	
	Sows - farrow to weanling (up to 11 lbs)			0.25	0	M
P1	Sows - farrow to nursery (51 lbs)			0.313	0	
Pigs	Boars (artificial insemination units)			0.2	0	
	Weanlings, Nursery (11-51 lbs)			0.033		
	Growers / Finishers (51-249 lbs)			0.143	0	
	Broilers			0.005	0	-
	Roasters			0.01	Ö	
Dhinks	Layers			0.0083	0	
Chickens	Pullets			0.0033	0	
	Broiler breeder pullets			0.0033	0	
	Broiler breeder hens			0.01	0	
	Broilers			0.01	0	
Turkeys	Heavy Toms			0.02	0	
	Heavy Hens			0.01	0	
Horses	Mares			1.333	0	
Sheep	Ewes			0.2	0	
aneeb	Feeder lambs			0.063	0	
as I hias	Type:				0	Lu =
er Livest	Type:				0	
				Total		
		Ev	ISTING	AUs	298	

### Footnotes:

<sup>&</sup>lt;sup>1</sup> There are 2 methods for calculating animal units for dairy (Farm Practices Guidelines for Dairy Producers in

### **Animal Units Calculation Table**

A	В	С	D	E	F	G
Animal Type	Type of Operation	Existing Number of Animals	Proposed Additional Number of Animals	Animal Units per Head	Total Animal Units	Annual Confineme nt Period (Days)
	Mature cows (lactating and dry) including associate	ed livestock		2	0	10.00
	Mature cows (lactating and dry)		270	1.35	365	***
	Heifers (0 to 3 months)		60	0.16	10	
Dairy 1	Heifers (4 to 13 months)		60	0.41	25	
Ĭ	Heifers (> 13 months)	1	120	0.87	104	
	Bulls			1.35	0	
	Veal caives			0.13	0	
	Beef cows including associated livestock			1.25	0	
	Backgrounder			0.5	0	
Deel	Summer pasture / replacement heifers			0.625	0	
	Feeder cattle			0.769	0	E WHITE
-	Sows - farrow to finish (234-254 lbs)		The second state of	1.25	0	
Ī	Sows - farrow to weanling (up to 11 lbs)	estably		0.25	0	
Pigs	Sows - farrow to nursery (51 lbs)		1-10	0.313	0	
Ligs	Boars (artificial insemination units)			0.2	0	
	Weanlings, Nursery (11-51 lbs)			0.033		
	Growers / Finishers (51-249 lbs)			0.143	0	
Section 1	Broilers			0.005	0	
	Roasters		***	0.01	0	
hickens	Layers			0.0083	0	
HICKERS	Pullets			0.0033	0	
	Broiler breeder pullets			0.0033	0	
	Broiler breeder hens			0.01	0	
	Broilers			0.01	0	
<b>Furkeys</b>	Heavy Toms			0.02	0	
	Heavy Hens			0.01	0	
Horses				1.333	0	
	Ewes			0.2	0	
Sheep	Feeder lambs			0.063	0	
	Type:				0	
er Livest	Type:				0	
				Total		
				AUs		

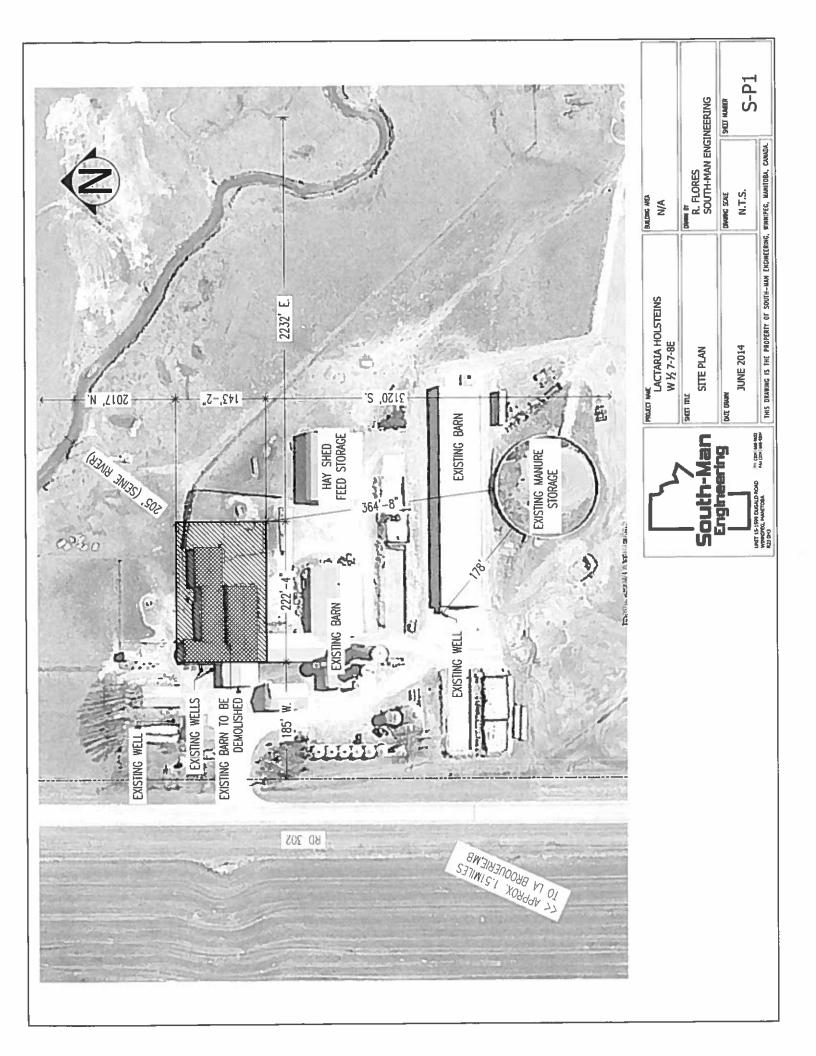
### Footnotes:

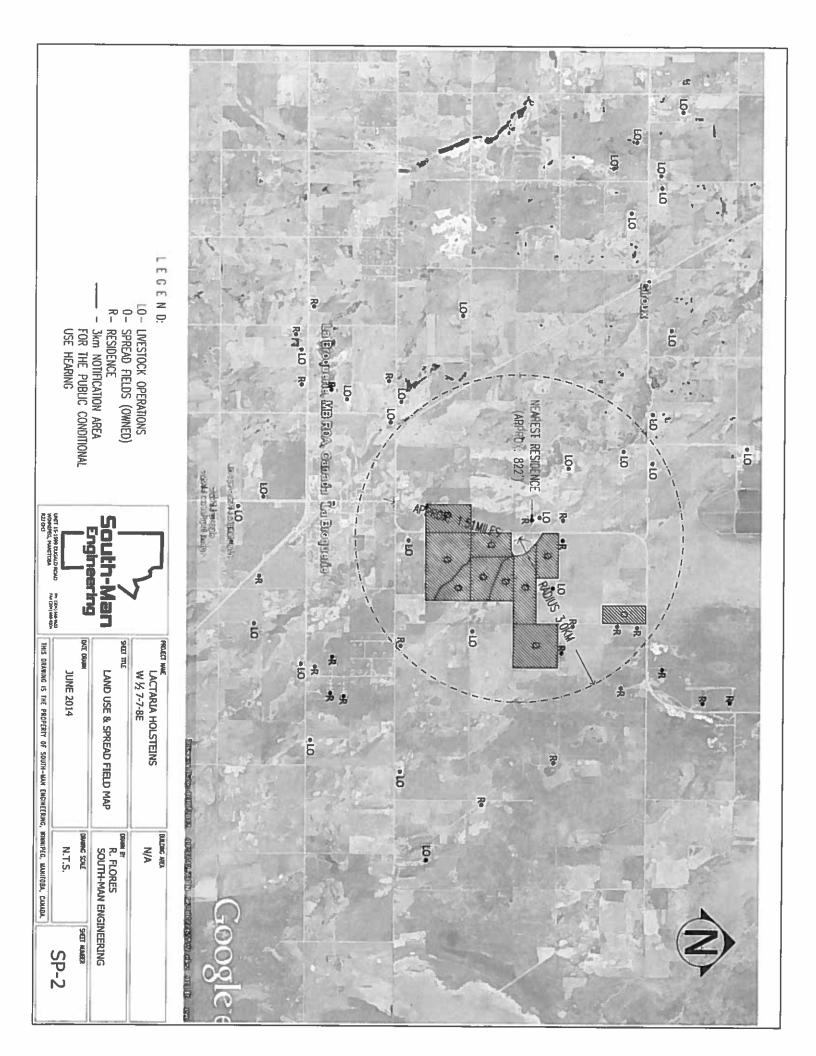
<sup>&</sup>lt;sup>1</sup> There are 2 methods for calculating animal units for dairy (Farm Practices Guidelines for Dairy Producers in

A permit under the Livestock Manure and Mortalities Management Regulation is not required for an indoor housing area or barn unless there is a manure storage facility within the building (an under barn storage capable of storing manure for 30 days or more).

Show all existing, proposed buildings and additions to existing buildings on the project site plan. See <u>Project Site Plan example</u> and the Project <u>Site Plan Guide</u> for help creating your site plan.

Project Site Plan attached





7.0 Environmental Farm Planning

Environmental farm planning is a voluntary, confidential self-assessment process designed to help farm managers identify the environmental strengths and weaknesses of their operations.

Do you have an Environmental Farm Plan X yes on no

If so, is it current (completed within past 5 years) X yes no

### 8.0 Water

### **Project Sites Unsuitable for Development**

To protect water quality, the <u>Nutrient Management Regulation</u> (MR 62/2008), under *The Water Protection Act*, prohibits the set up or expansion of nutrient generating facilities in Nutrient Management Zone 4 (Agriculture Capability Class 6, 7 and unimproved organic soils) and Nutrient Buffer Zones. Nutrient generating facilities include barns, confined livestock areas and manure storage facilities.

<u>Nutrient Buffer Zone</u> as defined in section 3(3) of the regulation includes areas of land along water bodies such as rivers, lakes, streams and drains.

The proposed indoor housing area, barn, confined livestock area and/or manure storage facility:

will 🔲 will not 🗶

be located within Nutrient Management Zone 4 (Class 6, 7 and unimproved organic soils) or any Nutrient Buffer Zone.

Determine the agriculture capability class(es) of the project site, and its limitations. This information is available from Manitoba Agriculture, Food and Rural Initiatives (MAFRI) at 204-945-3869 in Winnipeg. Alternatively, operations with GIS mapping software can access information through Manitoba Land Initiative (MLI) website. In addition, information from MLI can also be viewed on Google Earth. Both the download for Google Earth and the registration for MLI are free. Click here for instructions under the MLI website.

### Water Source



To be sustainable, a livestock operation must have access to a sufficient quantity and quality of water for livestock.

Water source for operation:		
	pipeline (public)	water co-operative
	proposed well	X existing well
	river	lake
	dugout (dimension	s:x)

If using an existing well, provide a copy of the water well log and logs for other wells on the property. Logs can be obtained from Manitoba Conservation and Water Stewardship by calling (204) 945-7418 in Winnipeg; 1-800-214-6497 toll free.

### Source Water Analysis Reports

Annual livestock source water monitoring analysis reports must be submitted to Manitoba Conservation and Water Stewardship for any operations of 300 Animal Units or more.
If an existing livestock operation of 300 Animal Units or more, have you submitted an annual source water monitoring report for the current calendar year?   yes  xno  *(annual water analysis report submitted annually to Dairy Farmers of Manitoba)
Will livestock have direct access to surface water (not including dugouts)?   yes   no
If yes, identify: Name of the surface water feature:
List any steps that will be taken to prevent direct access of livestock to the water body.
Water Requirements
Protecting the interests of domestic users and the environment, in addition to existing licensees, is the intended purpose of the water rights licensing scheme.
In order to protect the sustainability of water sources, all operations using more than 25,000 litres (5,499 imperial gallons) per day must possess a Water Rights Licence required by the Water Rights Regulation (MR 126/87) under The Water Rights Act.
For more information on the Water Rights Licensing process, contact the Water Use Licensing Section at (204) 945-3983 in Winnipeg; 1-800-214-6497 toll free.
Water Use ? To calculate the total water use, go to the Water Requirement Calculation Table.
Maximum daily use: 9720 X imperial gallons or litres  Maximum annual use: 3,547,800 acre-feet or cubic decameters
Water Requirement Calculation Table attached
Groundwater (Contamination Risk Protection)
Improper storage and handling of manure or mortalities increases the risk of contaminating groundwater. Beneficial management practices (BMP), mitigation measures and requirements for the permit process reduce this risk. Soil testing, manure management planning and proper engineering, along with construction and management of manure storage structures reduce the risk of contaminating groundwater.

### Water Requirement Calculation Table

Livestock	Number	iG/day per animal in winter	IG/day per animal in summer	IG/day (Imperial gations per day)
Beef/Dairy/Bison			1	
Feeder/heifer/steer (600 lb.)	240	5	9	2160
Feeder (900 lb.)		7	12	-
Feeder (1250 lb.)		10	15	-
Cow/calf pair		12	15	-
Dry cow	30	10	12	360
Milking cow	240	25	30	7200
Bison		88	10	
Horses				
Horses		8	11	
Hogs				
Sow (Farrow/wean)		6.	5	
Drv Sow/Boar		4		_
Feeder		3		
Nursery (33 lb.)		2		-
Chickens				
Broilers		0.0		•
Roasters/Pullets		0.0		_
Lavers		0.0		_
Breeders		0.0	)7	-
Turkevs				
Turkey Growers		0.1		-
Turkev Heavies		0.1	6	
Sheen/Goats			2 0	
Sheen/Goats		2		-
Ewes/Does	10-	3		_
Lambs/Kids (90 lb.)		1.		_
		TOTAL	IG/day)	9720

For beef, dairy, bison and horse enterprises:

Use summer numbers if appropriate for the operation.

Otherwise base projections on winter values.

Always use the greater of the two values.

Enter this number on page 7 of Application Form.

### Other consumption values:

Normal household consumption: 40-55 IG/day per person or (180-250 I/day/person)

> Hydrant flow: 10 imperial GPM (45 l/min)

Unit Conversions								
Total per day	Total per year	Unit						
9720	3547800	IG						
44187.12	16128298.8	litres						
44.18712	16128.2988	cubic						
		decametres						
		(dam <sup>3</sup> )						

Enter this number on page 7 of Application Form.

\_\_\_

Conversion Factor: 1 IGPM = 4.546 I/m

Check off the mitigation measures used for the existing components of the operation that may pose a risk of contamination. Also check off any measures that may be used with the proposed components for this expansion, if applicable:

	Existing	Proposed
Manure is stored in a storage facility built by permit or registered by Manitoba Conservation and Water Stewardship Storage includes leachate collection Earthen storage has between 400 and 500 days storage Steel/concrete tank has between 250 and 500 days storage Manure storage facility meets required setbacks Field storage (solid manure) locations are changed annually Field storage meets required setbacks All application fields are soil tested annually for nitrate-N and Olsen phosphorus All manure is applied according to a manure management plan Licensed commercial manure applicator is used to apply manure Abandoned wells have been properly sealed		(total b/w all tanks/pits)  (total b/w all tanks/pits)  X  X  X  U  H/A
Other:		

### **Building in Flood Areas**

The <u>Livestock Manure and Mortalities Management Regulation</u> prohibits an operator from putting a manure storage facility within the boundaries of the 100-year flood plain elevation. <u>Manure storage facilities</u> that are constructed with protection for a flood-water level at least 0.6 meters higher than the 100-year flood water level are exempt.

The <u>Designated Flood Area Regulation</u> under *The Water Resources Administration Act* requires a Designated Flood Area Permit before a proposed structure (such as a barn) can be built within a Designated Flood Area.

The flood protection level for structures located within a Designated Flood Area is the site specific design flood level plus freeboard, as provided by the Hydraulic Forecasting Branch of Manitoba Infrastructure and Transportation. Contact the Hydrologic Forecasting Branch at (204) 945-2121 in Winnipeg; 1-800-214-6497 toll free.

The proposed site:
is is not X

located in a Designated Flood Area: Red River Valley Designated Flood Area or Lower Red River Designated Flood Area

Note: At the time a permit is issued, verification is needed to ensure any proposed structure(s) are located within the 100-year flood plain elevation; or at an elevation set by Manitoba Infrastructure and Transportation.

Watershed Management Planning

Integrated watershed management planning is a co-operative effort by local residents, stakeholders and governments to create a long term plan to manage water and land-based activities for watersheds.

What are the names of the <u>watershed</u> and <u>sub-watershed</u> where the livestock operation and the fields identified for manure application are located?

Name of watershed(s): Red River Basin

Name of sub-watershed(s):Seine River Watershed

Name of <u>Integrated Watershed Management Plan</u> for the proposed project site, if applicable: <u>Seine River Integrated Water Management Plan</u>

For more on Integrated Watershed Management Planning, call Watershed Planning and Programs at (204) 945-7408 in Winnipeg; 1-800-214-6497 toll free.

### 9.0 Manure

The <u>Livestock Manure and Mortalities Management Regulation</u> sets requirements for the use, management and storage of livestock manure in agricultural operations, to ensure it is handled in an environmentally sound manner. For more information on this, call Manitoba Conservation and Water Stewardship at (204) 619-2230 in Winnipeg.

Improper storage, handling and/or land application of manure can contaminate water and/or cause unacceptable odours for neighbours. The following is used to assess the manure management system.

### Manure Type

The type of manure generated and used by the operation influences storage, handling and land application options available.

What type(s) of manure will be generated?

X solid semi-solid

X liquid

### Manure Volume or Weight

Manure production can be estimated using the Manure Production Calculator Table. The sizing of the manure storage is the responsibility of the operator and must be constructed in accordance with the <u>Livestock Manure and Mortalities Management Regulation</u>. Design and construction of a manure storage facility is dependent on the type of structure; earthen manure storage facilities must have between 400 and 500 days capacity, a steel or concrete storage tank must have between 250 and 500 days capacity. This ensures the facility has sufficient capacity eliminating the need for winter application.

What will be the total volume or weight of manure generated annually by the livestock operation? (See Manure Production Calculator Table.)

liquid volume: 2,112,045 igal/yr solid weight: 107,310 ft <sup>3</sup> /yr
Manure Production Calculator Table attached
Manure Storage Type and Capacity  The type of storage system used will affect the capacity requirements for the manure storage facility or field storage area.
What type of manure storage facility will be used by the operation?    X   under-barn concrete
Provide the dimensions of the existing and/or proposed manure storage facilities, if applicable. (See Existing and Proposed Manure Storage Facility Dimensions Table.)
Existing and Proposed Manure Storage Facility Dimensions Table attached
Odour Control Measures (project site)  Barns and manure storage facilities can be significant sources of livestock odours. The use of manure storage covers and shelterbelts can reduce this, particularly for neighbours in the vicinity of the operation.
What odour control measures are you planning to use?  Manure storage cover: X yes no  Type of cover: Floating straw cover
Shelterbelt planting: X yes no x existing shelterbelt
Other measures (specify): Additional trees to be planted.
Manure Treatment Under The Environment Act, the director must not issue a permit for the modification, expansion, or construction of a manure storage facility accommodating an increase in the number of animal units for pigs, unless the manure is treated using anaerobic digestion or another environmentally sound treatment that is similar to or better than anaerobic digestion, according to Manitoba Conservation and Water Stewardship.
Does your proposal include anaerobic digestion or another environmentally sound treatment for manure?
yes no not applicable

(Capacity) Veterne (It') (Ficture) (P) (Fit) (Ficture) (Capacity) (Capacity) (Fit) (Fit) (Fit) (Capacity) (Fit) (Gapacity) (Fit) (Fit) (Fit) (Gapacity) (Fit)				Delly M	Dally Manura Production			Humber of	100	Total Manuer Universe
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From Staal   Fro		addr-noo manae			Detault Manura	Operation Menura	2 (Days)	Animats 7	Total Manure	_
Free Stall	3		References	Manure Type	Production	Production		(Capachy)	(Volume (IIT) (FxQxH)	_
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Fine Stale   Semi-Stale   Semi-Stale   3.5   3				The same of the same	(E)	B			Section 1	
Top Stall   Froe				Semi-Sold	3.5	Service Services	500 S S S S S S S S S S S S S S S S S S	The second second		0.0
Total blank		Free Stall		Solid	3,4					
To Stade   Control   Con				Llouid	3.5	387	385	24		2 112 0441
The State   The	Deury (mallong cons		doe 6. pg 59.	Semi-Sold 3	36					000
1965   Lighed   2.0	and associated	Tie Stat	FPGs for Darry	Collect	36					0.0
Coope Housing   Coope Housin	Menoca)		585		200				•	
Solid			_	- Draft	3,6		200504	A STANSON OF THE STAN		0.0
Mailtage   Control Mailtage		Local Housing		Solid	3.0	30	365	30		A STATE OF THE PERSON NAMED IN
Border Care Included Personal Folds   12   19   19   19   19   19   19   19		Milliang Parlour Manure and Washwater		Liquid	0.5	Section 1				
Summer patents (200 day)   Pop 117, PPGs   Solid   0.83   0.85		Best cows Including associated Investock		Solid	1.2					
Secretar peaters / replacement hales:   Forticos   Solid   Cold	Brad	Backgrounder (200 day)	po 117. FPGs	Solid	0.73					
Feeder cattle   Feeder cattle   Sade		Summer pasture / replacement hollers	for Hops 1998	Solid	0.65	0.85	200 000	240		
Score - Entror to Neal (234 - 254 Eq.)   Liquid   2.3   Liquid   2.4   Liquid   2.5   Liquid		Feeder cattle		Solid	-					
Source - Eartron to weak light bit 1 bas)   IAAFRi website   Liquid   0.8		Stand Same in Solah 7394 362 Best								
Scores - Estrative to Lateral   18 abs   19 ab		COMP - INCOM M. Indiana (Com - Com Inco		DOMO	2.3				•	0.0
Sovin - Eartow to nursary (5) Day   FC6s for Pgs   Ligad   0.1     Conver   Pristing (5) - 249 Day   Ligad   0.25     Conver   Pristing (5) - 249 Day   Ligad   0.25     Conver   Pristing (11 - 5) Day   Ligad   0.25     Conver   Pristing (11 - 5) Day   Ligad   0.25     Broker   Pristing (11 - 5) Day (12 - 5) Day (11 - 5) Day (12 - 5) Day (13 - 5) Day (14 - 5) Day (15 - 5) Day (17 - 5) Day (17 - 5) Day (18 - 5) Day (1	i	SOWS - Isrrow to weak (up to 11 fbs)	MATH website.	Cloud	0.0		Strate and a second		•	0.0
Whatrings, Natrey (11 - 51 lba)   2007   Liquid   0.15   Connect (11 - 51 lba)   2007   Liquid   0.25   Connect (11 - 51 lba)   2007   Liquid   0.25   Connect (11 - 51 lba)   2008   2.20   2.30	200	Sows - Serrow to numery (51 the)	FPGs for Pigs	Lloyd		Name of the Party	Section 1997 Section 200	Statement of the last of the l		000
Crower   Finisher (5) - 249 lbs)   Ligad   0.25   Crower   Finisher (5) - 249 lbs)   Crops   Manure Production		Wearings, Nursery (11 - 51 lbs)	2002	Dould	0.1					000
Type of Operation   Type		Grower / Fhisher (51 - 249 lbs)		Llouid	0.25		CHECK COLUMN			000
Type of Operation   Type				J.	Yearly Manure Produ	ıctlen				Total Manura Valuma
Type of Operation   Type									_	The state of the s
Broker - Roor	Animal Type	Type of Operation		Default Man (R <sup>2</sup> )yeart	ure Production bird space)	Operation Menure Production (IT/vearbird space)		(Capacity)		For Semi-Sold and Liquid Manura (Imp Gal)
Brother breader heres   2.3   Brother breader heres   2.3   Brother breader publish   Table 3, pg 84   2.30   Leyers - Cope		Brotlers - Boor *			12					
Front   Fron		Broder breeder hons?			23	September 1				
Forestern - Floor   Fridge   1.16   Fridge   1.16   Fridge   1.16   Fridge   1.16   Fridge   1.16   Fridge   1.16   1.1		Broller broader pullets "			8					
Friest					1.16	20 Th 19 Carlo				
Layers - Roor	Chlotone		Table 3, pg 63.		133		of the Bar do			90
Puriess - solid pack   Control   C			AND POUNT		99					
Pullets - cage		Leyers - sold pack *			The second second					
Pullets - Sold patch		Pufets - cage *			171					00
Publish = solid patch   Table 3, pg 85, 2.80   Heavy lons   FPCs for Poutry 6.50   13.00   3.30		Pullets - Boor			7.0					
Broken   Table 3, pg 85, 2.80   Heavy lons   FPCs for Poutby 5.50   Heavy hens   2000 3.32	- 500	Puljets - solid pack					Colon Colon	STATE OF THE PARTY		
Heavy lons * FPCs for Poutry 6.56		Brollers *	Table 3, pg 85.		180	The second secon	100000000000000000000000000000000000000			
2000	Turkeys	Heavy lores	FPGs for Poutry		58					
	Section of the Section is a second	Heavy hers	0002		130					- Contract of

Sking of a manure storage Incliny in accordance with all requirements of the Livestock Monume and Montalities Management Regulation (M.R. 42/34) is the responsibility of the operator.

### Instructions and footnotes:

<sup>\*</sup> ENTER the manure production estimate for your operation. If no estimate is available, use the default value provided in columit. References for default daily and yearly manure produced in column C.

\* ENTER the number of days worth of manure that will be produced. For earthen manure storage facilities the minimum storage requirement is

ENTER the total number of animals or birds that the operation can hold (e.g. barn or feedlot capacity).

Milling come includes all lactaling and dry coms.

<sup>\*</sup> Defeat manure production estimates for semi-toid and louid dairy manure include manure and washwater from the milking partous.

<sup>2</sup> inches of wood sharkings or 4 inches of straw placed on floor. Manure and inter removed from barn at 25% moisture content, with a density of 20 lg/ft<sup>1</sup>

<sup>&</sup>lt;sup>2</sup> One-third litter floor, two-thirds statted floor. Manure and litter removed from barn at 40% moisture content, with a density of 25 fb/H<sup>2</sup>.

<sup>8</sup> Manure removed from barn at 90% moisture content with a density of 59 fb/H<sup>2</sup>.

Poultry operations using litter (solid pach) 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:

	Exi	Existing Manure Storage Facility Dimensions						
CELL	Width (ft)	Length (ft)	Depth (ft)	Height (ft) (Above Grade)	Slope	(H:L) Outside	Capacity (days)	
Primary	4	105	8	0	1	:	3	
Secondary	4	105	8	0	1	:	3	
Tertiary	20	40	8			•	5	
Circular T		Diameter (ft)	Depth (ft)	Height (ft)				
		164	12				251	

Permit/Registration # Circ. Tank LM-0648

### **Existing and Proposed Manure Storage Facility Dimension Table**

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

	Exis	sting M		e Storag	e F	ac	ility	7	Storage Capacity
CELL	Width (ft)	Length (ft)	Depth (ft)	Height (ft) (Above Grade)	Sl	•	(H:L Outsi	٠ ا	(days)
Primary	6	78	8	0		1	:		3
Secondary	4	108	10	0		1			4
Tertiary	4	108	10				:		4
			7+4	+ Height (ft)					
Circular T	i	Diameter (ft)							
									0

Permit/Registration #	
-----------------------	--

### **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:

Ξ	Exi	sting M		e Storag	e Fac	ility	Storage Capacity							
CELL	Width (ft)	(ft) (ft) (Above Grade) Inside Outside												
Primary	4	108	10	0	1		4							
Secondary	4	108	10	8	1	:	4							
Tertiary						:	0							
Circular T	ank	Diameter (ft)	Depth (ft)	Height (ft) (Above Grade)			0							

Permit/Registration	#
	Marie Control of the

If yes, please describe
Manure Application Method
The <u>Livestock Manure and Mortalities Management Regulation</u> requires the registration of annual manure management plans for new or expanding operations with 300 Animal Units or more.
Does the operation currently file an annual Manure Management Plan with Manitoba Conservation and Water Stewardship? (For operations with 300 Animal Units or more, only)  yes  X no
☐ yes                 X no
Manure application methods and the season in which manure is applied affect odour, nutrient availability, crop response, land base requirements and the risk of water contamination.
Proposed application method:    broadcast   the broadcast   the broadcast   broadcast   the br
The <u>Livestock Manure and Mortalities Management Regulation</u> prohibits the application of manure from November 10 of one year to April 10 of the following year (winter application).
Time of year for application: X spring summer X fall
The <u>Livestock Manure and Mortalities Management Regulation</u> puts restrictions on fall application of manure in the Red River Valley Special Management Area.
The proposed spread fields:  are are are not in the Red River Valley Special Management Area.
The state of the s
Land Available for Manure Application  The land available for manure application includes all suitable land (owned, leased or under agreement) that is available to the operation for manure application.
Under the Livestock Manure and Mortalities Management Regulation and the Nutriont

Under the Livestock Manure and Mortalities Management Regulation and the Nutrient Management Regulation, application of nutrients is not permitted on Agriculture Capability Class 6, 7 and unimproved organic soils (Nutrient Management Zone 4) and within Nutrient Buffer Zones.

Areas of a field that are Class 6, 7, unimproved organic soils (Nutrient Management Zone 4) or areas within the nutrient buffer zones are considered unsuitable for manure application. In addition, fields with 60 parts per million (ppm) Olsen phosphorus (P) in the top six inches (15 centimetres) of soil cannot be included in the land base calculation.

Nutrients cannot be applied within the Nutrient Buffer Zones as outlined in the Nutrient Management Regulation (62/2008) and illustrated in the Setback Requirements From Water Features Table.

Has the setback area for all	water features	been observed	and exclude	d from	land
base calculations for this op	eration?				

X yes

no

Use the Manure Application Field Characteristics Table to determine the following:

Total suitable area available for manure application	783 acres*	,	
Manure Application Field Characteristics		*1106 acres owned and availa spreading; 3 fields not soil s fall 2014	

Copies of <u>soil test reports</u> that are no more than 12 months old must also be included with this submission.

Soil test reports for the required area for manure application attached.

### Land Required for Manure Application

Long term, land base requirements for manure application are calculated based on estimates of the quantity of nutrients (nitrogen and phosphorus) excreted by livestock and the removal of nutrients by the proposed crops.

### **Phosphorus**

The quantity of phosphorus excreted by the livestock depends on the type, number and size of livestock, the quantity and availablility of phosphorus fed to the livestock and the amount retained by the livestock.

The removal of phosphorus by crops depends on the crops grown and the historical crop yield averages. (See the <u>Crop Rotation Table</u>).

The <u>Livestock Manure and Mortalities Management Regulation</u> requires that "sufficient land is available to the operator to implement an appropriate manure management plan" before Manitoba Conservation and Water Stewardship will issue a permit for a manure storage facility.

"Certain Areas" are defined by the <u>Livestock Manure and Mortalities Management</u> Regulation (M.R. 42/98) as areas where the amount of phosphorus in the manure produced annually by livestock in an area of not less than 93.24 km<sup>2</sup> is greater than two times the annual crop removal rate of  $P_2O_5$  in that area. Currently the rural municipalities of Hanover and La Broquerie are considered to be "certain areas".

A livestock operation is considered to be located within a "certain area" if any part of the operation is located within the "certain area". This may include, but not limited to, barn(s), confined livestock area(s), field storage location(s), manure storage facility(ies), and/or spread filed(s).

# MANURE APPLICATION FIELD CHARACTERISTICS TABLE

-	_	-	-		-	-	_		-								
Ä	Zoning	AG Bt. 10-2010	AG Bt. 10-2010	AG BL 10-2010	AG Bt. 10-2010	AG Bt. 10-2010	AG BL 10-2010	AG BL 10-2010									
J	Development Plan Designation	Rd Agr. BL 13-2007	Rd Agr. BL 13-2007	Rt Agr. Bl. 13-2007	Rd Agr. BL 13-2007	Rd Agr. BL 13-2007	Rd Agr. BL 13-2007	Rd Agr. BL 13-2007									Soil Capability for agriculture obtained from Agricultural Interpretation Database by Municipality
	Soil Phosphorus (ppm Olsen P) 0-6 inches	20	38	18	21	28	39	8									Soil Capability for agriculture obtained from Agricultural interpretation Database by Mu
Ŧ	Soil Nitrate (ib/acre) 0-24	41	47	23	47	49	12	12			No. 18				0		Soil Capability Agricultural in
9	Agriculture Capability Class and Subclass	3M6WP	3P	3P	O3W04W	3M/3Mi	3M2MP	3M2MP									
٤	Net Acreage for Manure Application	54	180	80	90	150	8	159									783
Ξ	Setbacks, including features	Prop. lines	Prop. lines, surface water	Prop. lines, surface water	Prop. lines	Prop. lines, surface water	Prop. lines, surface water	Prop. lines, surface water									Total Net Acreage for Manure Application:
٥	Total Acreage	65	180	160	80	160	80	160			ı						
ပ	OILIA	0	0	0	0	0	0	0									
Θ.	Rural Municipality	Ste-Anne	Ste Anne	Ste Anne	Ste Anne	Ste-Anne	Sta Anne	Ste Anne									
A	Legal Description	NE18-7-8E	S% of N% 7-7-8E	NW7-7-8E	NE1-7-7E	SW6-7-8E	NE6-7-8E	NW8-7-8E									
	Field	-	4+4N	သ	မ	7.5	æ	6									

@http://mli2.gov.mb.ca/solls/Index\_sollald\_gen\_new.html Enter the legal description for each parcel of land that will receive manure: Sec, Twp, Rge or River Lot (including parish).

identify the Rural Municipality in which the parcel is located.

indicate how the land has been secured for manure application: O - Own IL- Lease IA- Agreement

Enter the total acreage for the parcel.

Enter setbacks from surface water or groundwater features that reduce the land available for manure application; include identification of type of feature (e.g. 8m, Order 3 Enter the net long-term acreage available for manure application for the parcel after taking into account setbacks and excluding Class 6, 7 and unimproved organic soils.

Enter the agriculture capability class and subclass ratings for the acreage available for manure application.

Provide soil test results for nitrate-N in layer at the 0-24 inch depth. Soil test results must be no more than 12 months old and must be completed by an accredited soil-testing Provide soil test results for phosphorus ppm Olsen P at 0-6 inch depth. Soil test results must be no more than 12 months old and must be completed by an accredited soil-Please indicate the Development Plan and its by-law number in addition to the map designation for each field **4.ほびひほどのエーネス** 

Please Indicate the Zoning By-law and its by-law number in addition to the zoning for each field

# MANURE APPLICATION FIELD CHARACTERISTICS TABLE

					-	_	_							
¥	Zoning	AG Bt. 10-2010	AG Bt. 10-2010	AG BL 10-2010								14		<u>*</u>
7	Development Plan Designation	Rd Agr. Bt. 13-2007	Rd Agr. BL 13-2007	Rd Agr. BL 13-2007										Soil Capability for agriculture obtained from Agricultural interpretation Database by Municipality
_	Soll Phosphorus (ppm Olsen P) 0-6 inches													Soil Capability for agriculture obtained from Agricultural Interpretation Database by Mu
Ξ	Soil Nitrate (Ib/acre) 0-24							_		=				Soil Capa Agricultu
9	Agriculture Capability Class and Subclass	3M3MI	SM3MI	3M5W										
	Net Acreage for Manure Application	09	98	150										305
Ē	Setbacks, including features	Prop. lines	Prop. lines, surface water	Prop. lines										Total Net Acreage for Manure Application:
٥	Total	09	92	168										
ပ	ОПЛА	0	0	0										
8	Rural	Ste Anne	Ste Anne	Ste Anne										
A	Legal Description	W1/2 of SW7-7-	E12 of SW7-7-8E	NW6-7-8E										
	Field	2	က	7										

@http://mii2.gov.mb.ca/soils/index\_soilaid\_gen\_new.html Enter the legal description for each parcel of land that will receive manure: Sec, Twp, Rge or River Lot (Inclu

dentify the Rural Municipality in which the parcel is located.

Indicate how the land has been secured for manure application: O - Own / L - Lease / A - Agreement

Enter the total acreage for the parcel.

Enter setbacks from surface water or groundwater features that reduce the land available for manure application; include Identification of type of feature (e.g. 8m, Order 3 Enter the net long-term acreage available for manure application for the parcel after taking into account setbacks and excluding Class 6, 7 and unimproved organic solts. **КВООВЕОТ** 

Enter the agriculture capability class and subclass ratings for the acreage available for manure application.

Provide soil test results for nitrate-N in tb/ac at the 0-24 inch depth. Soil test results must be no more than 12 months old and must be completed by an accredited soil-testing Provide soil test results for phosphorus ppm Olsen P at 0-6 inch depth. Soil test results must be no more than 12 months old and must be completed by an accredited soil-

Please indicate the Development Plan and its by-law number in addition to the map designation for each field Please indicate the Zoning By-law and its by-law number in addition to the zoning for each field



Soil Analysis by Agvise Laboratories (http://www.agvise.com)

Northwood: (701) 587-6010 Benson: (320) 843-4109

SUBMITTED FOR:

### **SOIL TEST REPORT**

FIELD ID 1 SAMPLE ID **FIELD NAME** COUNTY

TWP 7-8E **RANGE** 

SECTION 18 **QTRNE** ACRES 65

PREV. CROP Soybeans

SUBMITTED BY: TE3016

**PATERSON GRAIN-STEINBACH** 

385 PTH 12N

STEINBACH, MB **R5G 1V1** 

N W F S

REF # 14155509 BOX # LAB # NW139772

Date Sampled 10/22/2014

LACTARIA HOLSTEINS

Date Received 10/25/2014

Date Reported 1/6/2015

Nutrient In	The Soil	Interpretation	1:	it Cro	p Choice	21	id Cra	p Chaice	3	rd Cr	op Cho	ice	
STREET		THE POS HIGH		Corr	n-Silage		Com	-Grain		700	1	W	
0-6" 6-24"	11 lb/ac 30 lb/ac			D GOAL		YIELD	GOAL		YIE	LD GOAL			
	30 10, 22	******		15	Tons		160	BU	0 SUGGESTED GUIDELINE				
0-24"	41 lb/ac		SUG	GESTE	D GUIDELINES	SUG	GESTED	GUIDELINES					
Nitrote					adcest		Brea	dcast			1000		
01				CRE	APPLICATION	LB/ACRE		APPLICATION	LB	LB/ACRE		CATION	
Phospherus Otsett	au ppm	******************	N	85	Para Plan	N	121		N		1.0		
Potassium	73 ppm	**********	P2O5	39	Broadcast	P <sub>2</sub> O <sub>5</sub>	37	Broadcast	P <sub>2</sub> O <sub>2</sub>				
Chleride			K <sub>2</sub> O	114	Broadcast	K20	136	Broadcast	K <sub>2</sub> O				
0-6"		***********************	1.7			CI			CI				
6-24" Sulfur	360 +10/ac	******************	S	0		S	0		S				
Beron			В			В			В				
Zinc	1.64 ррт	*************	Zn	2	Broadcast	Zn	4	Broadcast	Zn				
Iron			Fe			Fe			Fe				
Manganese			Mn			Mn			Mn				
Copper Hagnesium			Cu		1	Cu		-	Cu				
Calcium		******************		0		Mg	0	1	Mg	_			
Sedium	30 ppm		Lime			Ume		1	Lime				
OrgHatter		***************************************				tion Exc	4	% Base S	aturati	on (Ty	pical Pa	nce)	
Carbonate(CCE)			Soit	pH E	Suffer pH	Capaci			% Ma	% K	% Na	% H	
0-6" 6-24" Sol. Salts	0.37 mmho/cm 0.7 mmho/cm	********	0-6° i			35.4 m	eq	(65-75) (1	5-20) 16.2	(1-7) 0.5	(0-5)	(0-5)	

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

Crop 1: Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 54 K2O = 125 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 2: Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 64 K2O = 43 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.



Soll Analysis by Agvise Laboratories (http://www.agvise.com)

> Northwood: (701) 587-6010 Benson: (320) 843-4109

### **SOIL TEST REPORT**

FIELD ID 4+4N SAMPLE ID FIELD NAME

COUNTY TWP

385 PTH 12N

STEINBACH, MB

7-8E RANGE

SECTION 7 QTR NE ACRES 180

SUBMITTED BY:

PREV. CROP Soybeans

PATERSON GRAIN-STEINBACH

W E S

N

TE3016

14155511 BOX #

REF #

LAB # NW139781

SUBMITTED FOR:

LACTARIA HOLSTEINS

Date Sampled 10/22/2014

Date Received 10/25/2014

**RSG 1V1** 

Date Reported 1/6/2015

Nutrient In	The Soil	Interpre	tation	15	t Cro	op Chaice	21	nd Cro	p Choice		3rd Crop Choice				
			не		Cor	n-Silage		Corr	-Grain						
0-6" 6-24"	20 lb/ac 27 lb/ac			3.5	YIEL	D GOAL		YIEL	GOAL			YIE	LD GOAL		
					15	15 Tons		160	BU		0				
0-24"	47 lb/ac			SUG	GESTE	D GUIDELINES	SUG	SUGGESTED GUIDELINES			SUGGESTED GUIDEL				
Hitrate	Olsen 38 ppm				Bro	odcast	Broadcast								
- Clare				LB/	CRE	APPLICATION	LB/	ACRE	APPLICATI	ON	LB/	ACRE	APPLE	CATION	
Phesphorus	38 ppm	***********		N	79		N	115			N				
Potassium	185 ppm	*****		P2Os	15	Band (2x2)	P <sub>2</sub> O <sub>5</sub>	15	Band (2x2	) •	P2Os				
Chloride				K <sub>2</sub> O	47	Broadcast	K20	22	Broadcas	t	K <sub>2</sub> O				
0-6" 6-24"		***********		CI			CI				Cl				
Sulfur				S	0		5	a			S				
Zing	2.04			В			8				B				
Iran	2.51 ppm	***********		Zn	0		2n	0			Zn	5			
Manganese				Fe			Fe				Fe				
Copper		E. A.	. 3	Mn			Mn				Mn				
Magnesium	428 ppm	***********		Cu			Cu				Cu				
Calcium	4336 ppm		*******	Mg	0		Mg	0			Mg				
Sodium	49 ppm	******		Ume			Lime				Ume				
Org.Matter	2.8 %	******				Ce	tion Exc	hanne	% Base	Satu	ratio	n (Tv	pical Rai	nge)	
Carbonate(CCE)				Soll p	HE	luffer pH	Capaci	_	% Ca	% M	7	% K	% Na	% H	
0-6" 6-24"	0.29 mmho/cm 0.2 mmho/cm			0-6" B	-		25.9 m	eq	(65-75) 83.6	13.8		(1-7) 1.8	(b-5) 0.8	(0+5)	

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

Crop 1: \* Caution: Sead Placed Fartilizar Can Cause Injury \* Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 54 K20 = 125 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 2: \*\* Caution: Seed Pisced Fertilizer Can Cause Injury \*\* Nitrogen is credited 30 lbe for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2OS = 64 K2O = 43 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.



Soil Analysis by Agvise Laboratories (http://www.agvise.com)

> Northwood: (701) 587-6010 Benson: (320) 843-4109

SUBMITTED FOR:

**SOIL TEST REPORT** 

FIELD ID 5 SAMPLE ID FIELD NAME COUNTY

TWP 7-8E RANGE

SECTION 7 QTR NW ACRES 80

SUBMITTED BY:

PREV. CROP Affaffa

TE3016

PATERSON GRAIN-STEINBACH

385 PTH 12N

STEINBACH, MB

**R5G 1V1** 

N E W S

REF # 14155474 BOX # O

LAB # NW139743

Date Sampled 10/22/2014

**LACTARIA HOLSTEINS** 

Date Received 10/25/2014

Date Reported 1/6/2015

Nutrient In	The Soll	Interpretation		15	t Cro	p Choice		2n	d Cro	p Choice		31	rd Cr	op Cho	ice	
			1	- 124	Ali	falfa			AH	atfa			A	Malfa	- 3	
0-6" 6-24"	14 lb/ac 9 lb/ac			YIELD GOAL 5 Tons					YIELD GOAL				YIELD GOAL			
	310,00	*****							6	Tons		7 Tons				
0-24"	23 lb/ac		S	UGG	ESTEC	STED GUIDELINES		SUG	GESTED	GUIDELINE	5	SUG	GESTE	ED GUIDELINES		
Nitrata					Bros	dcast	cast		Broi	ndca st		Broada			dcast	
				B/A	CRE	APPLICAT	NOITA	LB/A	CRE	APPLICATI	ON	LB/ACF		APPLI	CATION	
Phosphorus Olsen	18 ppm	*************		N O				N	0			N	0			
Potassium	107 ppm	************	Pa	Os	34	Broadca	st	PaOs	40	Broadcas	t P	O5	47	Broa	dcast	
			K	0	168	Broadca	st	K <sub>2</sub> O	202	Broadcas	t	(20	235	Broa	dcast	
Chloride 0-6"	44 lb/ac			1				CI				CI				
6-24" Sulfur		***************	The second secon	6	0			S	0			s	0			
Seran	1.1 ppm			3	1	Broadca	st	В	1	Broadcas	t	В	1	Broa	dcast	
Zinc	2.59 ppm	*****	Z	п	0			Zn	0			Zn	0		0 1	
Iron	47.8 ppm	************	F	e	0			Fe	0			Fe	0			
Manganese	2.0 ppm		M	n	0			Mn	O			Mn	0			
Copper	0.53 ppm	********		u	1	Broadc		Cu	1	Broadca	rt	Cu	1		dcast	
Magnesium	481 ppm	**************				(Trial)	-			(Trial)				(11	ial)	
Calcium	5636 ppm	************	M	0	0			Mg	0			Мд	0			
Sødium	34 ppm	****	Lin	ne				Lime			L	me				
Org.Hatter	5.1 %	**************					Cati	on Exci	ance	% Base	Satu	atio	n (Ty	pical Ras	nge)	
Carbonate(CCE)	4.4 %		50	q ik	H B	uffer pH		Capaci		% Ca	% M	-	% K	% Na	% H	
0-6" 6-24" Sol. Salts	0.34 mmho/cm 0.4 mmho/cm			· 8.			3	32,6 mc	q	(65-75) 86.4	(15-20		(1·7) 0.8	(0-5)	(0-5)	

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

Crop 1: Nitrogen is cradited 25 ibs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 50 K20 = 230 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 2: Nitrogen is credited 25 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Hany crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 60 K20 = 300 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crep 3: Nitrogen is credited 25 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K evan on high soil tests. Crop Removal: P205 = 76 K20 = 350 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.



Soil Analysis by Agvise Laboratories (http://www.agvise.com)

> Northwood: (701) 587-6010 Benson: (320) 843-4109

> > SUBMITTED FOR:

LACTARIA HOLSTEINS

**SOIL TEST REPORT** 

FIELD ID SAMPLE ID FIELD NAME COUNTY

**TWP** 7-7E RANGE

QTR NE ACRES 80 SECTION 1

PREV, CROP Corn-Grain

SUBMITTED BY: TE3016

**PATERSON GRAIN-STEINBACH** 

385 PTH 12N

STEINBACH, MB **R5G 1V1** 

N W E S

REF # 14155581 BOX # NW184827

LAB #

Date Sampled 11/17/2014

Date Received 11/28/2014

Date Reported 1/6/2015

Nutrient In	The Soll	Inter	pretation	1:	st Cro	p Choice		2n	d Cro	p Choice	3	rd Cr	op Cho	ice
			The tro		So	beans		0 50	Soyl	beans		Cor	rn-Grain	
0-6" 6-24"	23 lb/ac 24 lb/ac				YIEL	D GOAL			YIELD	GOAL		YIEI	LD GOAL	
		******			40	BU	27		50	BU		16	O BU	
0-24"	47 lb/ac	-		SUG	GESTE	D GUIDELIN	ES	SUG	GESTED	GUIDELINES	SU	GGESTE	D GUIDE	LINES
Hitrate					e	bnet			В	and			Band	
					ACRE	APPLICAT	NO	LB/A	CRE	APPLICATION	LB	/ACRE	APPLI	CATION
Olsen Phosphorus	21 ppm	**********	******	N	***			N	***		Ņ	145		
Potessium	97 ppm	*********		P <sub>2</sub> O <sub>5</sub>	11	Band •		PaOs	14	Band #	P2O5	15	Band	(2x2) <sup>1</sup>
Chlonde				K₂O	29	Band *		K20	36	Band *	K <sub>2</sub> O	59	Bar	nd =
0-6" 6-24"	96 lb/ac 360 +lb/ac							CI			CI			
Sulfur Boron				S	0		_	5	0		S	0		
Zinc	2.30 ppm			В				В			В			
Iran				Zn	0			Zn	0		Zn	0		
Hanganese				Fe				Fe			Fe			
Copper				Mn				Mn			Mn			
Hagnesium	568 ppm	******		Cu				Cu			Cu			
Calcium	4407 ppm	******		Mg	0			Mg	0		Hg	0		
Sodium	56 ppm			Lime				Ume			Ume			
Qrg.Hatter	4.5 %	*****			T		Cati	on Excl	hange	% Base S	aturati	on (Ty	pical Rai	nge)
Carbonate(CCE)				Soil	PH E	luffer pH		Capacit		1 1 1 1	6 Mg	% K	% Na	% H
0-6" 6-24" Sel. Salts	0.51 mmho/cm 0.58 mmho/cm	*****		0-6° 7			:	27.3 me	q	The second secon	5-20) L7.4	(1-7) D.9	(0-5) <b>0.9</b>	(0-5)

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

Crop 1: \* Caution: Seed Pieced Fertilizer Can Cause Injury \* Hany crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2OS = 35 K2O = 60 A GVISE Band guidelines will build P & K test levels to the medium range over many years. Soybeans may respond to nitrogen on fields testing less than 60 lb/sc with a limited soybean history.

Crop 2: " Caution: Seed Placed Fartilizer Can Cause Injury " Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 44 K2O = 75 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

Crop 3: \* Caution: Seed Pfeced Pertitizer Can Cause Injury \* Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 64 K20 = 43 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

SUBMITTED FOR:

### SOIL TEST REPORT

FIELD ID 7 SOUTH

SAMPLE ID FIELD NAME COUNTY

TWP 7-8E RANGE

SECTION 6 QTRSW ACRES 150

PREV. CROP Soybeans

SUBMITTED BY: TE3016

PATERSON GRAIN-STEINBACH

385 PTH 12N

STEINBACH, MB RSG 1V1

W E

REF # 14155510 BOX # 0 LAB # NW139777

Date Sampled 10/22/2014

LACTARIA HOLSTEINS

Date Received 10/25/2014

Date Reported 1/6/2015

Nutrient In	The Soil	Interpretation	1:	st Cro	p Choice	2r	id Cro	p Choice	3	rd Cr	op Cho	ice
		Bed Edit Hot		Corr	n-Silage		Corn	-Grain				
0-6" 6-24"	13 lb/ac 36 lb/ac			YIEL	D GOAL		YIELD	GOAL		YIE	LD GOAL	
	2010,40	*********		15	Tons		160	BU			0	
0-24"	49 lb/ac		SUG	GESTE	D GUIDELINES	SUG	GESTEO	GUIDELINES	SU	GGESTI	ED GUIDE	LINES
Militate			M	Bro	adcast		Bros	dcast				
			LB/	ACRE	APPLICATION	LB/	ACRE	APPLICATION	LB	/ACRE	APPLI	CATION
Olsen Phosphorus	28 ppm	****************	N	77		N	113		N			
Potassium	93 ppm	•••••	P <sub>2</sub> O <sub>5</sub>	15	Band (2x2) *	P2O5	15	Band (2x2) *	P2Os			
Chloride			K <sub>2</sub> O	102	Broadcast	K20	116	Broadcast	K <sub>2</sub> O			
Q-6" 6-24"		*****************	- 41			CI			cı			
Boren			5	0		5	0		S	-		
Zinc	mac <b>60.</b> E	******************	В			В			В			
Iren			2n	0		Zn	0		Zn			
Manganese			Fe			Fe			Fe			
Соррет			Mn			Mn			Mn			
Magnesium	659 ppm		Cu			Cu			Cu			
Calcium	4668 ppm	*****************	Mg	0		Mg	0		Mg			
Sedium	169 ppm		Ume			Lime			Ume			
Org.Hatter	4,0 %	**********			Cont	on Exc	hanne	% Base S	aturati	on (Tv	nical Pa	nge)
Carbonate(CCE)			Soll	B He	luffer pH	Capaci	100		b Mg	% K	% Na	% H
0-6" 6-24" Sol. Salts	0.55 mmho/cm 0.47 mmho/cm		0-6" 8			29.9 m	oq	(65-75) (1	-20) B.4	(1-7)	(0-5)	(0-5)

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

Crop 1: \* Caution: Seed Pisced Fertilizer Can Cause Injury \* Nitrogen is credited 30 libs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P203 = 54 K20 = 125 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 2: \* Caution: Seed Placed Fertilizer Can Cause Injury \* Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 64 K20 = 43 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.



Soil Analysis by Agvise Laboratories (http://www.agvise.com)

Northwood: (701) 587-6010 Benson: (320) 843-4109 SUBMITTED FOR:

### **SOIL TEST REPORT**

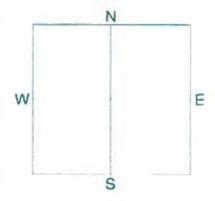
FIELD ID 8
SAMPLE ID
FIELD NAME
COUNTY

TWP 7-8E RANGE

SECTION 6 QTR NE ACRES 80

SUBMITTED BY:

PREV. CROP Alfalfa



PATERSON GRAIN-STEINBACH

TE3016

385 PTH 12N

STEINBACH, MB RSG 1V1

REF # 14155476 BOX # 0

LAB # NW139754

Date Sampled 10/22/2014

**LACTARIA HOLSTEINS** 

Date Received 10/25/2014

Date Reported 1/6/2015

Nutrient	In The Soil	Inter	pretation	1:	st Cro	op Choice		2n	d Cro	p Chaice		ard Ci	op Cho	oice
	7		tron		٨	lfalfa			Alf	alfa			Alfalfa	
6-2					YIEL	D GOAL			AIEIT	GOAL		YIE	LD GOAL	
	0.07.00				5	Tons			6	Tons		7	Tons	T S
0-24	" 12 lb/ac			SUG	GESTE	D GUIDELINES	5	SUG	GESTED	GUIDELINES	SU	GGEST	ED GUIDE	LINES
Hitrate					Bro	adcast			Broz	dcast		Br	oadcast	
				LB/	ACRE	APPLICATION	ON	LB/A	CRE	APPLICATIO	N LE	/ACRE	APPLI	CATION
Olse Phosphorus	n 39 ppm	******	************	N	O		7	N	0		N	0		
Potassium	243 ppm	*********		P <sub>2</sub> O <sub>5</sub>	0			P2O5	0		P2O1	0		
				K20	32	Broadcas		K20	38	Broadcast	K20	45	Broa	deast
Chloride				CI				CI			CI			
0-( 6-24 Sulfur		1	**********	S	D			S	0		S	0		
Baren	2.2 ppm			В	0			В	0		В	0		
Zinc		TO A SEC.		70	a			Zn	0		Zn	0		
Iron				54	0			Fe	0		Fe	0		
Hanganesa	1.9 ppm			Мп	0			Mo	0		Mn	0		
Copper	0.74 ppm	*********		Cu	1	Broadcas	t	Cu	1	Broadcast	Cu	1	Broz	dcast
Nagnesium	518 ppm	******				(Trial)			•	(Trial)			(Tr	ial)
Calcium	4600 ppm			Mg	0			Mg	0		Mg	0		
Sodium	93 ppm			Lime				Ume			Lime			
Org.Hatter	3.5 %				T		atio	n Excl	nande	% Base	Saturati	on (Ty	pical Ra	nge)
Carbonate(CCE)	5.2 %	******		Soil 1	OH E	Suffer pH	(32)	apacit		% Ca	% Mg	% K	% Na	% H
0-6 6-24 Sal. Salts		******		0-6" E			21	8.3 me	q	(65-75) 81.1	15-20)	(1-7)	(0-5)	(0-5)

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

Crop 1: Nitrogen is credited 25 lbe for the pravious crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 50 K20 = 250 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 2: Nitrogen is credited 25 lbe for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 60 K20 = 300 A GVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: Nitrogen is credited 25 the for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 70 K20 = 350 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.



Soil Analysis by Agvise Laboratories

(http://www.agvise.com)

Northwood: (701) 587-6010 Benson: (320) 843-4109

### SUBMITTED FOR:

LACTARIA HOLSTEINS

**SOIL TEST REPORT** 

FIELD ID SAMPLE ID FIELD NAME COUNTY

TWP 7-8E RANGE

SECTION 8 QTR NW ACRES 160

PREV. CROP Alfalfa

W

N

REF #

14155475 BOX #

S

LAB # NW139748

SUBMITTED BY:

PATERSON GRAIN-STEINBACH

385 PTH 12N

STEINBACH, MB

**RSG 1V1** 

TE3016

Date Sampled 10/22/2014

Date Received 10/25/2014

Date Reported 1/6/2015

Nutrient In	The Soil	Interpretation	1:	it Cro	p Choice	21	nd Cro	p Choice	8	ord Cr	op Cho	oice
				Al	Ifalfa		Alt	falfa			Alfalfa	-
0-6" 6-24"	6 lb/ac 6 lb/ac			YIELI	D GOAL		AIEIT	GOAL		YIE	LD GOAL	
	0.0,20			5	Tons		6	Tons		7	Tons	
0-24"	12 lb/ac		SUG	GESTE	GUIDELINES	SUG	GESTEC	GUIDELINES	SU	GGESTI	D GUIDE	LINES
Nitrata				Bro	adcast		Bro	dcast		Br	padcast	
			LB//	ACRE	APPLICATION	LB/	ACRE	APPLICATION	LB	/ACRE	APPLI	CATION
Olsen Phosphorus	8 ppm	**********	N	0		N	0		N	0		
Potassium	63 ppm	******	P <sub>2</sub> O <sub>5</sub>	82	Broadcast	P <sub>2</sub> O <sub>5</sub>	98	Broadcast	P2O5	114	Broa	dcast
	la de la companya de		K20	212	Broadcast	K <sub>2</sub> O	254	Broadcast	K20	297	Вгоз	dcast
Chloride 0-6 <sup>M</sup>	18 lb/ac		CI			CI			CI			
6-24" Sulfur		***************************************	s	10	Broadcast (Yrial)	s	10	Brondcast (Trial)	s	10		idcast
Boron	1.4 ppm	******************	В	0		6	0		В	0	-	
Zinc	1.15 <u>pp</u> m	***********	Zn	a		Zn	0	-	Zn	0	+	
Iron	24.0 ppm	****************	-						-		-	
Hanganese	1.3 ppm	**********	Fe	0		Fe	0		fe	0		
Copper	0.24 ppm	40000	Mn	0		Mn	0		Mn	0		
Hagnestym	S04 ppm	*****************	Cu	3	Broadcast	Cu	3	Broadcast	Cu	3	Broa	dcast
Calcium	5270 ppm	**************	Mg	0		Mg	0		Mg	0		
Sedium	28 ppm	4844	Lime			Ume			Ume			
Org.Matter	3.9 %	****************				tion Exc	hanna	% Base S	aturati	on (Tv	oical Ra	noe)
Carbonate(CCE)	5.9 %	******	Soil	H B	uffer pH	Capaci			6 Ng	% K	% Na	% H
0-6" 6-24" Sol. Saits	0.23 mmho/cm 0.16 mmho/cm		0-6" 8 6-24" 8	_		30.8 m	eq.		5-20) 3.6	(1-7)	(0+5)	(0-5)

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

Crop 1: Nitrogen is credited 25 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 250 AGV158 Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 2: hitrogen is credited 25 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 66 K2O = 308 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: Nikrogen is credited 25 ibs for the previous crop. Nikrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 70 K2O = 350 AGVISE Breadcost guidelines will build P & K test levels to the high range over several years.

### **CROP ROTATION TABLE**

<b>V</b>	80	ပ	O	ш
Expected Crops in the Rotation	Acreage	Historical Yield	Units	Source of Yield Informat
Alfalfa	319	2.11	Yac	MMMP crop variety yiel
Corn silage	150	12.8 (4.5)	t/ac (t/ac dry matter)	MMMP crop variety yiels
Corn grain	234	95.1	pn/ac	MMMP crop variety yiel
Soybeans	80	32	bu/ac	MMMP crop variety yiel
Total Net Acreege for Manure Application	783 acres			

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 manual transfer.

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. The total of column 8 should add up to Total Net Acreage for Manure Application provided in the Manure Application Field Characteristic Table.

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 are used, please provide copies.

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Enter the units for the yields provided (e.g. bu/acre, tons/acre). Enter the source of the historical yield average provided. ப்



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### **MMPP Variety Yield Data Browser**

(Variety Query Help)

Save Raw Data

**New Search** 

Summary

Raw Data

### **Search Summary**

Your selected search:

Region(s) Selected: STE. ANNE

Crop(s) Selected: ALFALFA

Variety(s) Selected: All

Period Selected: 2003 to 2013

This search returned 46 records from the MASC database, summarized below:

Sum of Farm Varieties:

104 farms

Total Acres:

9,779 acres

Yield per Acre:

2.110 Tons / acre

(1.914 tonnes / acre)

View Raw Data

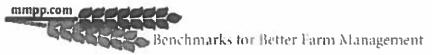
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Summary Raw Data

### **Search Summary**

Your selected search:

Region(s) Selected: STE. ANNE

Crop(s) Selected: GRAIN CORN

Variety(s) Selected: Ali

Period Selected: 2003 to 2013

This search returned 117 records from the MASC database, summarized below:

Sum of Farm

Varieties:

380 farms

Total Acres:

40,053 acres

Yield per Acre:

95.1 Bushels / acre

(2.416 tonnes / acre)

View Raw Data

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### **MMPP Variety Yield Data Browser**

(Variety Query Help)

Save Raw Data

**New Search** 

Summary Raw Data

### **Search Summary**

Your selected search:

Region(s) Selected: STE. ANNE

Crop(s) Selected: SOYBEANS

Variety(s) Selected: All

Period Selected: 2003 to 2013

This search returned 80 records from the MASC database, summarized below:

Sum of Farm Varieties:

293 farms

**Total Acres:** 

38,190 acres

Yield per Acre:

32.0 Bushels / acre

(0.872 tonnes / acre)

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(Variety Query Help)

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Summary

Raw Data

Save Raw Data

New Search

### **Search Summary**

Your selected search:

Region(s) Selected: STE. ANNE

Crop(s) Selected: SILAGE CORN

Variety(s) Selected: All

Period Selected: 2003 to 2013

This search returned 77 records from the MASC database, summarized below:

Sum of Farm

Varieties:

117 farms

Total Acres:

9,147 acres

Yield per Acre:

12.758 Tons / acre

(11.577 tonnes / acre)

@ 35% dm content, Yield is 4.5 t/ac

View Raw Data

Save Raw Data

New Search

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In "certain areas" it is Manitoba Conservation and Water Stewardship policy to consider a manure storage facility permit if the operation shows it has access to sufficient suitable land to apply manure at a rate equivalent to one times the crop removal rate of phosphorus.							
Is the liv		tion located i	n " <i>certain are</i> ·	eas''?			

In areas which are not considered to be "certain areas", Manitoba Conservation and Water Stewardship may issue a manure storage facility permit, if the operation shows it has access to sufficient suitable land to apply manure at a rate equivalent to two times the crop removal rate of phosphorus.

For more information on obtaining a manure storage facility permit, please contact Manitoba Conservation and Water Stewardship, Environmental Approvals branch at (204) 945-5081.

Use the <u>Land Base Calculator</u> to calculate the minimum area required for manure application.

Total minimum area required for manure application at two times crop removal, for operations outside of Hanover and La Broquerie	545 acres
Total minimum area required for manure application at one times crop removal, for operations within Hanover and La Broquerie AND	1089 acres
For the long-term sustainability of operations outside of Hanover and La Broquerie	

For more information on completing land base calculations, call Manitoba Agriculture, Food and Rural Initiatives (MAFRI) at (204) 945-3869 in Winnipeg.

X Land Base Calculator attached

### Land Base Requirement Summary

By comparing the land available for manure application with the land required for manure application, state whether sufficient suitable land for manure application:

has not been identified
X has been identified for two times the crop removal rate of phosphorus (for
operations outside of the RMs of Hanover or La Broquerie)
has been identified for one times the crop removal rate of phosphorus (for operations
within the RMs of Hanover and La Broquerie)

									N Excreted Por Herd	P205
Туре	Storage Type	Volatilization	Animai	Weight in	Weight Out	Average Animal Wit	Days on Feed per Cycle	Number of Cycles per Year	Adjusted for Storage N Loss	Excreted per Hord Per Year
				Q	(Q)	(b)	(days)		(Bryntherd)	(lb/yrfherd)
Lactaing Cows	Liquid Uncovered Earthen	360E	240	1400	1440	1420	365	-	59273	33055
Dry Cows	Manure Pack	%0Z	8	1440	1440	1440	365	-	4431	1616
Calves, 0-3 months	Manure Pack	20%	98	8	275	53	365	-	2865	342
Calves, 4-13 months	Manure Pack	\$02	8	275	810	253	365	-	2825	1406
Replacements, >13 months	Manure Pack	362	52	810	1250	1030	365	-	11378	4984
Mature Cows, plus associated livestock	Liquid Uncovered Earthen	30%	0	n/a	nça L	nda	nfa	e/o	•	c

Last revised August 20, 2014

	Rem	oval	Uptake		17-		1000	Ren	level	Uptake
Crop	P205	N	N	Units	Yield	Units	Acreage	P205	N	N
								(lb)	(lb)	(Ib)
Alfalfa	13.8	58	58	lb/ton	2.1	ton/ac	319	9245	38854	38854
Barley Grain	0.42	0.97	1.39	lb/bu		bu/ac			-	
Barley Silage	11.8	34.4	34.4	lb/ton		ton/ac		-		-
Canola	1.04	1.93	3.19	lb/bu		bu/ac				
Corn Grain	0.44	0.97	1,53	lb/bu	95.1	bu/ac	234	9791	21586	34048
Corn Silage	12.7	31.2	31.2	lb/ton	4.5	tons/ac	150	8573	21060	21060
Dry Edible Beans	1.39	4.17		lb/cwt		cwt/ac				
Fababeans	1.79	5.02	8.4	lb/cwt		cwt/ac		100		
Flax	0.65	2.13	2.88	lb/bu		bu/ac		-	Maria .	
Grass Hay	10	34.2	34.2	lb/ton		tons/ac		1000		100
Lentils	1.03	3.39	5.08	lb/cwt		cwt/ac				
Oats	0.26	0.62	1.07	ib/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				I The said
Rye	0.45	1.06	1.67	lb/bu		bu/ac		-	•	
Soybeans	0.84	3.87	5.2	lb/bu	32	bu/ac	80	2150	9907	13312
Sunflower	1.1	2.8		lb/cwt		cwt/ac				-
Wheat - Spring	0.59	1.5	2.11	lb/bu		bu/ac		15078		
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac		acide - Comp		
	10	Vision in			ALICO CONTRACTOR	Sub Total	783	29759	91407	107274
			Estimate	d Average R	lemoval/U	ptake (lb/ac)		38.0	116.7	137.0
					Add	itional Acres				
				Crop Plant	ned on Add	itional Acres				
			Total 5	iuitable Acre	es Available	for Manure	783			
Note:						lable for man wn in the rov	The state of the s	tion but are	seeded to	crops that

Last revised August 20, 2014

Species	Animal Category/Operation type	N	P205
Pigs	Gestating Sow	(lb/year)	(lb/year
riga	Nursing Sow	0	0
	Gilts	0	0
	Boars	0	0
		0	0
	Sows, farrow to 5 kg	0	0
	Sows, farrow to 23 kg	0	0
	Sows, farrow to finish	0	0
	Wearlings	0	0
	Growers/finishers	0	0
Beef	Mature Cows (>2 years old)	0	0
	Bred Heifer (14 mo - 2 years)	0	0
	Replacement Heifers (7 mo-14 mo)	0	0
	Unweaned Calves (0-7 mo)	0	0
	Bulis	0	0
	Mature Cows and Bred Helfers, plus associated livestock	0	0
	Feediot Cattle - long keep	0	0
	Feedlot Cattle - short keep	0	0
	Backgrounders - pasture	0	0
	Backgrounders - confined	0	0
Dairy	Lactating cow	59273	33055
	Dry cow	4431	1616
	Calf, 0-3 months	The State of the last of the l	
	Calf, 4-13 months	265	342
	Replacements, >13 months	2825	1406
	Mature Cows, plus assoc livestock	11378	4984
heep	Ewes	0	0
	Replacement Ewes		0
	Rams	0	0
	Lambs	0	0
	Ewes, plus assoc livestock	0	0
	Feeder	0	0
hickens	Broilers	0	0
	Broiler Breeder Pullets	0	0
	Broiler Breeder Hens	0	0
yers	Layer Pullets	0	0
ayers		0	0
	Layer Hens Breeder Pullets	0	0
		0	0
	Breeder Hens	0	0
urkeys	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
1	Breeding Tom (30-60 wks)	0	0
	Total	78172	41403

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

Nutrients Excreted	lbs
Nitrogen	78172
P2O5	41403
Crop Nutrient Use	lb/ac
Nitrogen Uptake	137.0
P2O5 Removal	38.0
Land Base Requirements	acres
Acres Available	783
Acres for Nitrogen Uptake	571
Acres for 2 x P2O5 Removal	545
Acres for 1 x P2O5 Removal	1089

### Long-Term Environmental Sustainability

The Government of Manitoba has included phosphorus as a nutrient by which applications of manure, synthetic fertilizer and municipal waste sludge to agricultural lands may be limited.

Over the short-term for fields with low phosphorus, regulations allow manure to be applied to meet the nitrogen requirements of the crop. This often results in overapplication of phosphorus and a build-up of phosphorus in soils. When soil test phosphorus levels reach 60 ppm Olsen P, manure application rates must consider how much phosphorus will be removed in the harvested portion of the crop. At 60 to 119 ppm Olsen P, the amount of phosphorus that can be applied cannot exceed twice (two times) what the crop can remove in order to slow the build-up of soil phosphorus. Once soil test phosphorus levels reach 120 ppm Olsen P, applications of phosphorus are restricted to no more than what the crop can remove (one times) in order to stop further soil test phosphorus build-up. At 180 ppm Olsen P, no additional phosphorus may be applied.

It should be noted that soil-test phosphorus levels of 60 ppm Olsen P or greater are agronomically very high and at these levels most crops will not benefit from additional phosphorus beyond starter phosphorus. As phosphorus levels build up in soils, the concentration of phosphorus in runoff increases.

Therefore, to remain environmentally sustainable over a long-term planning horizon of 25 years or more, phosphorus applications from applied manure and other nutrient sources such as commercial fertilizers must be balanced with crop removal to avoid further build-up in soils. Consequently, sufficient land must be available in relatively close proximity to the operation to balance phosphorus applications with crop phosphorus removals (one times) so that manure treatment and export of phosphorus from the region is not required.

X I acknowledge that up to 1089 acres acres/hectares (one times crop removal from table above) may be required for the long term environmental sustainability of the operation.

### 10.0 Mortalities (Dead Animal) Disposal

The Livestock Manure and Mortalities Management Regulation sets requirements for
the use, management and storage of livestock mortalities in agricultural operations. It help ensure livestock mortalities are handled in an environmentally sound manner. Winter
application of composted mortalities is prohibited.
There is 6 diameters and the control of the control
Type of disposal: rendering  X composting
incineration (in approved incinerator only)
incheration (in approved memerator only)
Mass Mortalities
A plan for mass mortalities is in place.
What steps will be taken in the case of mass mortalities?
Hauling dead stock to a landfill designated by Manitoba Conservation.

# Development Plan and Zoning Bylaw

The Planning District or Municipal Development Plan and Zoning By-law adopted under <u>The Planning Act</u>, set policy and regulations for the use and development of land. A proposed livestock operation must comply with the requirements of this bylaw. In the absence of a By-law, the <u>Provincial Planning Regulation</u> under <u>The Planning Act</u> applies.

For assistance contact your Community and Regional Planning Regional Office.

11.0 Project Site Description: Land Use Planning Considerations

### Development Plan

Every Development Plan must contain a livestock operation policy (LOP) that identifies areas where new or expanded livestock operations may be allowed. It must also set general standards for the location and setback of livestock operations. Identifying the Development Plan's land use designation and policies (for the planning district or municipality that affect the site) will help confirm the project site's compliance. The Development Plan designations for the spread fields (if something other than agricultural) will indicate the potential loss of the fields in the future due to possible development.

Name of Planning District	RM Ste Anne		
Development Plan by-law number	Zoning By-Law # 10-2010, Dev Plan # 13-2007		
Land use designation of project site	Agriculture Zone		
Livestock operation policies – quote supportive policy numbers	LOP 5.5.1a, 5.5.2, 5.5.6, 5.5.7		
Other Development Plan policies – quote supportive policy numbers	5.1		
Non-supportive Development Plan policies	5.5.10		

X The Development Plan livestock operation policies support the size and location of the proposed operation.

The Development Plan designations support the long term use of the proposed spread fields.

### Zoning By-law

Identifying the zoning for the project site, the proposed spread fields and the related zoning provisions, helps determine the project's compliance and the minimum separation distances needed between the operation and property boundaries and other natural features and land uses. The zoning bylaw contains specific regulations that govern location and setback of livestock operations.

What are the minimum project site requirements stated in the Zoning By-law?

	Project site dimensions	Minimum zoning bylaw site requirements
Minimum site area	320 acres	80 acres
Minimum site width	As determined by council	As determined by council
Minimum front yard	As determined by council	As determined by council
Minimum side and rear yard	As determined by council	As determined by council

If any project (front, side or rear) yard site dimensions are less than the Zoning By-law minimum, a Variation Order from the Municipality will be required.

Separation Distances (Zoning Bylaw or Provincial Planning Regulation)

Using the proposed size of the operation (see Animal Units Calculation Table) and the type of animal housing and manure storage facility, complete the following table.

### Indicate the distance from:

- a. earthen manure storage facility or b. feedlot and
- c. animal confinement facility or d. non-earthen manure storage facility...

to the following land use features (if applicable)	separatio required zoning by Provincia Regulatio	law or I Planning	If land use feature is less than the minimum separation distance			
	☐ a. ☐ b.	X c.	Provide actual distance	Provide location or name of feature (e.g. Red River)		
Residence/ dwelling		820 ft	865 ft	Nearest residence		
Designated area (non-agricultural)		4364 ft	1.6 mi (8840')	Town of La Broquerie		
Surface water	n/a					
Surface watercourse		1000 ft	3700 ft	From the Seine River		
Crown land		n/a				
Wildlife Management Area		n/a				
Livestock operation		n/a				
Other significant features/land uses		n/a				

If Crown Lands are located within one mile, provide coding. Information can be obtained from the Interdepartmental Operations Crown Lands Plans through the <u>Manitoba</u>
<u>Legislative Library</u> or contact Manitoba Conservation and Water Stewardship at (204) 619-2230.

If undesignated Crown Lands will be used for manure spreading purposes, including the laying of pipe or clearing activity, and use will require a Crown Lands General Permit disposition for the use and access of the subject Crown Lands Parcel(s).

In cases where minimum separation distances are not stated in the Zoning By-law or Development Plan, the minimum separation distances in the <u>Provincial Planning</u> <u>Regulation</u> apply.

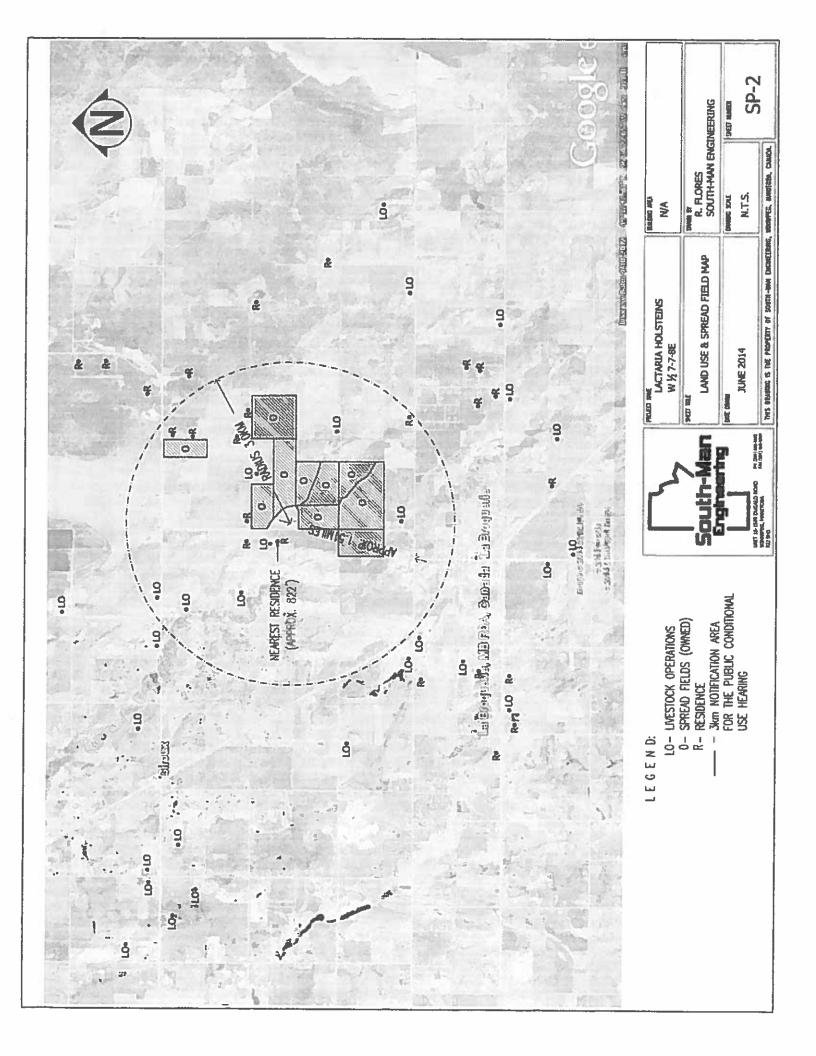
Note: If any separation distance is less than the zoning by-law minimum, a Variation Order will be required from the Municipality.

Setback Distances (Livestock Manure and Mortalities Management Regulation)
Using the following table to indicate the distance from:

Feature	Structure	Minimum setback distance required	Provide actual distance (m)	Provide location or name of feature (e.g. Red River)
	Manure storage facility	100 m	150 m	Circular concrete tank to 3 <sup>rd</sup> order drain
Surface watercourse,	Field storage	100 m	> 100 m	Location varies yearly
sinkhole, spring, or well	Composing site	100 m	> 100 m	Location varies yearly
	Confined livestock area	100 m	n/a	
	Manure storage facility	100 m	125 m	To PR 302
Property Line	Composing site	100 m	> 100 m	Location varies yearly
	Confined livestock area	100 m	n/a	

If any setback distances have not been met, please provide explanation below:

Show: a) location of the project site, location and ownership of spread fields and b) land uses and significant features including dwellings (i) within a 1 mile radius of the project site and (ii) within and adjacent to each spread field on a Land Use & Spread Field Map. (See Land Use & Spread Field Map Example).



# 12.0 Truck Haul Routes and Access Points 🕐

One consideration with new or expanding livestock operations is the potential impact on existing public roads (municipal and provincial), access and the need for improvements or mitigation. Complete the following table.

Vehicle Type	Estimated Average Number of times per day accessing		Access from PTH/PR onto site will mainly require a Left or Right Hand Turn Please check one				Access onto PTH/PR from site will mainly require a Left or Right Hand Turn Please check one			
	Provincial Trunk Highway (PTH)	Provincial Road (PR)	Provincial Trunk Highway (PTH)		Provincial Road (PR)		Provincial Trunk Highway (PTH)		Provincial Road (PR)	
			LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT
Truck		1			Х					Х
Tractor Trailer		3								X
Other - Specify								<del></del>		

Identify what roads and access points will be used for the proposed operation? (See <a href="Truck Haul Routes and Access Points Map">Truck Haul Routes and Access Points Map</a> for an example).

For help with mapping, contact your <a href="Community and Regional Planning Regional Office">Community and Regional Planning Regional Office</a>.

Truck Haul Routes and Access Points Map attached

13.0 Conservation Data Centre Report

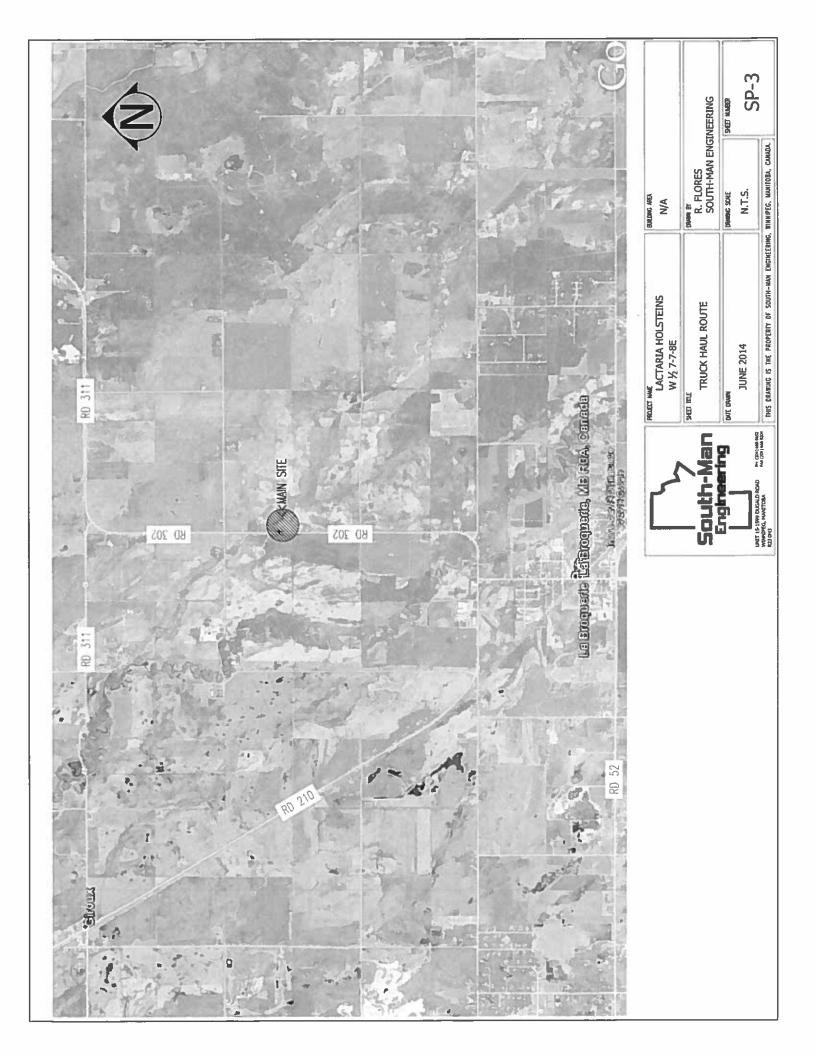
A Conservation Data Centre Report must be requested and the response attached to this site assessment. The request may be submitted electronically at:

www.gov.mb.ca/conservation/cdc

Were rare species identified in the Conservation Data Centre Report?

Yes

No





### Peter Grieger <peter.southmaneng@gmail.com>

#### Lactaria Hoisteins

1 message

Friesen, Chris (CWS) < Chris.Friesen@gov.mb.ca>
To: "peter@southmaneng.com" < peter@southmaneng.com>

Fri, Jun 27, 2014 at 1:23 PM

Peter

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 Branch, Manitoba Conservation and Water Stewardship.

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
Blodiversity Information Manager
Manitoba Conservation Data Centre
204-945-7747
chris.friesen@gov.mb.ca
http://www.gov.mb.ca/conservation/cdc/

----Original Message----

From:

Sent: June-25-14 8:18 PM To: Friesen, Chris (CWS)

Subject: WWW Form Submission

Below is the result of your feedback form. It was submitted by WWW Information Request () on Wednesday, June 25, 2014 at 20:18:14

DocumentID: Manitoba Conservation

Project Title: Lactaria Holsteins

Date Needed: 2014/07/03

Name: Peter Grieger

Company/Organization: South-Man Engineering

Address: Unit 15 - 1599 Dugald Road

City: Winnipeg

Province/State: Manitoba

Phone: (204) 668-9652

Fax: (204) 668-9204

Email: peter@southmaneng.com

Project Description: Project involves the expansion of an existing livestock operation (dairy)contained within housing and penning facilities as opposed to free range. Information received will be used to evaluate the impact of the operation on rare or endangered species.

Information Requested: Would like to identify the presence of any rare or endangered species which may be impacted by confined livestock within the area.

Format Requested: Microsoft Word Document preferred via email.

Location: Location W 1/2 7-7-8E in the RM of Ste. Anne.

action: Submit

## **14.0 Supporting Documents**

Che	cck off the supporting documents included in this submission:
	Contact Information and Privacy and Publication Notice  Location Map (shows proposed project within rural municipality)  Animal Units Calculation Table  Water Requirement Calculation Table  Manure Production Calculator Table  Existing and Proposed Manure Storage Facility Dimensions Tables (if applicable)  Manure Application Field Characteristics Table  Crop Rotation Table  Recent manure application field soil sample results (Nitrate- N lb/ac at 0-6 and 6-24 inch depths, Phosphorus – ppm at 0-6 inch depth)  Land Base Calculator  Project Site Plan (proposed operation showing current and proposed structures)  Land Use and Spread Field Map (location and ownership of operation, spread fields, location and distance to non-agricultural uses, development plan designation, zoning for project site and spread fields)  Truck Haul Routes and Access Points Map (with routes and access points on municipal/provincial roads and/or provincial trunk highways)  Response from the Conservation Data Centre  Other, please specify:
15.0	Declaration
req	hereby verify that the information contained in the Site Assessment and all uired Supporting Documents is accurate and complete to my knowledge
	nature: South-Man Engineering