

# R.M. OF ALONSA







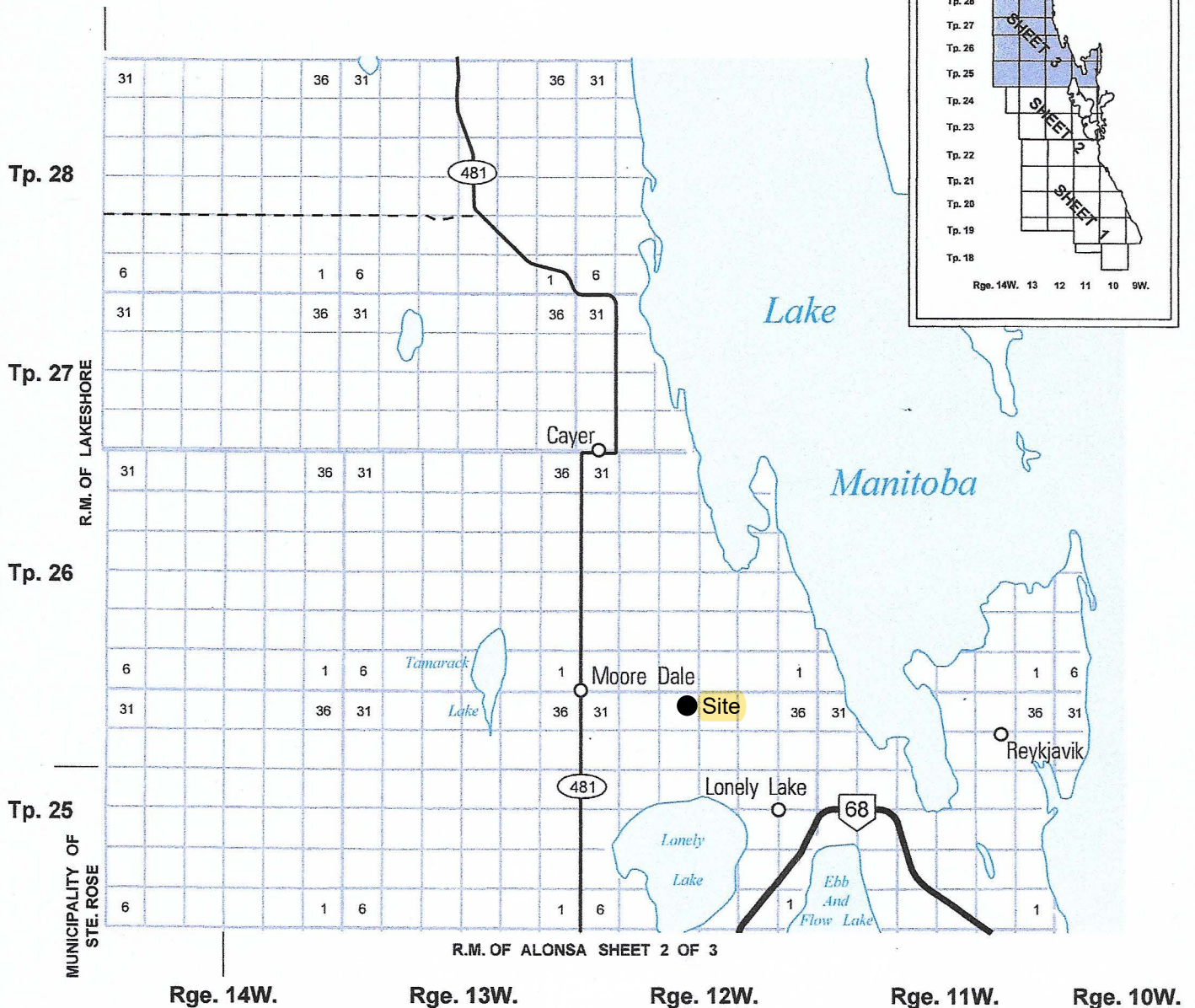
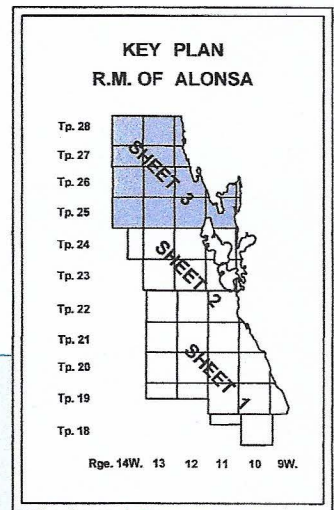
0 5  
SCALE IN KILOMETRES

PROVINCE OF MANITOBA  
INFRASTRUCTURE  
HIGHWAY PLANNING AND DESIGN BRANCH  
GEOGRAPHIC & RECORDS MANAGEMENT SECTION  
WINNIPEG  
JANUARY 1, 2015

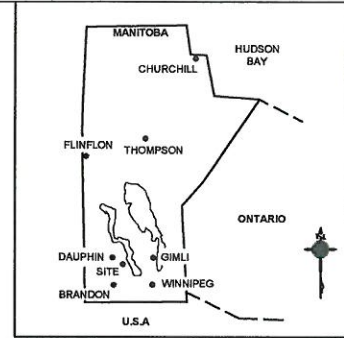
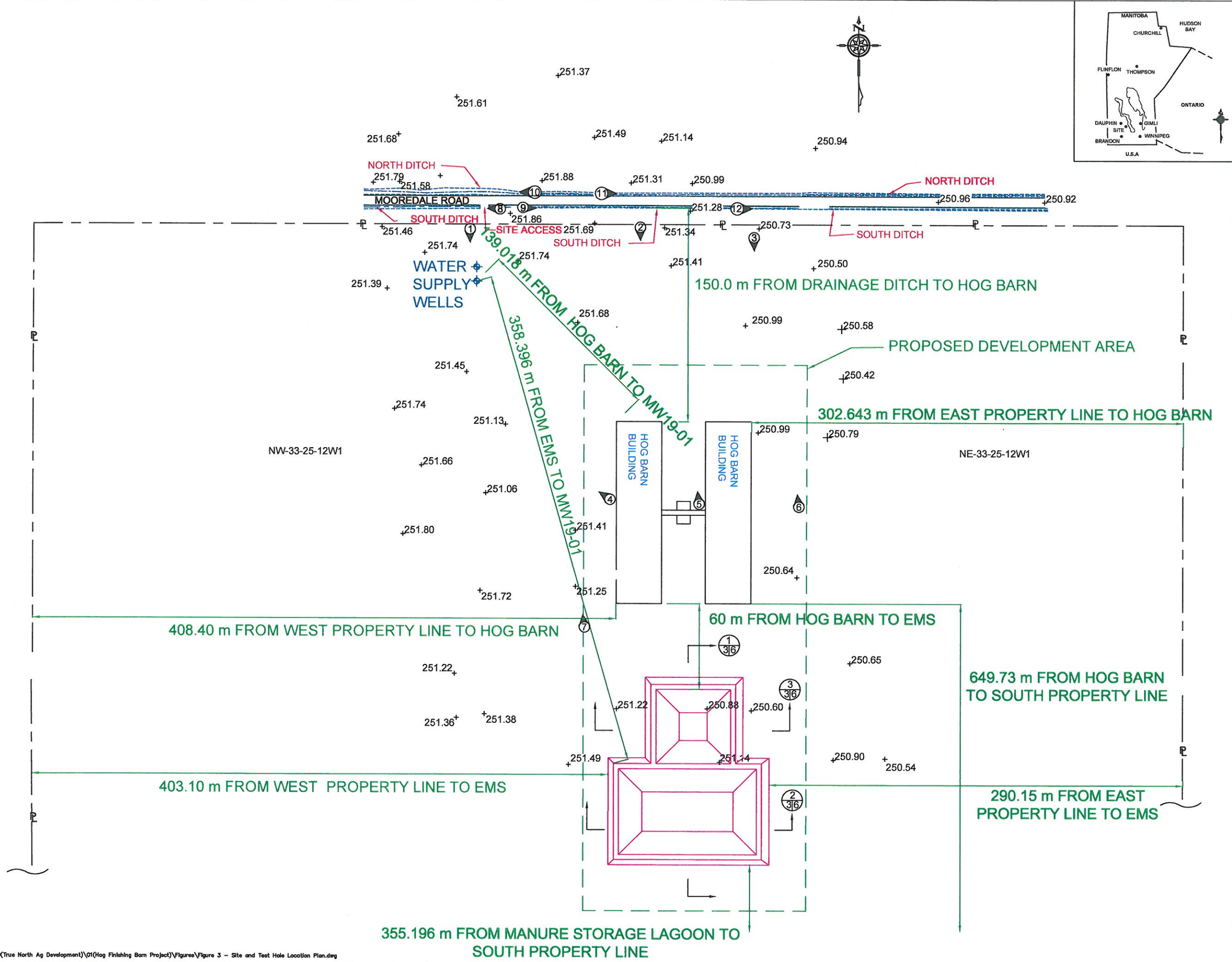
## SITE LOCATION

### LEGEND

- PROVINCIAL TRUNK HIGHWAYS ..... 
- PROVINCIAL ROADS ..... 
- MAIN MARKET ROADS ..... 
- Proposed Site ..... 







**LEGEND**

- TEST HOLE
- SPOT ELEVATION
- PROPERTY LINE
- PHOTOGRAPH AND DIRECTION
- SECTION/DETAIL No.
- SECTION / DETAIL PAGE LOCATION
- SECTION / DETAIL PAGE REFERENCE

**NOTES**

- ALL ELEVATIONS ARE IN METERS UNLESS OTHERWISE NOTED.
- ENG-TECH SURVEYED PROPERTY ON APRIL 24 & 25, 2019 USING GPS SURVEYOR.
- CONTOUR INTERVAL = 0.1 m.
- ALL ELEVATIONS REFERENCED TO GEODETIC BENCHMARK LOCATION ESTABLISHED ON THE SITE. (ELEV. 251.92 m).

NO.	DATE	ISSUE / REVISION
0	JUL 2019	construction

**ENG-TECH CONSULTING LIMITED**  
 420 Turenne Street  
 Winnipeg, MB  
 R2J 3W8  
 Phone: (204) 233-1694  
 Fax: (204) 235-1579

ENG. STAMP:  
  
**ENGINEERS GEOSCIENTISTS MANITOBA**  
 Certificate of Authorization  
 ENG-TECH Consulting Limited  
 No. 2475

CLIENT:  
 TRUE NORTH AG DEVELOPMENT INC.

PROJECT:  
 TRUE NORTH INTRO AND HOG FINISHING BARN PROJECT  
 NE 33-25-12 W1, EDDYSTONE, MB

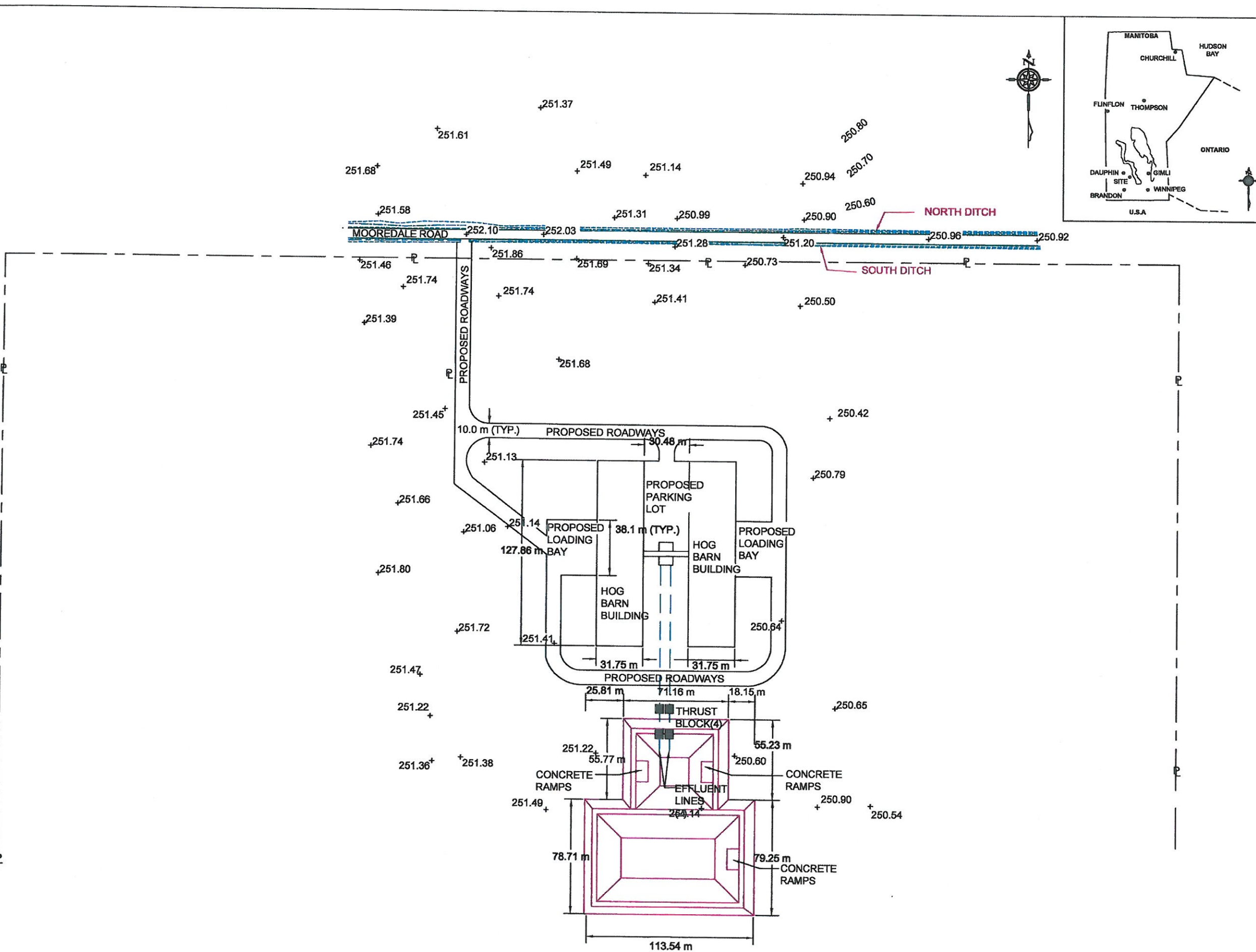
DWG DESCRIPTION:  
 SITE PLAN

SCALE:  
 1:2500

DRAWN BY: TDR DATE: JULY 2019

FILE No.: 19-130-01 CLIENT DWG/FIG. No.:

ENG-TECH DWG/FIG. No.: 3 OF 9 NO.:



**LEGEND**

	SPOT ELEVATION
	PROPERTY LINE

**NOTES**

- ALL ELEVATIONS ARE IN METERS UNLESS OTHERWISE NOTED.
- ENG-TECH SURVEYED PROPERTY ON APRIL 24 & 25, 2019 USING GPS SURVEYOR.
- ALL ELEVATIONS REFERENCED TO GEODETIC BENCHMARK LOCATION ESTABLISHED ON THE SITE. (ELEV. 251.92 m).

NO.	DATE	ISSUE / REVISION
0	JUL 2019	construction

**ENG-TECH CONSULTING LIMITED**  
 420 Turenne Street  
 Winnipeg, MB  
 R2J 3W8  
 Phone: (204) 233-1694  
 Fax: (204) 235-1579

ENG. STAMP:  
  
**ENGINEERS  
 GEOSCIENTISTS  
 MANITOBA**  
 Certificate of Authorization  
 ENG-TECH Consulting Limited  
 No. 2475

CLIENT:  
 TRUE NORTH AG DEVELOPMENT INC.

PROJECT:  
 GEOTECHNICAL INVESTIGATION HOG BARN MANURE STORAGE LAGOON AND BUILDING, NE 33-25-12 W1, MB

DWG DESCRIPTION:  
 SITE AND ROADWAY LAYOUT PLAN

SCALE:  
 1:2500

DRAWN BY: TDR	DATE: JULY 2019
FILE No.:	CLIENT DWG/FIG. No.:

19-130-01	ENG-TECH DWG/FIG. No.:	NO.:
-----------	------------------------	------



1a - Pigs

Operation Name: EFJV

Operation Type	Storage Type	Volatilization	Animal Numbers (Places)	Average Animal Wt (lb)	N Excreted Per Herd Adjusted for Storage N Loss (lb/yr/herd)	P2O5 Excreted Per Herd Per Year (lb/yr/herd)
Boars (Purchased)	Liquid Uncovered Earthen	30%		465	0	0
Weanlings	Liquid Uncovered Earthen	30%	9600	38	0	0
Growers/Finishers	Liquid Uncovered Earthen	30%		171	248730	122889
Sows, farrow to 6.2 kg	Liquid Uncovered Earthen	30%		n/a	0	0
Sows, farrow to 28 kg	Liquid Uncovered Earthen	30%		n/a	0	0
Sows, farrow to finish	Liquid Uncovered Earthen	30%		n/a	0	0

Last Revised April 26, 2018



**2 - Crop Rotation**

Operation Name:

EFJV

Crop	Removal		Uptake		Yield	Units	Acreage	Removal		Uptake
	P2O5	N	N	Units				P2O5 (lb)	N (lb)	
Alfalfa	13.8	58	58	lb/ton		ton/ac		-	-	-
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	30.5	bu/ac	1600	50752	94184	155672
Corn Grain	0.44	0.97	1.53	lb/bu		bu/ac		-	-	-
Corn Silage	12.7	31.2	31.2	lb/ton	4.0726	tons/ac	209	10810	26557	26557
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		tons/ac		-	-	-
Lentils	1.03	3.39	5.08	lb/cwt		cwt/ac		-	-	-
Oats	0.26	0.62	1.07	lb/bu	65.6	bu/ac	292	4980	11876	20496
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		bu/ac		-	-	-
Sunflower	1.1	2.8		lb/cwt		cwt/ac		-	-	-
Wheat - Spring	0.59	1.5	2.11	lb/bu	42.2	bu/ac	552	13744	34942	49151
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac		-	-	-
<b>Total Acres</b>							2653	80286	167558	251876
<b>Estimated Average Removal/Uptake (lb/ac)</b>								30.3	63.2	94.9
<b>Acres in Hanover and La Broquerie</b>										
<b>Proportion in Hanover or La Broquerie</b>							0%			
<b>Additional Acres</b>							1595			
<b>Crop Planned on Additional Acres</b>							wheat, canola, silage corn, forage oats			
<b>Total Acreage</b>							4248			

**\*Notes:**

Enter the number of acres that are in the RM's of Hanover or La Broquerie in cell H26.  
 Additional acres include acres for which crop removal or soil data is limited or unavailable.

### 3 - Farm Excretion

Operation Name: EFJV

Species	Animal Category/Operation type	N (lb/year)	P2O5 (lb/year)
<b>Pigs</b>	Boars	0	0
	Weanlings	0	0
	Growers/finishers	248730	122889
	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 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>	Mature Cows, plus assoc livestock	0	0
<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>248730</b>	<b>122889</b>

**Note:**

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



**4 - Land Base Summary****Operation Name:** EFJV

<b>Nutrients Excreted</b>	<b>lbs</b>
Nitrogen	248730
Phosphorus (P2O5)	122889
<b>Crop Nutrient Use</b>	
	<b>lb/ac</b>
Crop N Uptake	94.9
Crop Phosphorus (P2O5) Removal	30.3
Operation-specific Phosphorus (P2O5) Credit	60.5
<b>Land Available</b>	<b>4248</b>
<b>Land Base Required</b>	
	<b>acres</b>
Acres for Nitrogen	<b>2620</b>
Acres for Phosphorus (P2O5)	<b>2030</b>
<b>Phosphorus Balance</b>	
	<b>acres</b>
Acres for Phosphorus Balance (1X)	<b>4061</b>

Last revised October 16, 2018

**CROP ROTATION TABLE**



A	B	C	D	E
Expected Crops in the Rotation	Acreage	Historical Yield	Units	Source of Yield Information
<b>Total Net Acreage for Manure Application</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**



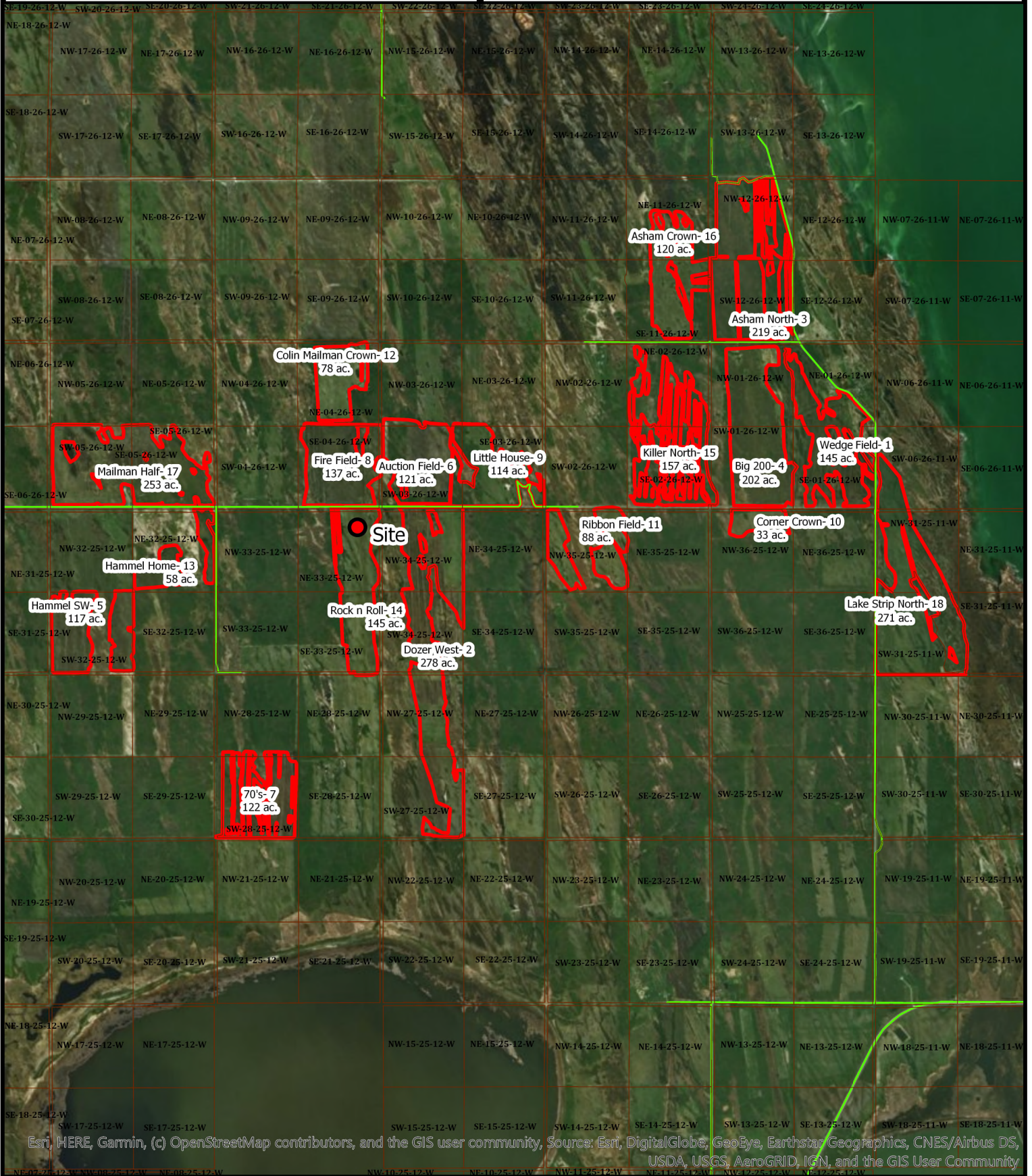
	A	B	C	D	E	F	G	H	I	J
Field	Legal Description	Rural Municipality	O/C/L/A	Total Acreage	Setbacks, including features	Net Acreage for Manure Application	Agriculture Capability Class and Subclass	Soil Phosphorus (ppm Olsen P) 0-6 inches	Development Plan Designation	Zoning
1										
2										
3							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

**Total Net Acreage for Manure Application:**

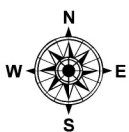
Note: Class 6w has been noted in some of the reconnaissance soil mapping as either 20% or 30% of the polygon. Class 6 land will be excluded from manure application. There are still land improvements (drainage and bush clean up) so determining highly accurate seeded acres was difficult. Having said that only 2620 acres are required for this application and the site has 2653 primary acres and 1595 secondary acres for a total of 4248 acres.

- 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).

# EFJV - Spread Fields

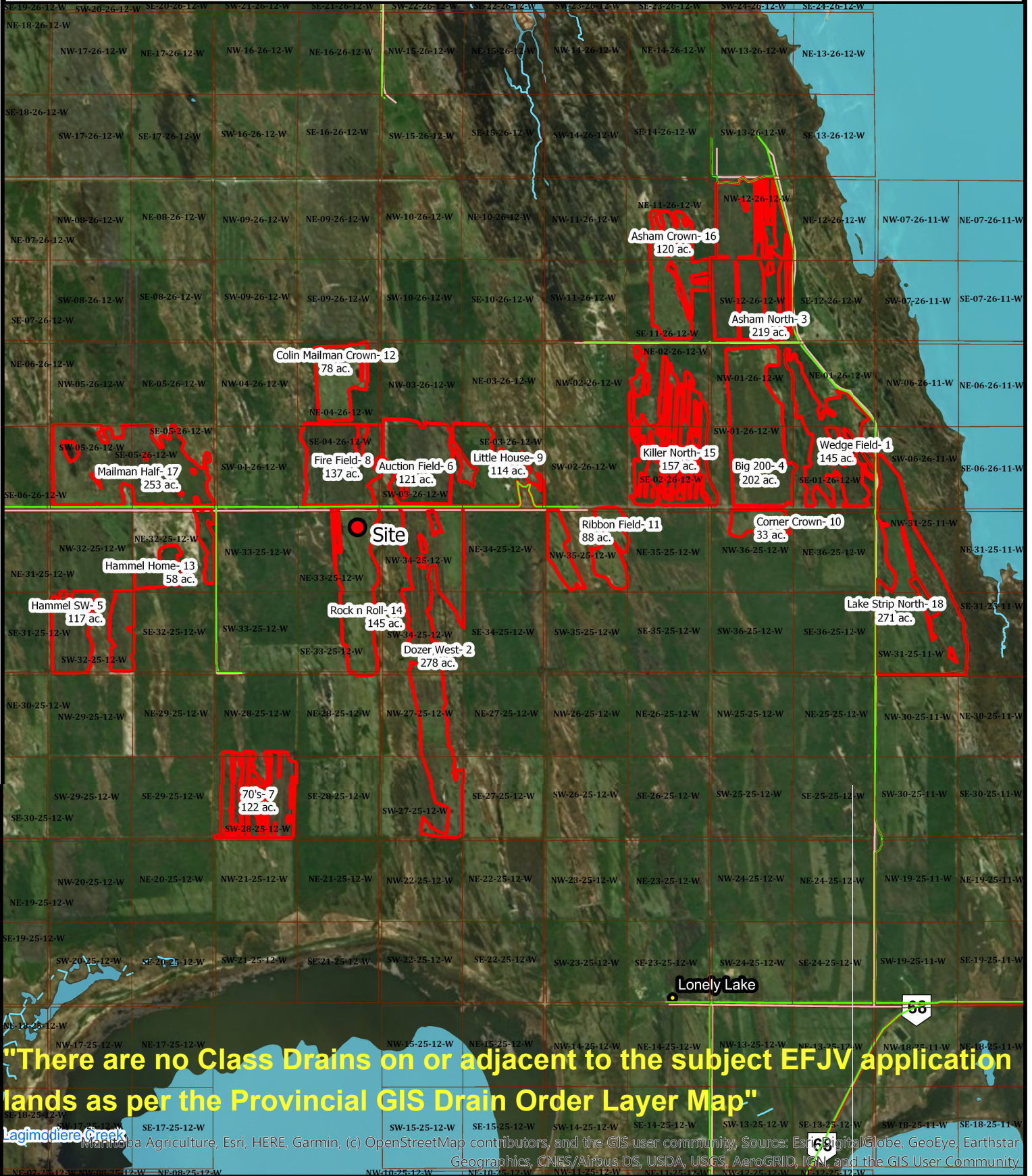


Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



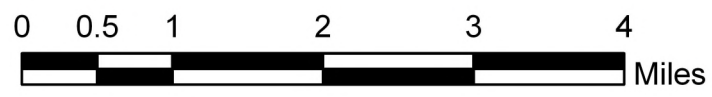
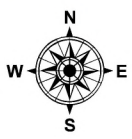


# EFJV - Drains



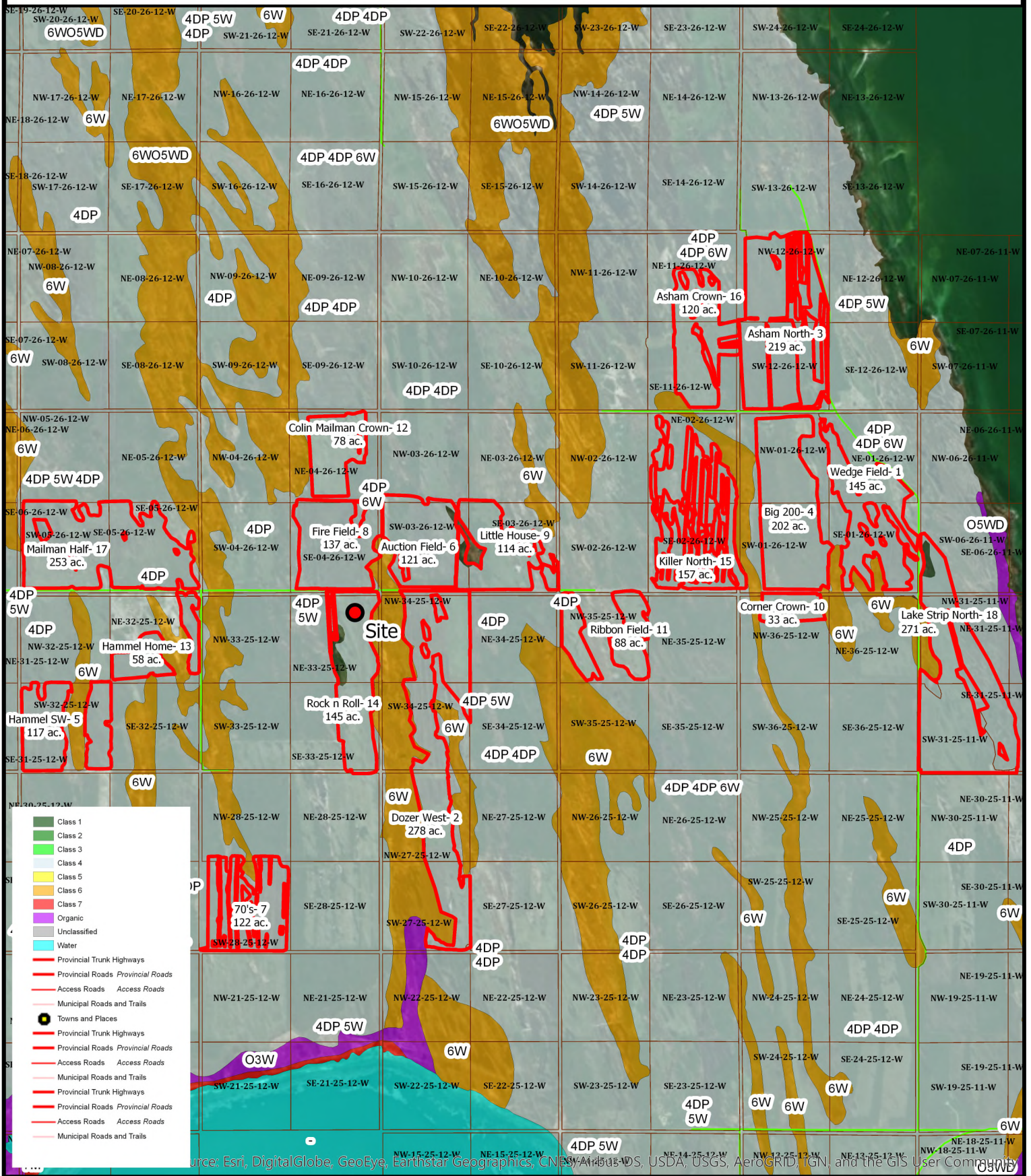
**"There are no Class Drains on or adjacent to the subject EFJV application lands as per the Provincial GIS Drain Order Layer Map"**

Map data provided by Esri, DeLorme, Garmin, and the GIS user community. Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

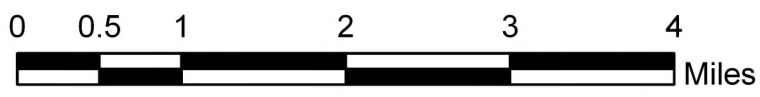




# EFJV - Soils

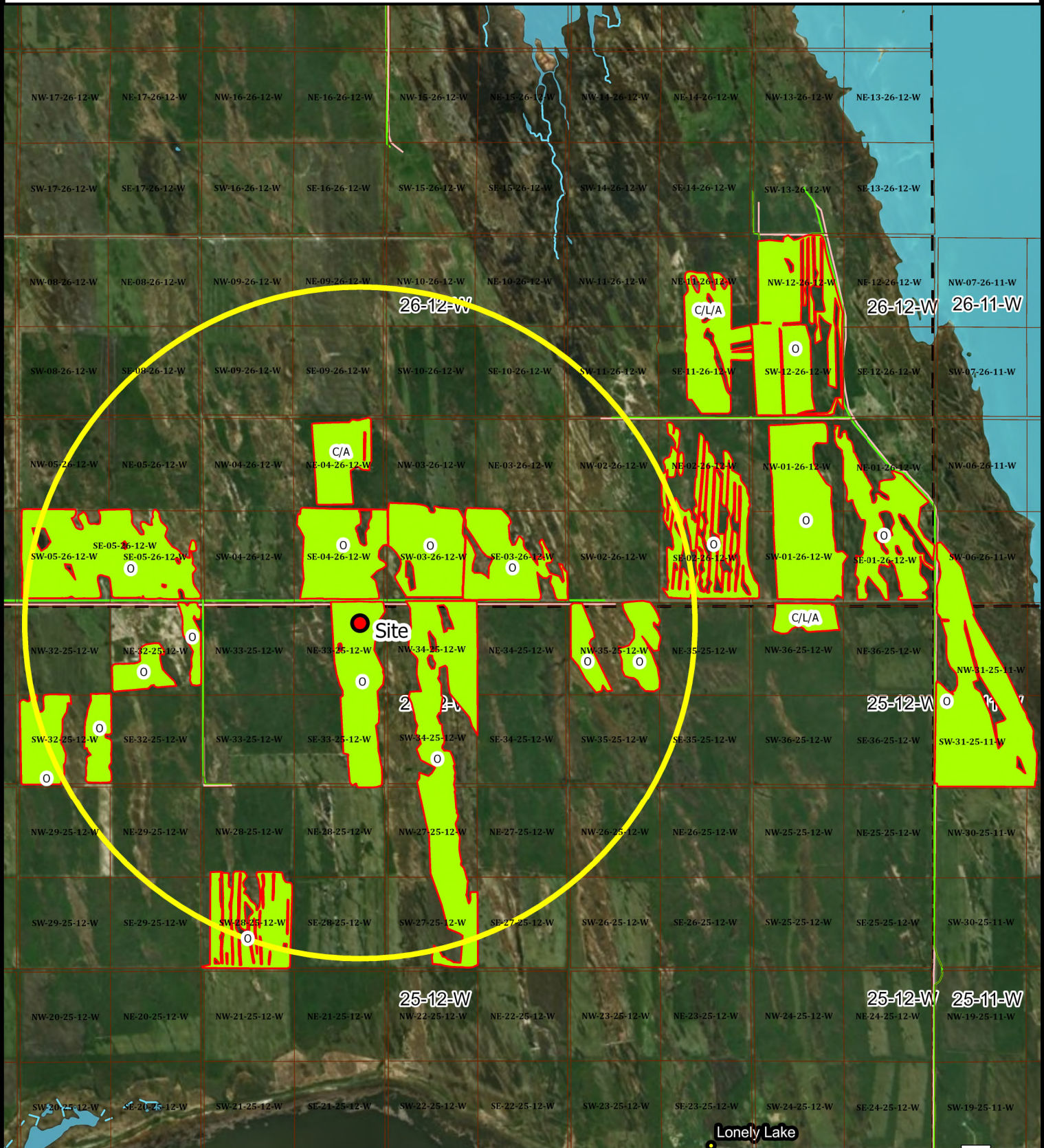


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

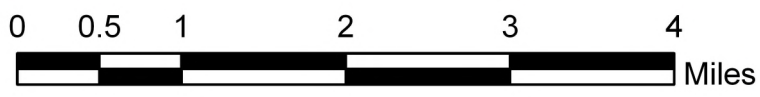
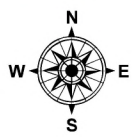




# EFJV - Land Use

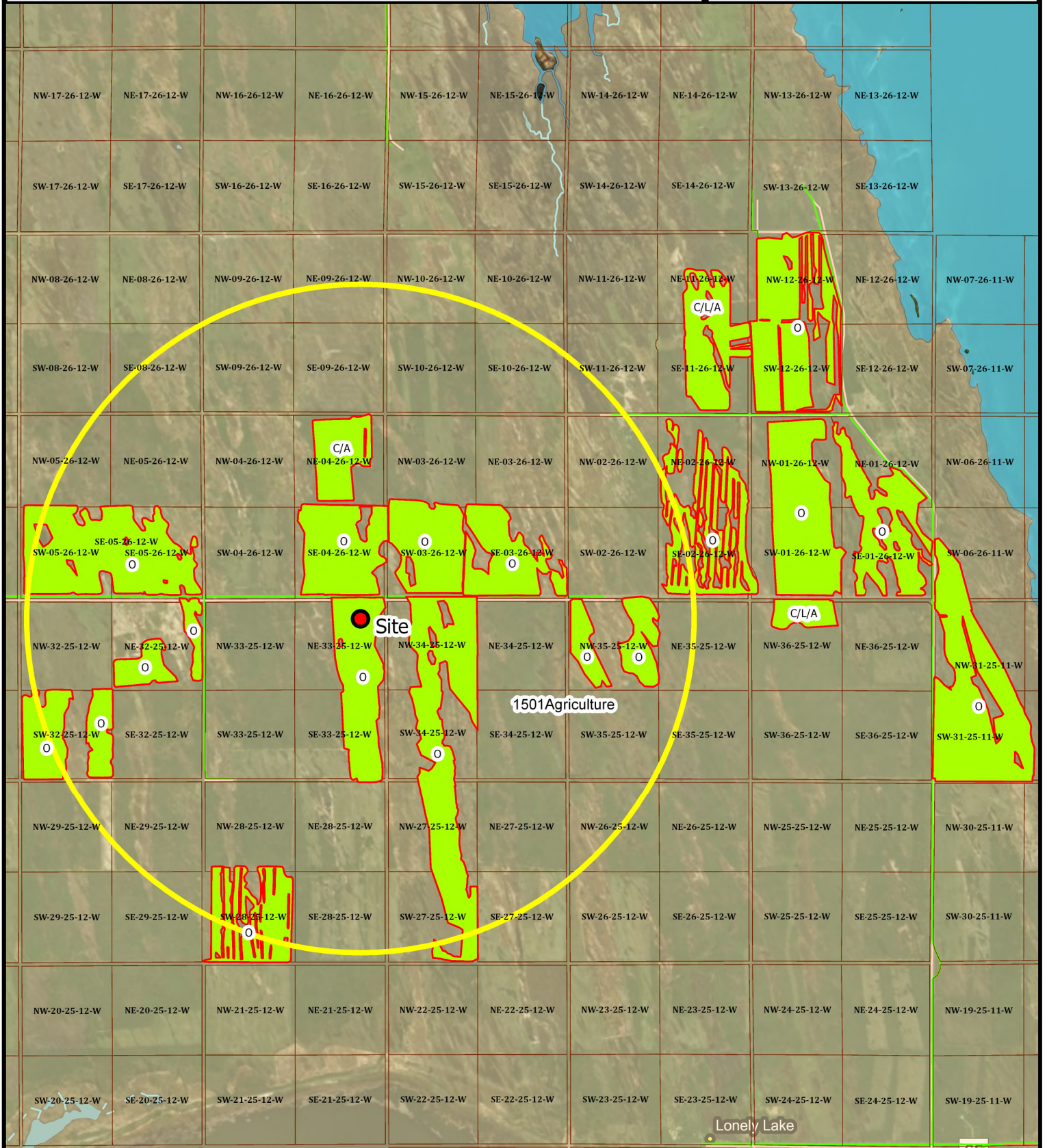


Manitoba Agriculture, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

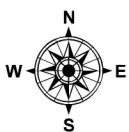




# EFJV - Land Use - Development Plan

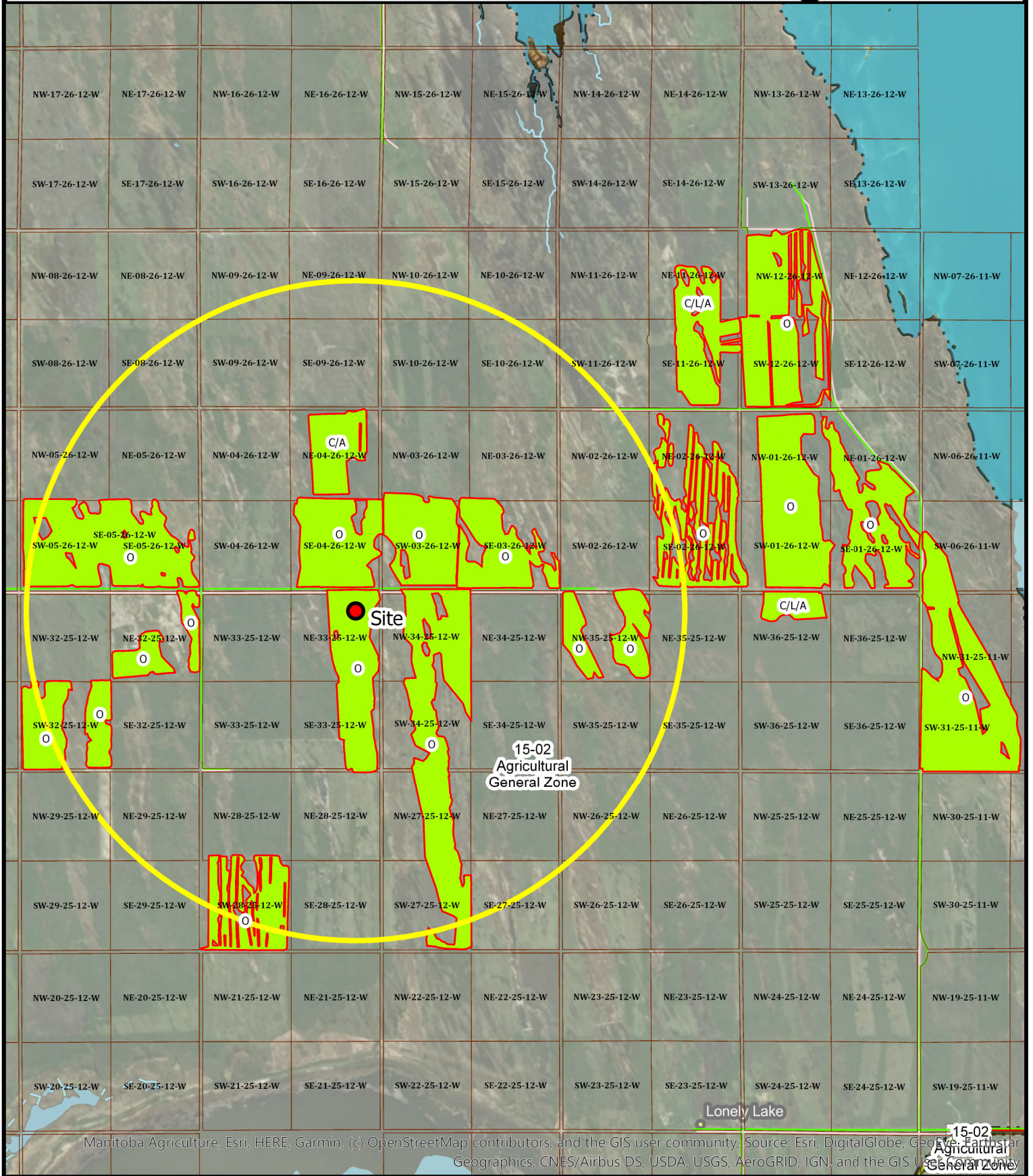


Manitoba Agriculture, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





# EFJV - Land Use - Zoning





# Field 1

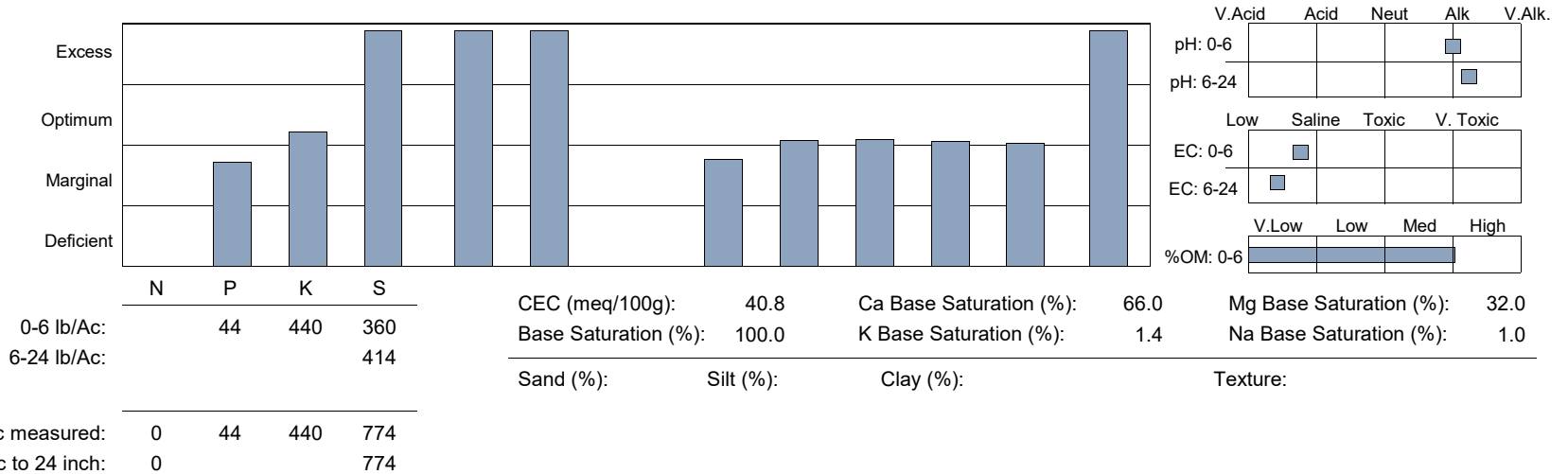
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:** WEDGE FIELD  
**Reference Field Name:** 978700  
**Legal Location:** E 1-26-12 W1  
**Total Acres:** 300  
**Sampler:** MS

**Lot Number:** 181127\_064  
**Date Sampled:** 2018/11/22  
**Received Date:** 2018/11/27  
**Date Reported:** 2018/12/10

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N	P*	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	Cl	pH	EC	OM
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
181127_064-01	0-6		22.0	220	180	5400	1600	98	0.7	1.1	32.0	4.7	1.4	26.0	8.0	1.50	11.0
181127_064-02	6-24				69									28.0	8.5	0.78	



**Recommendation:**

**Comments:** PREVIOUS CROP: CANOLA

\* Bicarbonate-Extractable (Olsen) Phosphate

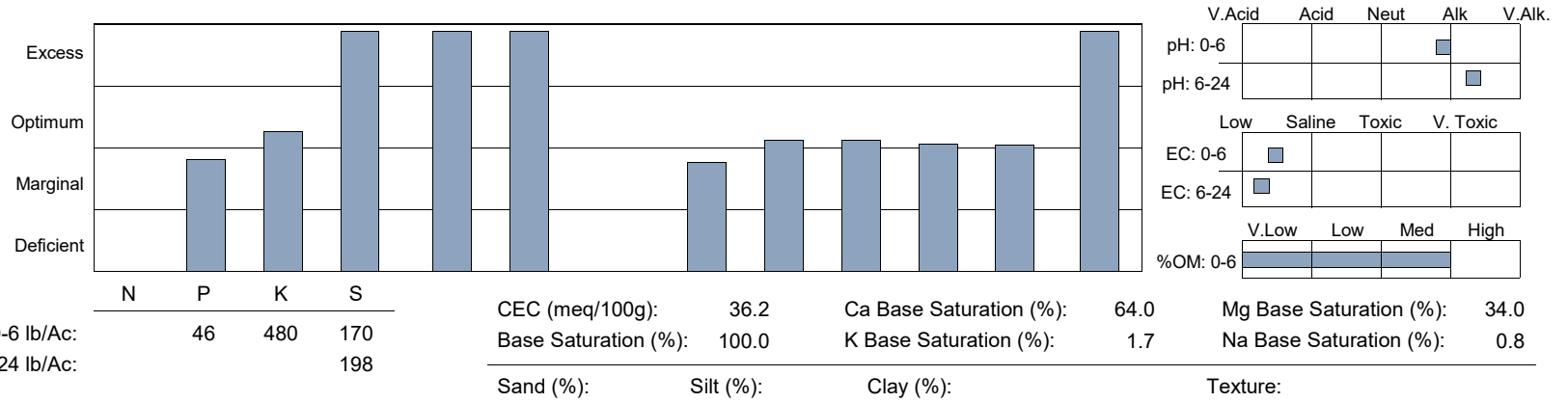
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:**  
**Reference Field Name:** 881463  
**Legal Location:** W 34 and W 27-25-12 W1  
**Total Acres:** 357  
**Sampler:** CORRIE

**Lot Number:** 181127\_049  
**Date Sampled:** 2018/11/22  
**Received Date:** 2018/11/27  
**Date Reported:** 2018/12/10

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N	P*	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	Cl	pH	EC	OM
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
181127_049-01	0-6		23.0	240	85	4600	1500	67	0.7	1.3	40.0	4.5	1.5	40.0	7.9	0.89	8.5
181127_049-02	6-24				33									24.0	8.7	0.46	



Total lb/Ac measured: 0 N, 46 P, 480 K, 368 S  
 Estimated lb/Ac to 24 inch: 0 N, 46 P, 480 K, 368 S

**Recommendation:**  
**Comments:** PREVIOUS CROP:CANOLA  
 \* Bicarbonate-Extractable (Olsen) Phosphate

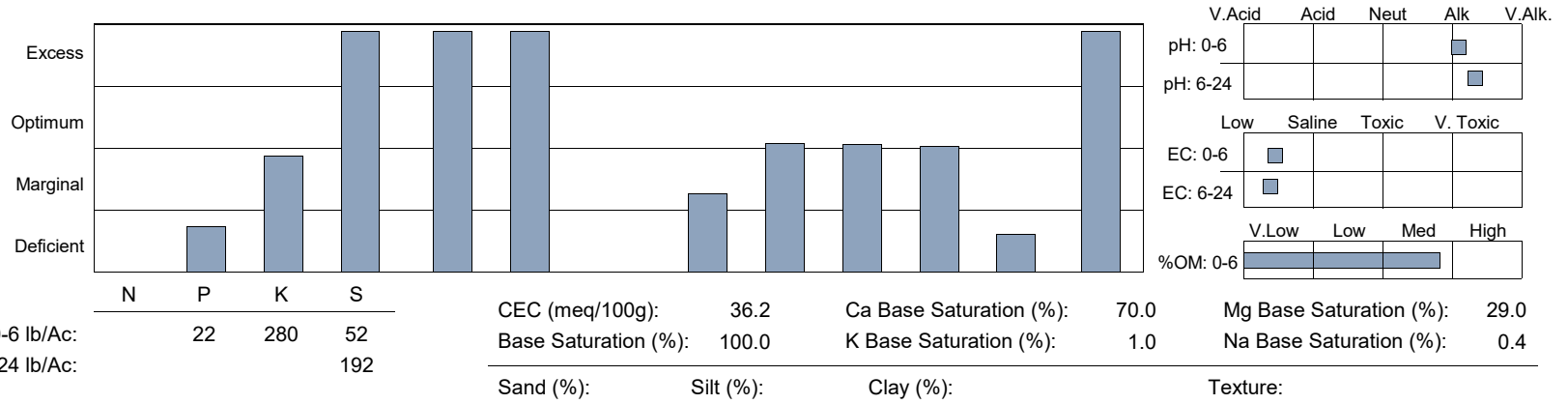
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:**  
**Reference Field Name:** 881421  
**Legal Location:** W 12-26-12 W1  
**Total Acres:** 301  
**Sampler:** MARCO

**Lot Number:** 181127\_033  
**Date Sampled:** 2018/11/22  
**Received Date:** 2018/11/27  
**Date Reported:** 2018/12/10

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N	P*	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	Cl	pH	EC	OM
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
181127_033-01	0-6		11.0	140	26	5100	1300	32	0.5	1.1	26.0	3.0	0.6	18.0	8.2	0.83	7.3
181127_033-02	6-24				32									22.0	8.7	0.69	



Total lb/Ac measured: 0 N, 22 P, 280 K, 244 S  
 Estimated lb/Ac to 24 inch: 0 N, 244 S

Recommendation:	Comments: PREVIOUS CROP:CANOLA
	* Bicarbonate-Extractable (Olsen) Phosphate

**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

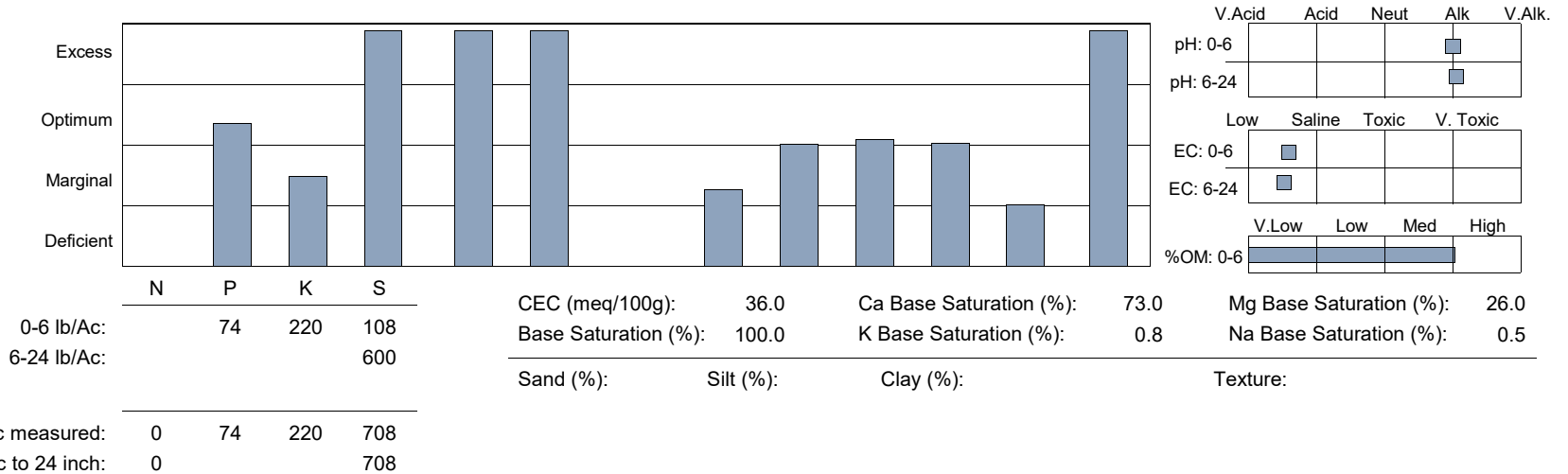
**Grower:** STEVE MANNING  
**Grower Field Name:** BIG 200  
**Reference Field Name:** 881425  
**Legal Location:** W 1-26-12 W1  
**Total Acres:** 320  
**Sampler:** MS

**Lot Number:** 181127\_065  
**Date Sampled:** 2018/11/22  
**Received Date:** 2018/11/27  
**Date Reported:** 2018/12/10

**Attention:** Adam Fordyce

**Client ID:** 09-0020

Sample ID	Depth	N	P*	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	Cl	pH	EC	OM
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
181127_065-01	0-6		37.0	110	54	5200	1100	42	0.5	0.8	32.0	2.7	0.5	11.0	8.0	1.13	11.0
181127_065-02	6-24				100									17.0	8.1	0.98	



**Recommendation:**

**Comments:** PREVIOUS CROP: CWRS

\* Bicarbonate-Extractable (Olsen) Phosphate



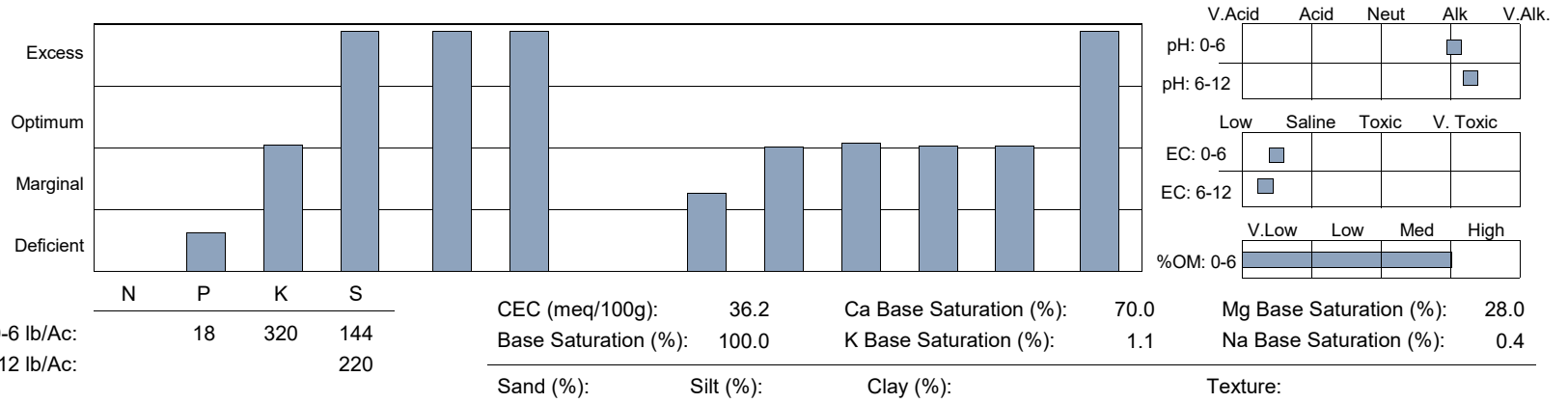
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:** HAMMEL SW  
**Reference Field Name:** 881435  
**Legal Location:** SW 32-25-12 W1  
**Total Acres:** 124  
**Sampler:** JESSICA

**Lot Number:** 181127\_052  
**Date Sampled:** 2018/11/21  
**Received Date:** 2018/11/27  
**Date Reported:** 2019/03/08

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N ppm	P* ppm	K ppm	S ppm	Ca ppm	Mg ppm	Na ppm	B ppm	Cu ppm	Fe ppm	Mn ppm	Zn ppm	Cl ppm	pH	EC dS/m	OM %
181127_052-01	0-6		9.1	160	72	5100	1200	36	0.5	0.8	28.0	3.0	1.3	20.0	8.1	0.94	9.8
181127_052-02	6-12				110									23.0	8.6	0.59	



	N	P	K	S	CEC (meq/100g):	Ca Base Saturation (%):	Mg Base Saturation (%):	Na Base Saturation (%):
0-6 lb/Ac:		18	320	144	36.2	70.0	28.0	0.4
6-12 lb/Ac:				220	100.0	1.1		
<b>Total lb/Ac measured:</b>	0	18	320	364				
<b>Estimated lb/Ac to 24 inch:</b>	0			479				

**Recommendation:**

**Comments:** PREVIOUS CROP:CANOLA

\* Bicarbonate-Extractable (Olsen) Phosphate

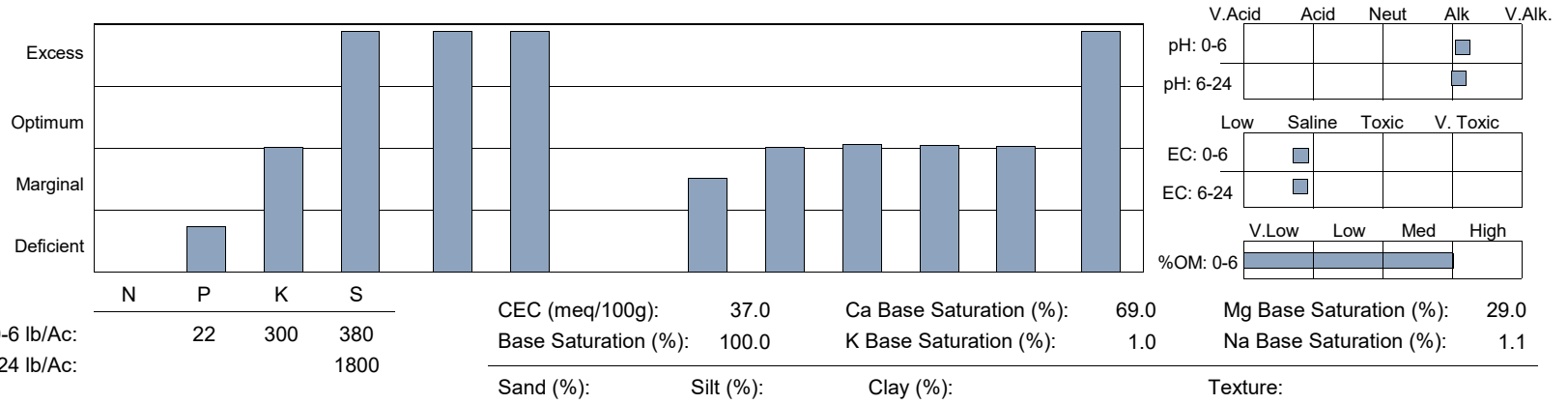
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:**  
**Reference Field Name:** 881423  
**Legal Location:** SW 3-26-12 W1  
**Total Acres:** 134  
**Sampler:** MARCO

**Lot Number:** 181127\_037  
**Date Sampled:** 2018/11/22  
**Received Date:** 2018/11/27  
**Date Reported:** 2018/12/10

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N	P*	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	Cl	pH	EC	OM
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
181127_037-01	0-6		11.0	150	190	5100	1300	95	0.6	0.8	26.0	3.4	1.3	45.0	8.3	1.61	9.1
181127_037-02	6-24				300									60.0	8.2	1.59	



	N	P	K	S
0-6 lb/Ac:		22	300	380
6-24 lb/Ac:				1800
<b>Total lb/Ac measured:</b>	0	22	300	2180
<b>Estimated lb/Ac to 24 inch:</b>	0			2180

<b>Recommendation:</b>	<b>Comments:</b> PREVIOUS CROP:CANOLA
	* Bicarbonate-Extractable (Olsen) Phosphate

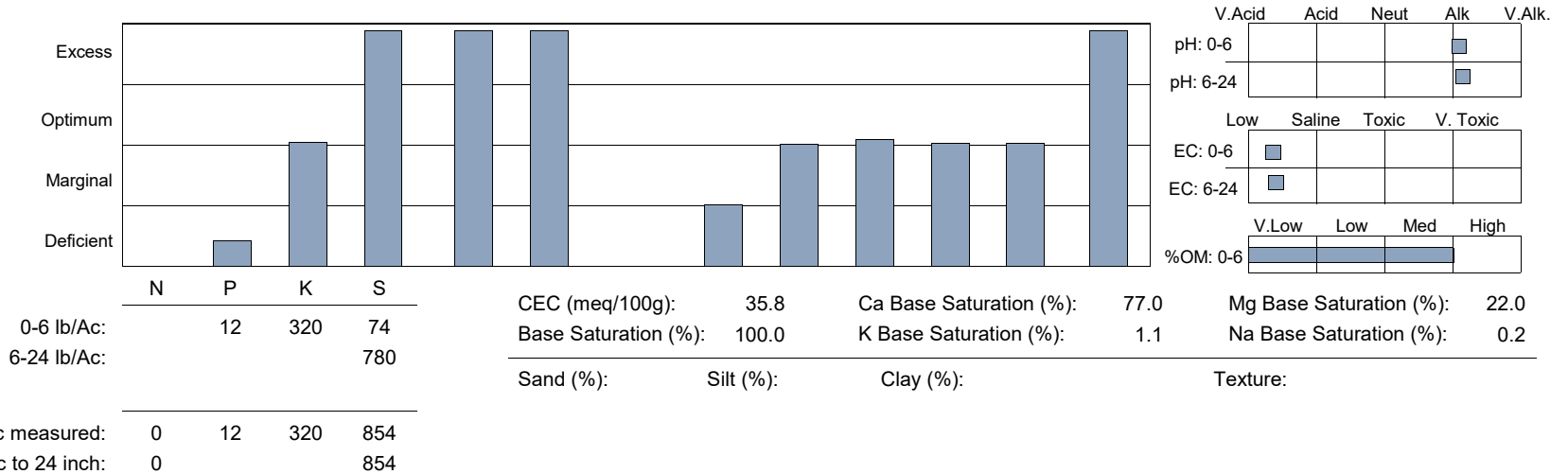
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:**  
**Reference Field Name:** 978654  
**Legal Location:** SW 28-25-12 W1  
**Total Acres:** 140  
**Sampler:** MARCO

**Lot Number:** 181127\_040  
**Date Sampled:** 2018/11/22  
**Received Date:** 2018/11/27  
**Date Reported:** 2018/12/10

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N	P*	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	Cl	pH	EC	OM
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
181127_040-01	0-6		6.1	160	37	5500	960	19	0.4	0.8	32.0	2.7	1.4	25.0	8.2	0.64	9.0
181127_040-02	6-24				130									21.0	8.3	0.74	



**Recommendation:**

**Comments:** PREVIOUS CROP:CANOLA

\* Bicarbonate-Extractable (Olsen) Phosphate

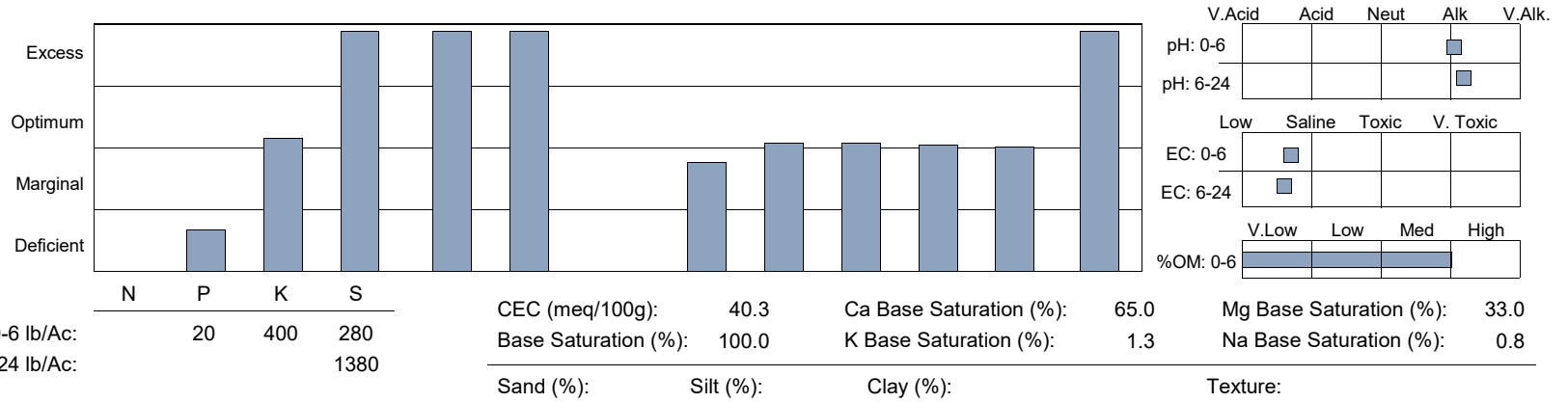
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:**  
**Reference Field Name:** 881431  
**Legal Location:** SE 4-26-12 W1  
**Total Acres:** 145  
**Sampler:** CORRIE

**Lot Number:** 181127\_048  
**Date Sampled:** 2018/11/22  
**Received Date:** 2018/11/27  
**Date Reported:** 2018/12/10

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N	P*	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	Cl	pH	EC	OM
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
181127_048-01	0-6		10.0	200	140	5300	1600	75	0.7	1.1	29.0	3.7	1.1	32.0	8.1	1.36	9.9
181127_048-02	6-24				230									19.0	8.4	1.16	



0-6 lb/Ac:	N	P	K	S	CEC (meq/100g):	40.3	Ca Base Saturation (%):	65.0	Mg Base Saturation (%):	33.0
6-24 lb/Ac:		20	400	280	Base Saturation (%):	100.0	K Base Saturation (%):	1.3	Na Base Saturation (%):	0.8
				1380	Sand (%):		Silt (%):		Clay (%):	Texture:
Total lb/Ac measured:	0	20	400	1660						
Estimated lb/Ac to 24 inch:	0			1660						

<b>Recommendation:</b>	<b>Comments:</b> PREVIOUS CROP: CANOLA
	* Bicarbonate-Extractable (Olsen) Phosphate

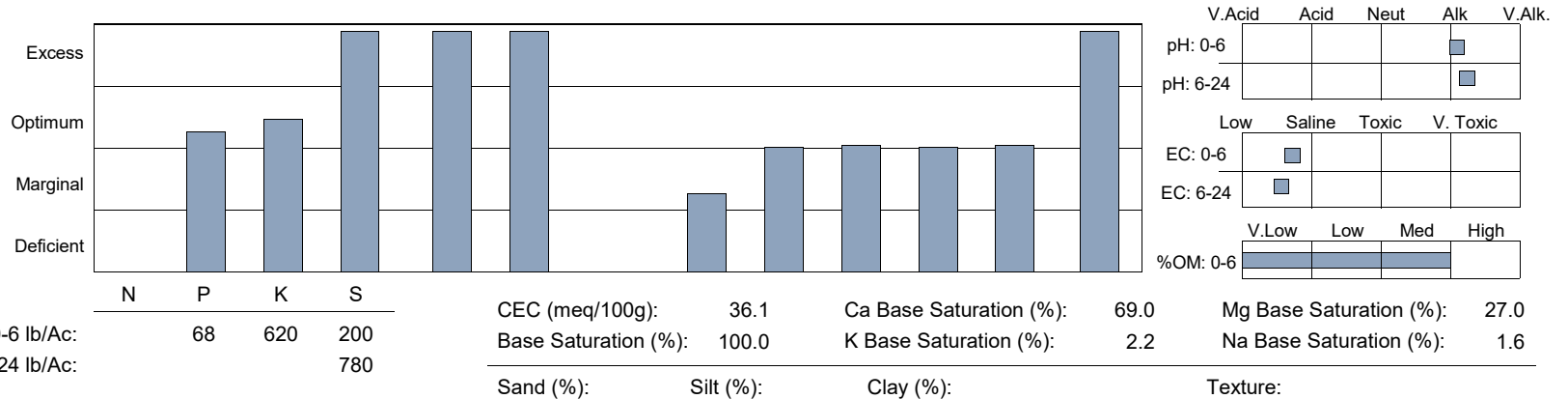
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:**  
**Reference Field Name:** 881441  
**Legal Location:** SE 3-26-12 W1  
**Total Acres:** 143  
**Sampler:** MARCO

**Lot Number:** 181127\_036  
**Date Sampled:** 2018/11/22  
**Received Date:** 2018/11/27  
**Date Reported:** 2018/12/10

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N	P*	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	Cl	pH	EC	OM
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
181127_036-01	0-6		34.0	310	100	5000	1200	130	0.5	0.8	21.0	2.3	1.6	130.0	8.2	1.41	8.1
181127_036-02	6-24				130									150.0	8.5	1.08	



Total lb/Ac measured: 0 N, 68 P, 620 K, 980 S  
 Estimated lb/Ac to 24 inch: 0 N, 68 P, 620 K, 980 S

Recommendation:	Comments: PREVIOUS CROP: CANOLA
	* Bicarbonate-Extractable (Olsen) Phosphate



# Field 10

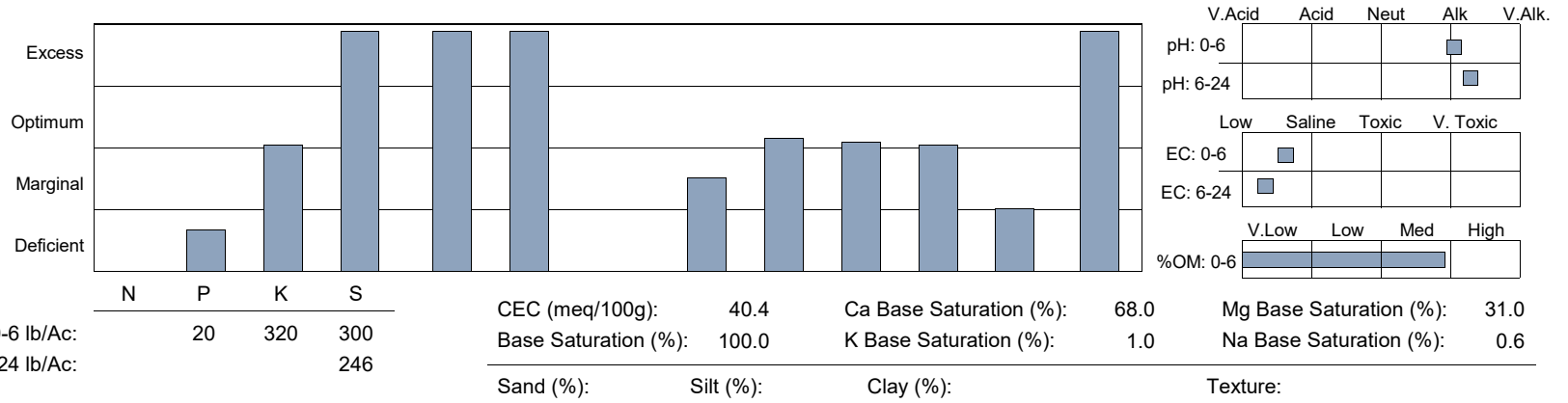
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:** CORNER CROWN  
**Reference Field Name:** 881427  
**Legal Location:** NW 36-25-12 W11  
**Total Acres:** 33  
**Sampler:** MS

**Lot Number:** 181127\_063  
**Date Sampled:** 2018/11/21  
**Received Date:** 2018/11/27  
**Date Reported:** 2018/12/10

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N	P*	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	Cl	pH	EC	OM
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
181127_063-01	0-6		10.0	160	150	5500	1500	56	0.6	1.4	32.0	3.8	0.5	15.0	8.1	1.20	7.7
181127_063-02	6-24				41									18.0	8.6	0.59	



Recommendation:	Comments: PREVIOUS CROP: CWRS
	* Bicarbonate-Extractable (Olsen) Phosphate

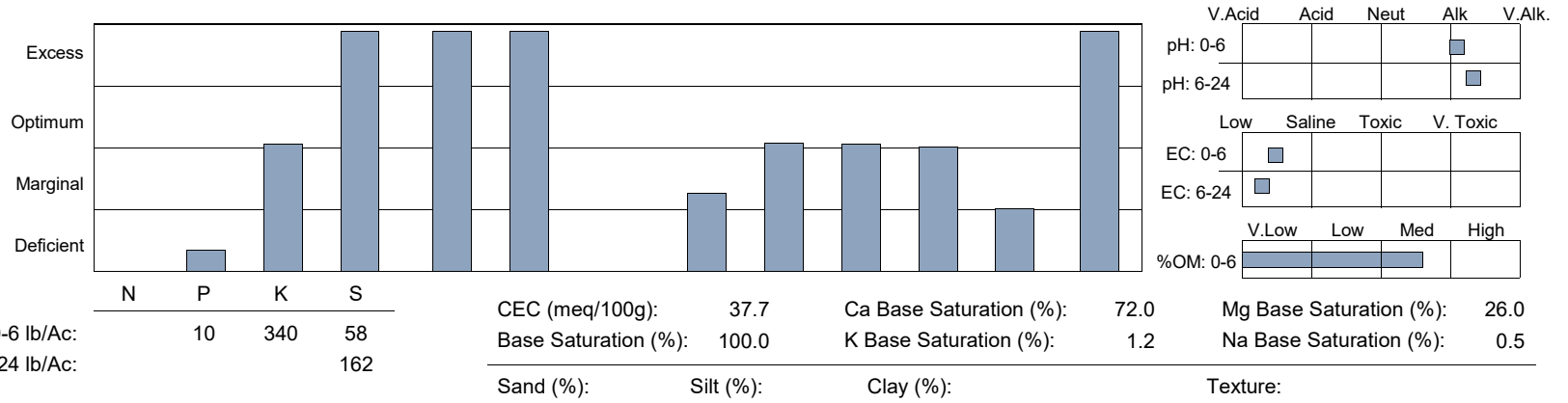
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:**  
**Reference Field Name:** 881443  
**Legal Location:** NW 35-25-12 W1  
**Total Acres:** 101  
**Sampler:** MARCO

**Lot Number:** 181127\_035  
**Date Sampled:** 2018/11/22  
**Received Date:** 2018/11/27  
**Date Reported:** 2018/12/10

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N	P*	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	Cl	pH	EC	OM
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
181127_035-01	0-6		5.2	170	29	5500	1200	47	0.5	1.1	27.0	2.3	0.5	35.0	8.2	0.89	6.4
181127_035-02	6-24				27									40.0	8.7	0.49	



Total lb/Ac measured: 0 N, 10 P, 340 K, 220 S  
 Estimated lb/Ac to 24 inch: 0 N, 10 P, 340 K, 220 S

Recommendation:	Comments: PREVIOUS CROP:CANOLA
	* Bicarbonate-Extractable (Olsen) Phosphate

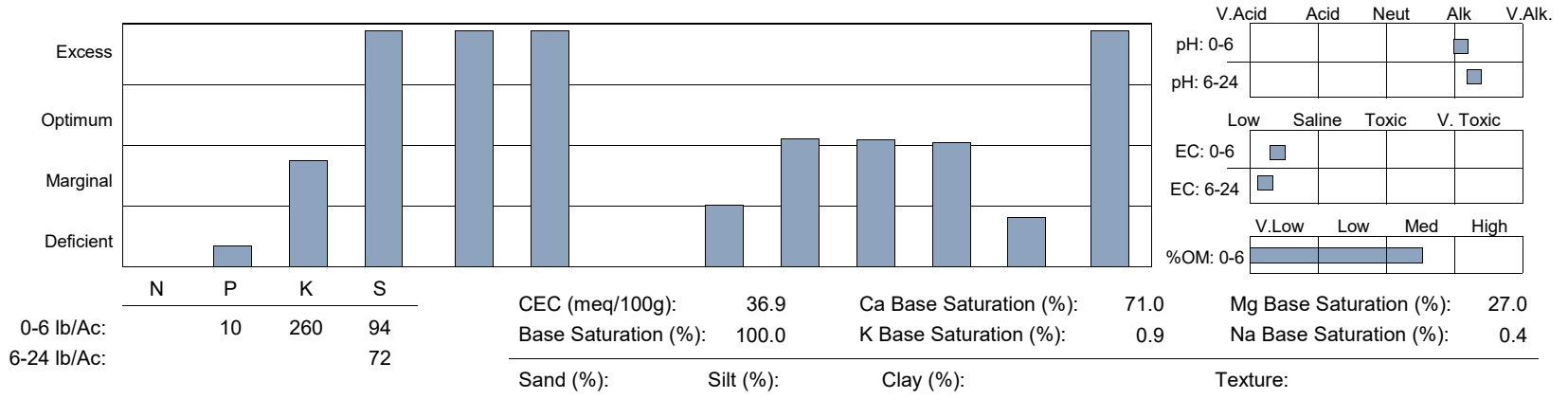
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:** COLIN MAILMAN CROWN  
**Reference Field Name:** 978638  
**Legal Location:** NE 4-26-12 W1  
**Total Acres:** 79  
**Sampler:** MARCO

**Lot Number:** 181127\_039  
**Date Sampled:** 2018/11/22  
**Received Date:** 2018/11/27  
**Date Reported:** 2018/12/10

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N ppm	P* ppm	K ppm	S ppm	Ca ppm	Mg ppm	Na ppm	B ppm	Cu ppm	Fe ppm	Mn ppm	Zn ppm	Cl ppm	pH	EC dS/m	OM %
181127_039-01	0-6		4.9	130	47	5300	1200	38	0.4	1.2	35.0	3.3	0.4	19.0	8.2	0.74	6.1
181127_039-02	6-24				12									11.0	8.6	0.35	



Total lb/Ac measured:	0	10	260	166
Estimated lb/Ac to 24 inch:	0			166

**Recommendation:**

**Comments:** PREVIOUS CROP:CANOLA

\* Bicarbonate-Extractable (Olsen) Phosphate

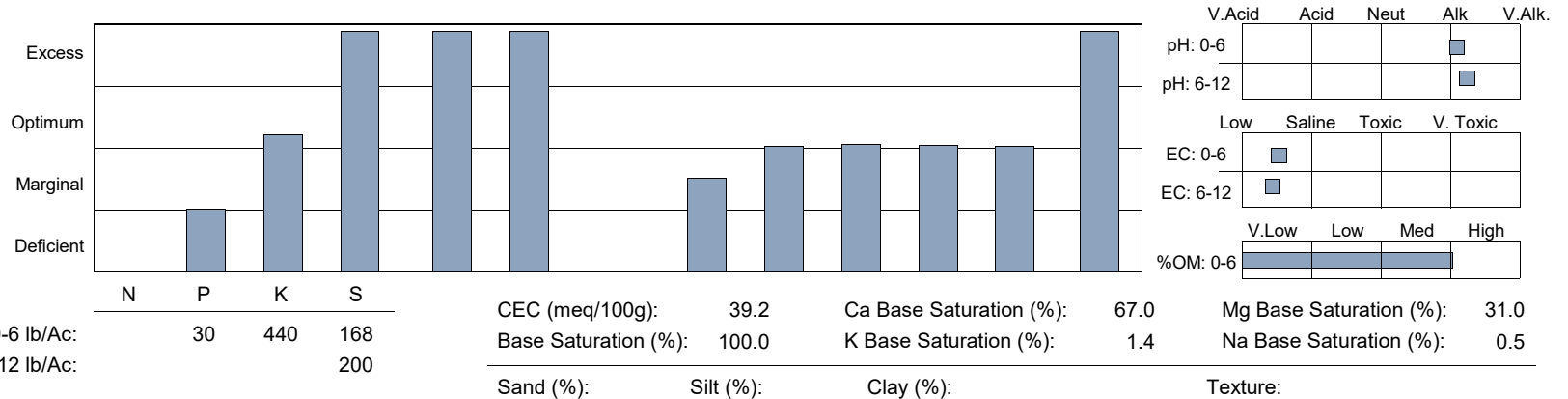
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:** HAMMEL HOME  
**Reference Field Name:** 881433  
**Legal Location:** NE 32-25-12 W1  
**Total Acres:** 69  
**Sampler:** JESSICA

**Lot Number:** 181127\_053  
**Date Sampled:** 2018/11/21  
**Received Date:** 2018/11/27  
**Date Reported:** 2018/12/10

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N ppm	P* ppm	K ppm	S ppm	Ca ppm	Mg ppm	Na ppm	B ppm	Cu ppm	Fe ppm	Mn ppm	Zn ppm	Cl ppm	pH	EC dS/m	OM %
181127_053-01	0-6		15.0	220	84	5300	1500	42	0.6	0.9	23.0	3.4	1.2	27.0	8.2	1.00	11.0
181127_053-02	6-12				100									18.0	8.5	0.81	



Total lb/Ac measured: 0 N, 30 P, 440 K, 368 S  
 Estimated lb/Ac to 24 inch: 0 N, 30 P, 440 K, 484 S

**Recommendation:**

**Comments:** PREVIOUS CROP: CANOLA

\* Bicarbonate-Extractable (Olsen) Phosphate



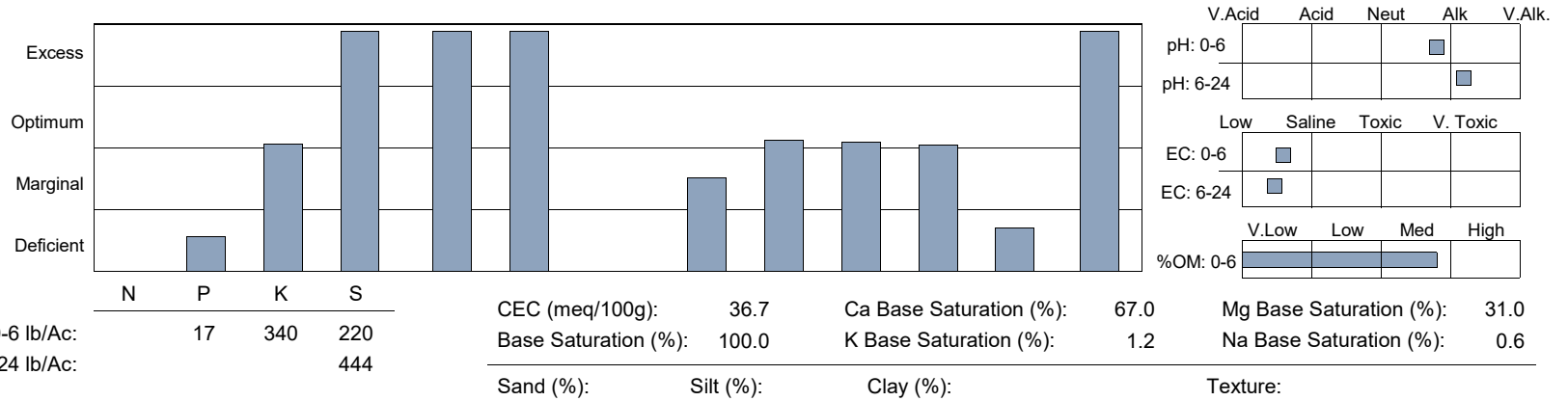
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:**  
**Reference Field Name:** 881445  
**Legal Location:** E 33-25-12 W1  
**Total Acres:** 170  
**Sampler:** MARCO

**Lot Number:** 181127\_038  
**Date Sampled:** 2018/11/22  
**Received Date:** 2018/11/27  
**Date Reported:** 2018/12/10

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N	P*	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	Cl	pH	EC	OM
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
181127_038-01	0-6		8.3	170	110	4900	1400	54	0.6	1.3	34.0	3.3	0.7	36.0	7.8	1.12	7.2
181127_038-02	6-24				74									25.0	8.4	0.86	



Total lb/Ac measured: 0 N, 17 P, 340 K, 664 S  
 Estimated lb/Ac to 24 inch: 0 N, 664 S

Recommendation:	Comments: PREVIOUS CROP:CANOLA
	* Bicarbonate-Extractable (Olsen) Phosphate

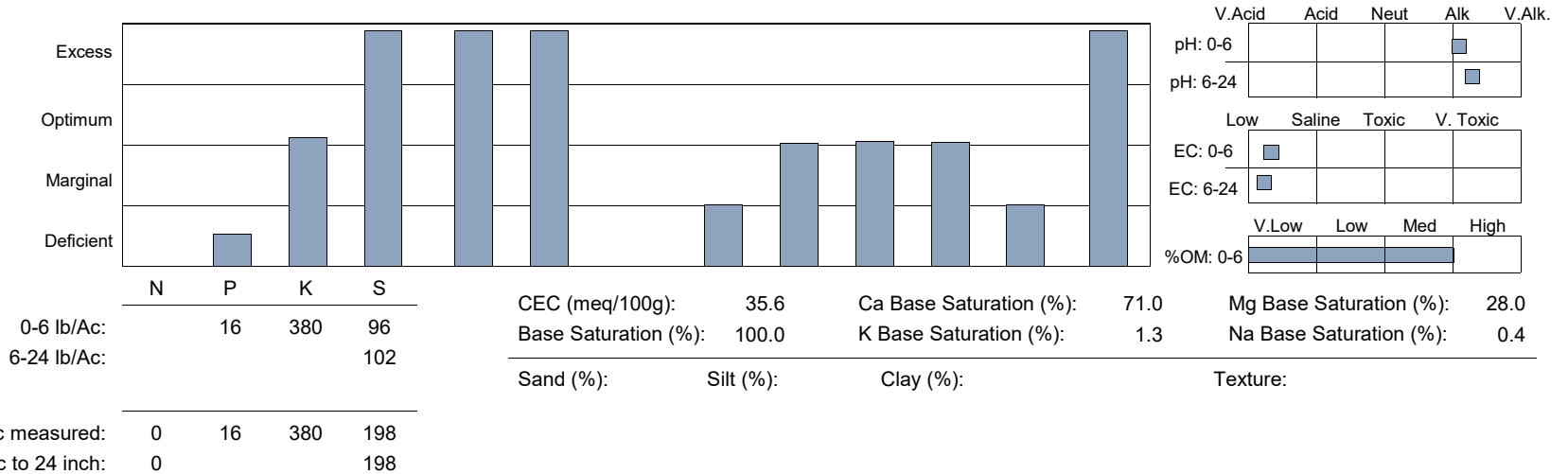
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:**  
**Reference Field Name:** 978707  
**Legal Location:** E 2-26-12 W1  
**Total Acres:** 157  
**Sampler:** MARCO

**Lot Number:** 181127\_032  
**Date Sampled:** 2018/11/22  
**Received Date:** 2018/11/27  
**Date Reported:** 2018/12/10

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N	P*	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	Cl	pH	EC	OM
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
181127_032-01	0-6		7.9	190	48	5000	1200	32	0.4	0.9	22.0	3.2	1.0	25.0	8.2	0.59	9.1
181127_032-02	6-24				17									12.0	8.6	0.37	



<b>Recommendation:</b>	<b>Comments:</b> PREVIOUS CROP:CANOLA
	* Bicarbonate-Extractable (Olsen) Phosphate

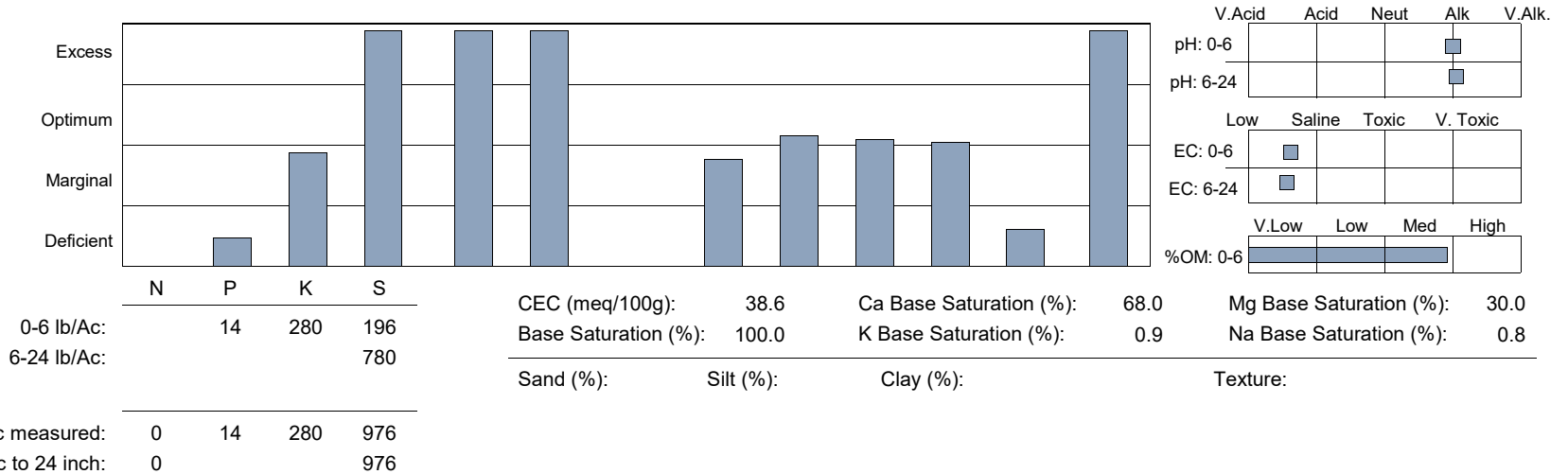
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:**  
**Reference Field Name:** 881419  
**Legal Location:** E 11-26-12 W1  
**Total Acres:** 131  
**Sampler:** MARCO

**Lot Number:** 181127\_034  
**Date Sampled:** 2018/11/22  
**Received Date:** 2018/11/27  
**Date Reported:** 2018/12/10

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N	P*	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	Cl	pH	EC	OM
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
181127_034-01	0-6		6.9	140	98	5300	1400	75	0.7	1.4	35.0	3.4	0.6	21.0	8.0	1.19	7.7
181127_034-02	6-24				130									38.0	8.1	1.07	



<b>Recommendation:</b>	<b>Comments:</b> PREVIOUS CROP:CANOLA
	* Bicarbonate-Extractable (Olsen) Phosphate



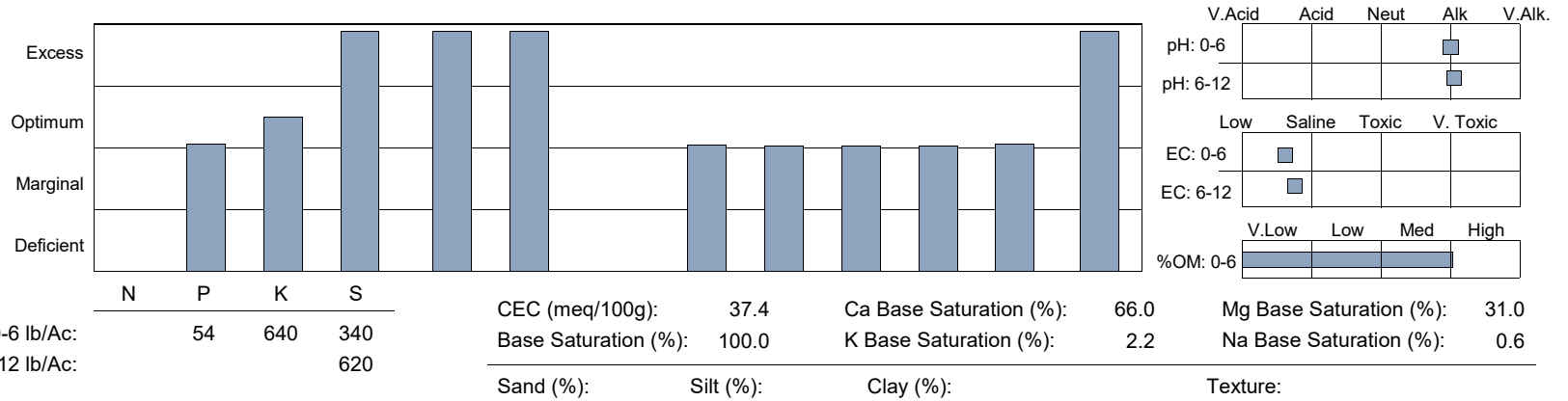
**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:** MAILMAN 1/2  
**Reference Field Name:** 881459  
**Legal Location:** S 5-26-12 W1  
**Total Acres:** 247  
**Sampler:** JESSICA

**Lot Number:** 181127\_051  
**Date Sampled:** 2018/11/21  
**Received Date:** 2018/11/27  
**Date Reported:** 2019/03/08

**Attention:** Adam Fordyce  
**Client ID:** 09-0020

Sample ID	Depth	N ppm	P* ppm	K ppm	S ppm	Ca ppm	Mg ppm	Na ppm	B ppm	Cu ppm	Fe ppm	Mn ppm	Zn ppm	Cl ppm	pH	EC dS/m	OM %
181127_051-01	0-6		27.0	320	170	5000	1400	54	0.9	0.9	17.0	3.0	2.1	31.0	8.0	1.18	11.0
181127_051-02	6-12				310									26.0	8.1	1.48	



Total lb/Ac measured:	0	54	640	960
Estimated lb/Ac to 24 inch:	0			1263

**Recommendation:**

**Comments:** PREVIOUS CROP: CANOLA

\* Bicarbonate-Extractable (Olsen) Phosphate

**Report To:** Farmers Edge - North Central North  
 512 Woodworth Ave  
 Kenton, MB R0M 0Z0

**Grower:** STEVE MANNING  
**Grower Field Name:** LAKE STRIP N  
**Reference Field Name:** 685300  
**Legal Location:** SW 6-26-11 W1 + W 31-25-11 W1

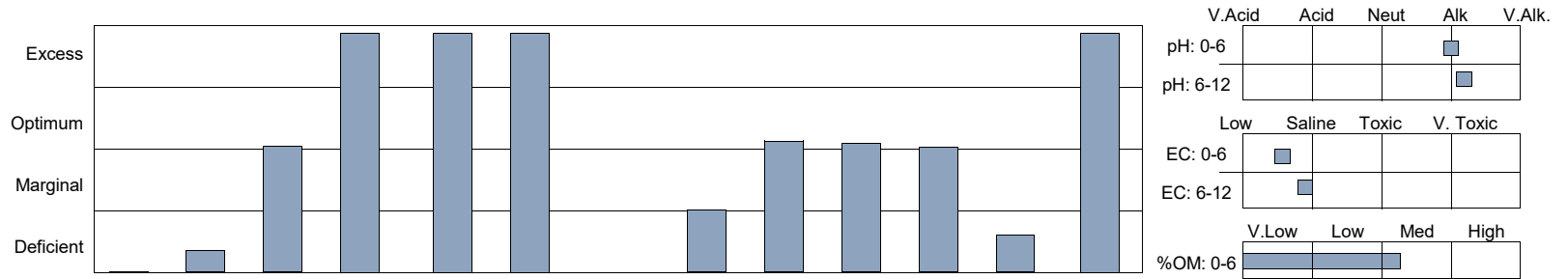
**Lot Number:** 171205\_147  
**Date Sampled:** 2017/12/27  
**Received Date:** 2017/12/05  
**Date Reported:** 2017/12/08

**Attention:** Adam Fordyce

**Total Acres:**  
**Sampler:** RS

**Client ID:** 09-0020

Sample ID	Depth	N	P*	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	Cl	pH	EC	OM
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
171205_147-01	0-6		5.2	160	120	4900	1200	90	0.4	1.3	34.0	2.8	0.6	91.0	8.0	1.10	5.1
171205_147-02	6-12				300									110.0	8.4	1.79	



0-6 lb/Ac:	N	P	K	S	CEC (meq/100g):	34.9	Ca Base Saturation (%):	70.0	Mg Base Saturation (%):	28.0
6-12 lb/Ac:		10	320	240	Base Saturation (%):	100.0	K Base Saturation (%):	1.1	Na Base Saturation (%):	1.1
				600	Sand (%):		Silt (%):		Clay (%):	Texture:
Total lb/Ac measured:		10	320	840						
Estimated lb/Ac to 24 inch:				1105						

Recommendation:	Comments: PREVIOUS CROP: CANOLA
	* Bicarbonate-Extractable (Olsen) Phosphate




## MMPP - Fertilizer 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. ✕

Risk Areas


**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. ✕

RISK AREA 09 

### Select Crop(s)

SILAGE CORN 

### Select Soil Type(s)

3 selected 

### Select Year Range



2009

to

2018

## Search Summary

### 23 records returned

118 farm varieties grown on **10,950.0** acres

### Average Yield

**10.559** Tonnes ( **11.636** Tons ) per acre

### Average Fertilizer Application

Nitrogen: **92.7** lbs per acre

Phosphorus: **33.0** lbs per acre

Potassium: **40.6** lbs per acre

Sulphur: **9.0** lbs per acre

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

## Fertilizer 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.

Copy to Clipboard

Save as XLS

Showing 1 to 23 of 23 entries

First Previous Next Last

Year	Risk Area / R.M.	Crop	Soil	Farms	Acres	Yield/acre (Imperial)	Nitrogen (lbs)	Phosphorus (lbs)	Potassium (lbs)
+ 2015	RISK AREA 09	SILAGE CORN	H	11	1,116.0	14.894 Tons	99.2	30.0	41.7
+ 2009	RISK AREA 09	SILAGE CORN	H	8	1,190.0	14.831 Tons	71.1	21.0	31.3
+ 2013	RISK AREA 09	SILAGE CORN	H	10	1,512.0	13.535 Tons	103.9	31.4	67.4
+ 2017	RISK AREA 09	SILAGE CORN	H	9	801.0	12.171 Tons	107.6	46.2	47.9
+ 2018	RISK AREA 09	SILAGE CORN	H	14	1,664.0	12.044 Tons	88.5	35.2	47.5
+ 2012	RISK AREA 09	SILAGE CORN	H	10	1,073.0	10.748 Tons	89.4	45.0	41.9
+ 2016	RISK AREA 09	SILAGE CORN	H	12	521.0	10.413 Tons	106.5	30.8	27.5
+ 2014	RISK AREA 09	SILAGE CORN	H	9	757.0	6.758 Tons	95.1	33.8	23.0


## MMPP - Fertilizer 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. ✕

Risk Areas


**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. ✕

RISK AREA 09 

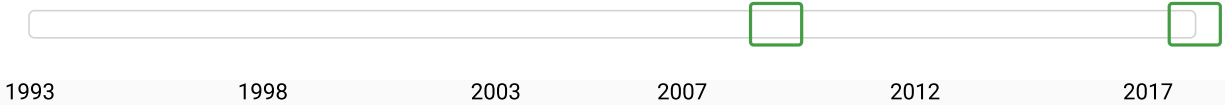
### Select Crop(s)

RED SPRING WHEAT 

### Select Soil Type(s)

3 selected 

### Select Year Range



2009 to 2018

## Search Summary

### 30 records returned

498 farm varieties grown on **81,238.0** acres

### Average Yield

**1.147** Tonnes ( **42.2** Bushels ) per acre

### Average Fertilizer Application

Nitrogen: **84.9** lbs per acre

Phosphorus: **34.7** lbs per acre

Potassium: **25.8** lbs per acre

Sulphur: **6.6** lbs per acre

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

## Fertilizer 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.

Copy to Clipboard

Save as XLS

Showing 1 to 30 of 30 entries

First Previous Next Last

Year	Risk Area / R.M.	Crop	Soil	Farms	Acres	Yield/acre (Imperial)	Nitrogen (lbs)	Phosphorus (lbs)	Potassium (lbs)
+ 2017	RISK AREA 09	RED SPRING WHEAT	H	42	8,392.0	59.5 Bushels	88.3	34.0	30.3
+ 2017	RISK AREA 09	RED SPRING WHEAT	I	12	1,527.0	54.5 Bushels	75.4	34.7	22.9
+ 2013	RISK AREA 09	RED SPRING WHEAT	H	48	8,285.0	51.6 Bushels	85.8	40.2	28.2
+ 2013	RISK AREA 09	RED SPRING WHEAT	I	13	1,604.0	51.4 Bushels	81.5	29.8	23.5
+ 2018	RISK AREA 09	RED SPRING WHEAT	H	47	9,349.0	46.6 Bushels	100.3	39.0	30.9
+ 2018	RISK AREA 09	RED SPRING WHEAT	I	21	3,981.0	46.5 Bushels	100.5	34.7	33.5


## MMPP - Fertilizer 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. ✕

Risk Areas


**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. ✕

RISK AREA 09 

### Select Crop(s)

OATS 

### Select Soil Type(s)

3 selected 

### Select Year Range



2009

to

2018

## Search Summary

### 28 records returned

398 farm varieties grown on **38,787.0** acres

### Average Yield

**1.011** Tonnes ( **65.6** Bushels ) per acre

### Average Fertilizer Application

Nitrogen: **59.4** lbs per acre

Phosphorus: **31.4** lbs per acre

Potassium: **20.3** lbs per acre

Sulphur: **5.3** lbs per acre

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

## Fertilizer 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.

Copy to Clipboard

Save as XLS

Showing 1 to 28 of 28 entries

First Previous Next Last

Year	Risk Area / R.M.	Crop	Soil	Farms	Acres	Yield/acre (Imperial)	Nitrogen (lbs)	Phosphorus (lbs)	Potassium (lbs)
+ 2009	RISK AREA 09	OATS	H	29	2,603.0	83.1 Bushels	54.3	32.2	14.4
+ 2009	RISK AREA 09	OATS	I	12	773.0	77.0 Bushels	49.9	27.6	13.5
+ 2013	RISK AREA 09	OATS	H	46	5,737.0	74.3 Bushels	67.9	29.5	22.0
+ 2015	RISK AREA 09	OATS	H	51	5,765.0	73.8 Bushels	55.2	29.8	18.1
+ 2017	RISK AREA 09	OATS	H	31	3,082.0	73.2 Bushels	60.7	33.4	22.7
+ 2018	RISK AREA 09	OATS	I	9	627.0	67.8 Bushels	78.5	36.1	39.2
+ 2012	RISK AREA 09	OATS	I	12	1,115.0	66.4 Bushels	60.5	29.7	31.2
+ 2016	RISK AREA 09	OATS	H	35	3,915.0	65.9 Bushels	62.9	35.2	17.4




## MMPP - Fertilizer 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. ✕

Risk Areas


**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. ✕

RISK AREA 09 

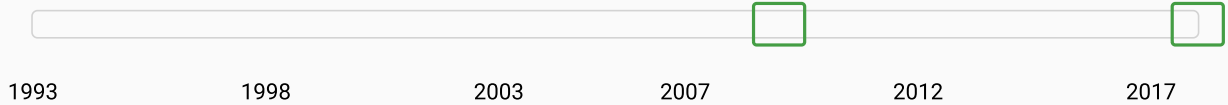
### Select Crop(s)

ARGENTINE CANOLA 

### Select Soil Type(s)

3 selected 

### Select Year Range



**2009** to **2018**

## Search Summary

### 29 records returned

913 farm varieties grown on **166,900.0** acres

### Average Yield

**0.692** Tonnes ( **30.5** Bushels ) per acre

### Average Fertilizer Application

Nitrogen: **91.3** lbs per acre

Phosphorus: **34.6** lbs per acre

Potassium: **25.2** lbs per acre

Sulphur: **14.3** lbs per acre

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

## Fertilizer 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.

Copy to Clipboard

Save as XLS

Showing 1 to 29 of 29 entries

First Previous Next Last

Year	Risk Area / R.M.	Crop	Soil	Farms	Acres	Yield/acre (Imperial)	Nitrogen (lbs)	Phosphorus (lbs)	Potassium (lbs)
+ 2017	RISK AREA 09	ARGENTINE CANOLA	H	79	18,163.0	39.0 Bushels	95.5	36.1	24.7
+ 2015	RISK AREA 09	ARGENTINE CANOLA	J	3	520.0	38.8 Bushels	87.5	33.7	27.7
+ 2017	RISK AREA 09	ARGENTINE CANOLA	I	42	6,216.0	38.6 Bushels	102.1	33.3	32.4
+ 2009	RISK AREA 09	ARGENTINE CANOLA	I	21	1,728.0	38.0 Bushels	80.8	26.5	12.5
+ 2009	RISK AREA 09	ARGENTINE CANOLA	H	52	7,301.0	37.4 Bushels	84.0	31.3	15.5
+ 2016	RISK AREA 09	ARGENTINE CANOLA	H	77	15,514.0	36.6 Bushels	92.6	33.2	26.1
+ 2015	RISK AREA 09	ARGENTINE CANOLA	H	71	14,143.0	36.1 Bushels	80.0	33.8	22.8
+ 2016	RISK AREA 09	ARGENTINE CANOLA	I	32	4,280.0	36.0 Bushels	92.4	33.4	25.8

## Groundwater Exploration Permit

---

Pursuant to The Water Rights Act

### True North Ag Development

is hereby permitted to explore for and construct a groundwater well or wells on the following described lands, **33-25-12 WPM, in The Rural Municipality of Alonsa, Manitoba for agricultural purposes**, subject, however, to the following conditions:

1. The permittee must have legal access to the site where the exploration work and project wells are to be located.
2. This Authorization is not transferable or assignable to any other party.
3. Prior to undertaking any work or construction of any works authorized by this permit the permittee is required to retain the services of a hydrogeologist registered with Engineers Geoscientists Manitoba, who would be required to:
  - Plan and supervise the drilling of boreholes, test wells, production well(s), observation wells, and well pump testing as authorized by this permit.
  - Conduct a constant rate pumping test on proposed production well(s) in accordance with Form H ([http://www.gov.mb.ca/conservation/waterstewardship/licensing/wlb/pdf/form\\_h\\_july\\_2013.pdf](http://www.gov.mb.ca/conservation/waterstewardship/licensing/wlb/pdf/form_h_july_2013.pdf)).
  - Conduct a recovery test for a period equal to pump test or 90% recovery.
  - Carry out an inventory of private and commercial wells within a 1 mile radius of the project well site. The inventory may need to be expanded based on the assessment of the expected area of water level drawdown impact resulting from future pumping.
  - Prepare and submit to the Drainage and Water Rights Licensing Branch a technical report on drilling of boreholes and wells, pump testing of well, well inventory and water quality sampling. The report would contain, but not limited to, such things as: well driller's reports for test wells, production wells and observation wells; a plan showing the location of these wells on the property and/or GPS locations of the wells; an analysis of aquifer pumping tests; calculations of transmissivity; and a description of the amount of water level interference that would be expected to occur at existing local wells that are located within a 1 mile radius of the project well site. Two copies of the report shall be submitted, one hardcopy and one digital copy.
4. During any pumping tests that may be conducted, pumping must cease immediately if any local water supplies are negatively impacted as a result of the tests. The permittee is also responsible to correct any water supply problems or provide temporary water supply to anyone whose water supplies are negatively impacted as a result of the tests.
5. This permit expires within twelve (12) months of the date of issuance.
6. Please note that diversion of water without a Water Rights Licence or written authorization would constitute a violation of The Water Rights Act and may be subject to enforcement.

---

Issued at the City of Winnipeg in the Province of Manitoba, this 1st day of April, A.D. 2019

  
for The Honourable Minister of Sustainable Development

# 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		-		-
	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 weanling (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		-	9,600	1,373
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:				-	Total Proposed:	1,373

**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](#)





# Water Requirement Calculation Table

Livestock	Number	IG/day per animal in winter	IG/day per animal in summer	IG/day (Imperial gallons per day)
<b>Beef/Dairy/Bison *</b>				
Feeder/heifer/steer (600 lb.)		5	9	-
Feeder (900 lb.)		7	12	-
Feeder (1250 lb.)		10	15	-
Cow/calf pair		12	15	-
Dry milking cow **		10	12	-
Lactating cow **		25	30	-
Bison		8	10	-
<b>Horses</b>				
Horses		8	11	-
<b>Hogs</b>				
Sow (Farrow/wean)		6.5		-
Dry Sow/Boar		4		-
Feeder	9,600	3		28,800
Nursery (33 lb.)		2		-
<b>Chickens</b>				
Broilers		0.035		-
Roasters/Pullets		0.04		-
Layers		0.055		-
Breeders		0.07		-
<b>Turkeys</b>				
Turkey Growers		0.13		-
Turkey Heavies		0.16		-
<b>Sheep/Goats</b>				
Sheep/Goats		2		-
Ewes/Does		3		-
Lambs/Kids (90 lb.)		1.6		-
<b>TOTAL (IG/day)</b>				<b>28,800</b>
<b>*** TOTAL with 10% wash water</b>				<b>31,680</b>

\* 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.

\*\* For intensive Dairy operations please use the Dairy Barn Water Requirement Estimator found on a separate sheet.

Enter this number on page 7 of Application Form.

\*\*\* 10% of the total is added to allow for wash water

**Other consumption:**  
Normal household consumption:  
60-75 IG/day per person or  
(272-340 l/day/person)

Unit Conversions		
Total per day	Total per year	Unit
31,680	11,563,200	IG
130,925	47,787,552	litres
0.131	48	cubic decametres (dam <sup>3</sup> )

Enter this number on page 7 of Application Form.

Conversion Factor: 1 IGPM = 4.546 l/m



Animal Type (A)	Animal Sub-type (B)	References (C)	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> ) (F×G×H)	Total Manure Volume for Semi-Solid and Liquid Manure (Imp Gal)
			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		Semi-Solid <sup>5</sup>	3.5			-	0.0	
			Solid	3.4			-	0.0	
			Liquid <sup>5</sup>	3.5			-	0.0	
	Tie Stall	Table 6, pg 59, FPGs for Dairy 1995	Semi-Solid <sup>5</sup>	3.5			-	0.0	
			Solid	3.5			-	0.0	
			Liquid <sup>5</sup>	3.0			-	0.0	
			Solid	3.0			-	0.0	
			Liquid	0.5			-	0.0	
			Solid	1.2			-	0.0	
			Solid	0.73			-	0.0	
Beef	Beef cows including associated livestock		Solid	0.85			-	0.0	
	Backgrounder (200 day)	pg 117, FPGs for Hogs 1998	Solid	1.1			-	0.0	
	Summer pasture / replacement heifers		Solid	2.3			-	0.0	
	Feeder cattle		Liquid	0.8			-	0.0	
Pigs	Sows - farrow to finish (234 - 254 lbs)		Liquid	2.3			-	0.0	
	Sows - farrow to wean (up to 11 lbs)		Liquid	0.8			-	0.0	
	Sows - farrow to nursery (51 lbs)	MAFRI website, FPGs for Pigs 2007	Liquid	1			-	0.0	
	Weanlings, Nursery (11 - 51 lbs)		Liquid	0.1			-	0.0	
	Grower / Finisher (51 - 249 lbs)		Liquid	0.25	0.25	400.00	9,600	5,980,800.0	
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/365×G×H)	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>			1.23			-	0.0	
	Broiler breeder hens <sup>7</sup>			2.3			-	0.0	
	Broiler breeder pullets <sup>6</sup>			0.99			-	0.0	
	Roasters - floor <sup>6</sup>			1.16			-	0.0	
	Layers - cage <sup>8</sup>	Table 3, pg 85, FPGs for Poultry 2000		2.33			-	0.0	
	Layers - floor <sup>7</sup>			1.68			-	0.0	
	Layers - solid pack <sup>9</sup>			0.71			-	0.0	
	Pullets - cage <sup>8</sup>			0.75			-	0.0	
	Pullets - floor <sup>6</sup>			2.83			-	0.0	
	Pullets - solid pack <sup>9</sup>			5.58			-	0.0	
Turkeys	Broilers <sup>6</sup>	Table 3, pg 85, FPGs for Poultry 2000		3.32			-	0.0	
	Heavy toms <sup>6</sup>			3.32			-	0.0	

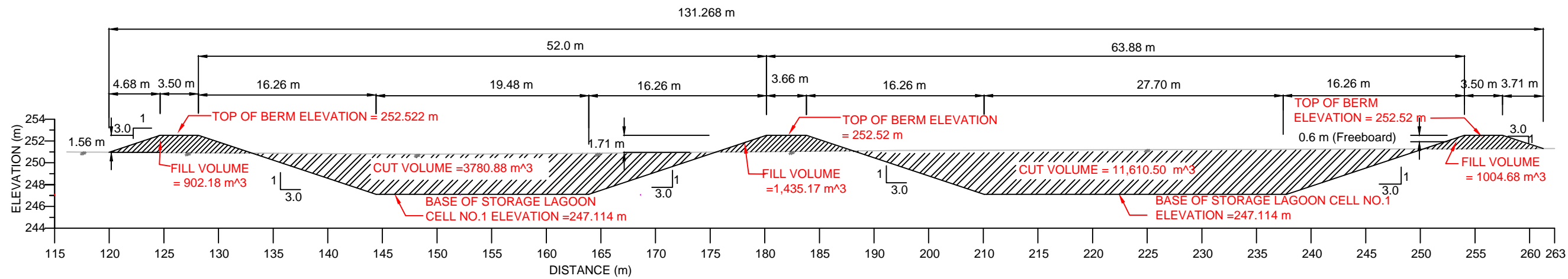
**Sizing of a manure storage facility in accordance with all requirements of the Livestock Manure and Mortalities Management Regulation (M.R. 42/98) is the responsibility of the operator.**

**Instructions and footnotes:**

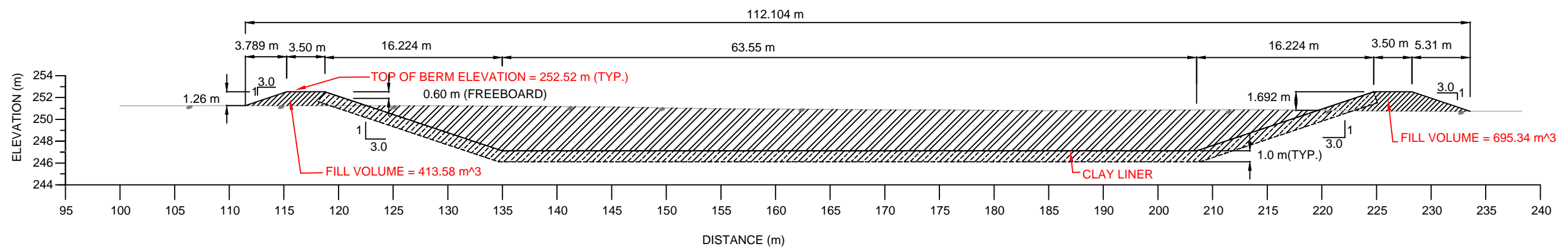
- ENTER the manure production estimate for your operation. If no estimate is available, use the default value provided in column E. References for default daily and yearly manure production are provided in column C.
- ENTER the number of days worth of manure that will be produced. For earthen manure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



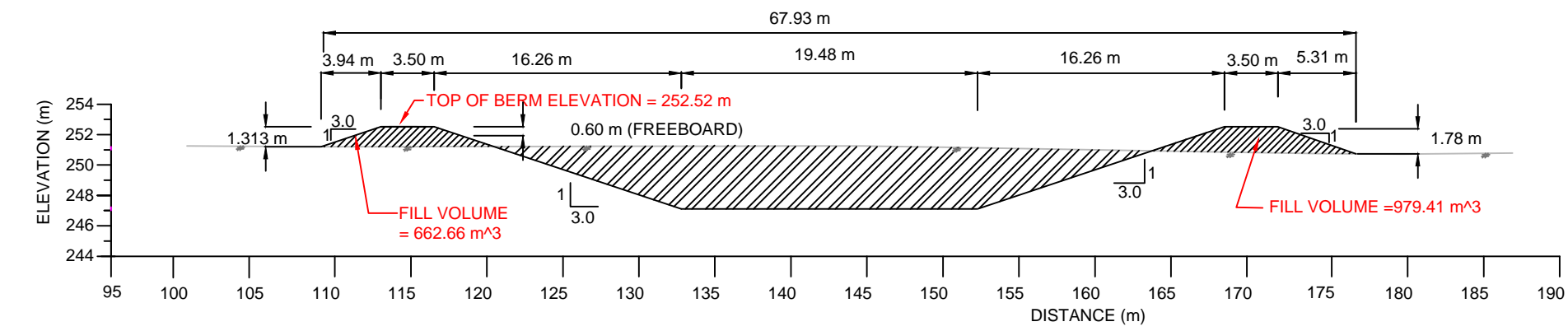




① NORTH - SOUTH PROFILE OF MANURE STORAGE LAGOON CELL NO.1  
SCALE= 1:400



② EAST TO WEST PROFILE OF MANURE STORAGE LAGOON CELL NO.1  
SCALE= 1:400



③ EAST TO WEST PROFILE OF MANURE STORAGE LAGOON CELL NO.2  
SCALE= 1:400

**MANURE STORAGE LAGOON**

NET FILL QUANTITY = 6,093.02 m<sup>3</sup>  
NET CUT QUANTITY = 15,391.38 m<sup>3</sup>  
NET CUT/FILL QUANTITY = 9,298.36 m<sup>3</sup>

**EMS CLAY LINER VOLUME**

PRIMARY CELL = 3,701.71 m<sup>3</sup>  
SECONDARY CELL = 5,991.95 m<sup>3</sup>

TOTAL CLAY LINER VOLUME = 9,693.66 m<sup>3</sup>

**MANURE STORAGE VOLUME**

PRIMARY CELL = 8,410.00 m<sup>3</sup>  
SECONDARY CELL = 16,262.00 m<sup>3</sup>  
FINISHING BARN = 4,871.40 m<sup>3</sup>

TOTAL STORAGE = 29,543.40 m<sup>3</sup>  
TOTAL STORAGE = 1,043,315 ft<sup>3</sup>

NO.	DATE	ISSUE / REVISION
0	JUN 2019	PUBLIC MEETING

**ENG-TECH CONSULTING LIMITED**  
420 Turenne Street  
Winnipeg, MB  
R2J 3W8  
Phone: (204) 233-1694  
Fax: (204) 235-1579

ENG. STAMP:  
**ENGINEERS GEOSCIENTISTS MANITOBA**  
Certificate of Authorization  
ENG-TECH Consulting Limited  
No. 2475

CLIENT:  
**EDDYSTONE FARM JOINT VENTURE**

PROJECT:  
**GEOTECHNICAL INVESTIGATION HOG BARN MANURE STORAGE LAGOON AND BUILDING, NE 33-25-12 W1, MB**

DWG DESCRIPTION:  
**LAGOON DETAILS**

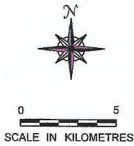
SCALE:  
**1:400**

DRAWN BY: **TDR** DATE: **JUNE 2019**

FILE No.: **19-130-01** CLIENT DWG/FIG. No.:

ENG-TECH DWG/FIG. No.: **4 OF 6** NO.:




# R.M. OF ALONSA

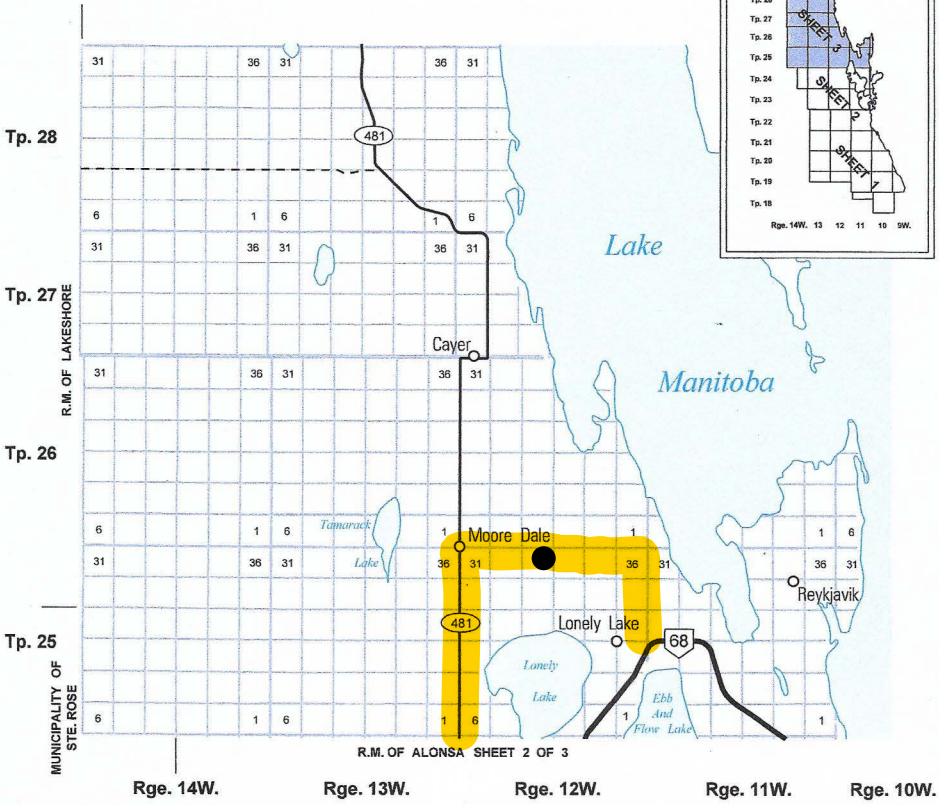
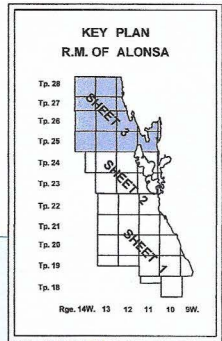


PROVINCE OF MANITOBA  
 INFRASTRUCTURE  
 HIGHWAY PLANNING AND DESIGN BRANCH  
 GEOGRAPHIC & RECORDS MANAGEMENT SECTION  
 WINNIPEG  
 JANUARY 1, 2015

## EFJV TRUCK HAUL ROUTE & ACCESS MAP

### LEGEND

- PROVINCIAL TRUNK HIGHWAYS ..... 
- PROVINCIAL ROADS ..... 
- MAIN MARKET ROADS .....
- TRUCK HAUL & ACCESS ROUTES ..... 





**From:** Murray, Colin (SD)  
**Sent:** December 21, 2018 1:21 PM  
**To:** 'Peter Mah'  
**Subject:** Data request Mah SIDC 2018 NE-33-025-12W1

Hi Peter

Please disregard the last email. I failed to add the quarter section cardinal direction so it was referring to the entire section. Just saw it as I pressed send.

I hope this helps. Let me know if you have any further problems or questions.

Thank you for your information request. I completed a search of the Manitoba Conservation Data Centre's (CDC) rare species database for your area of interest. This includes the primary location: NE-33-025-12W1; and a two kilometer radius buffer from the edge of the location.

The search resulted in the following occurrences:

Within the footprint or primary location(s):

NE-33-025-12W1 (Primary):

No listed or tracked species occurrences at this time.

Within 2km of the footprint boundary:

No listed or tracked species occurrences at this time.

General area records low locational accuracy:

No listed or tracked species occurrences at this time.

Found in broader area and similar habitat:

Vertebrate Animal, *Contopus virens*, (Eastern Wood-pewee), MBCDC SRank: S4B, Provincial ESEA: NA, SARA: Special Concern, COSEWIC: Special Concern.

Vertebrate Animal, *Antrostomus vociferus*, (Whip-poor-will), MBCDC SRank: S3B, Provincial ESEA: Threatened, SARA: Threatened, COSEWIC: Threatened.

Vertebrate Animal, *Dolichonyx oryzivorus*, (Bobolink), MBCDC SRank: S4B, Provincial ESEA: NA, SARA: Threatened, COSEWIC: Threatened.

Further information on this ranking system can be found on our website at:

<http://www.gov.mb.ca/sd/cdc/consranks.html>.

These designations can be found at:

<http://web2.gov.mb.ca/laws/statutes/ccsm/e111e.php>,

<https://www.canada.ca/en/environment-climate-change/services/committee-status-endangered-wildlife.html> and

<http://www.sararegistry.gc.ca/default.asp?lang=En&n=24F7211B-1>.

Manitoba's recommended setback distances can be found at: <http://www.gov.mb.ca/sd/cdc/pubs.html>.

The information provided in this letter is based on existing data known to the Manitoba CDC of the Wildlife and Fisheries Branch 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 does not confirm the absence of any rare or endangered species.** Many areas of the province have never been thoroughly surveyed, however, and the absence of data in any particular geographic area does not necessarily mean that species or ecological communities of concern are not present. The information should, therefore, not be regarded as a final statement on the occurrence of any species of concern nor should it substitute for on-site surveys for species or environmental assessments. Also, because our 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 passes before it is utilised.

Third party requests for products wholly or partially derived from the Biotics database 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 data from our database, as the Manitoba Conservation Data Centre; Wildlife and 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 contact me directly at (204) 945-7760.

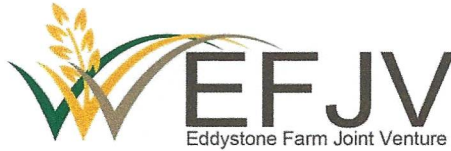
Colin

Reference screen clip:









# OPEN HOUSE

**Residents of Alonsa Municipality**

**Tuesday, June 25, 2019**

**1:00 p.m. - 8:00 p.m.**

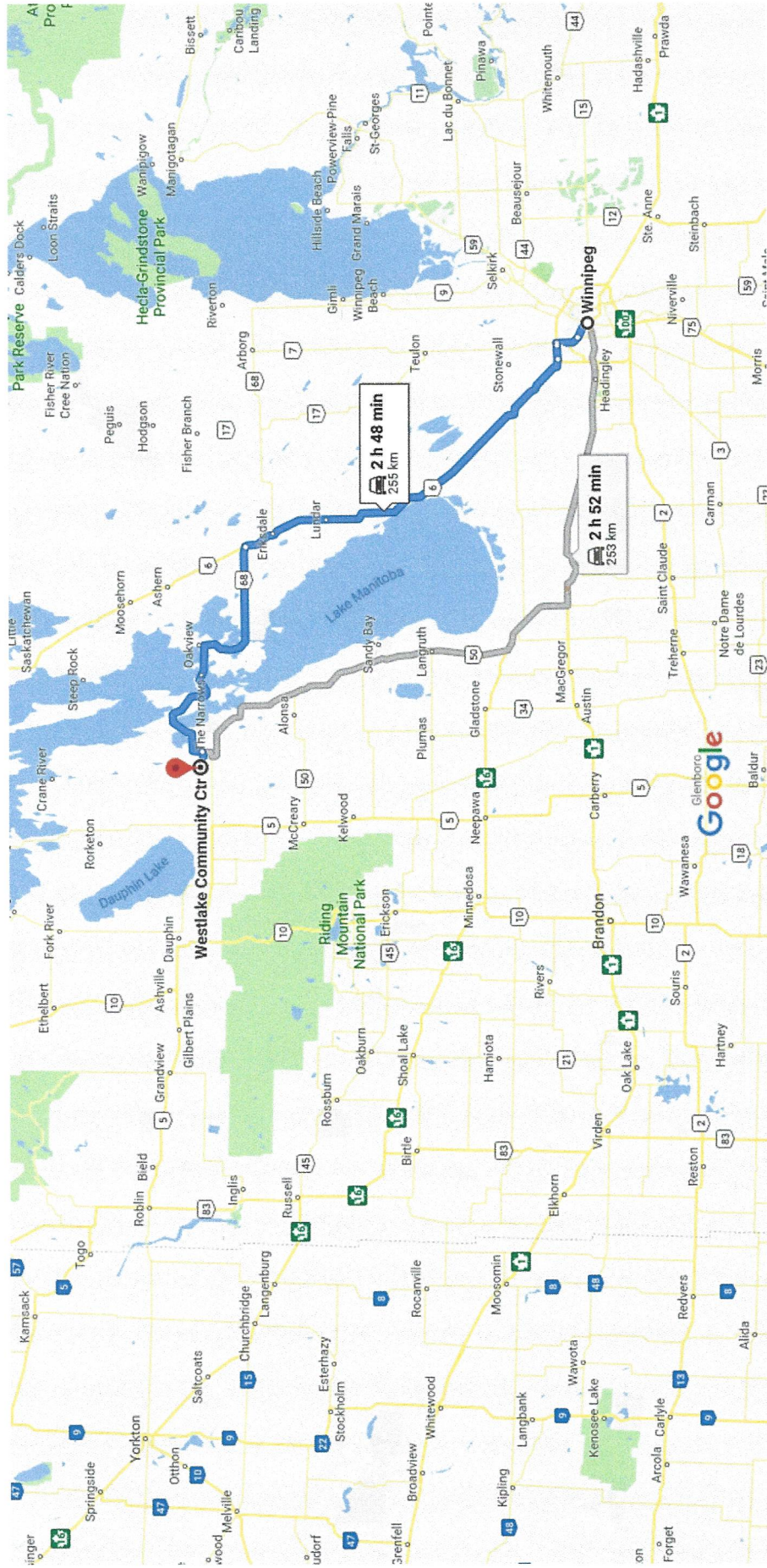
**West Lake Community Centre  
On Highway 68 in Eddystone, MB**

**“Come and Go” OPEN HOUSE with exhibits on the preliminary proposal for a Hog Finisher Barn on the NE 33-25-12W in the R.M. of Alonsa, north-east of Eddystone.**

- **Come and speak directly with local producers about their proposed project.**
- **Find out how the community would benefit from this opportunity.**
- **Speak directly with industry and government specialists in sustainable agriculture and environmental protection.**
- **Learn about the local & provincial development review process and regulations that apply....and your opportunities for public notice and input.**

**We seek the community's views & suggestions.**

*We thank all who can attend for your valued input!*



Map data ©2019 Google 20 km

via MB-6 N and MB-68 W  
Fastest route

2 h 48 min  
255 km

2 h 52 min