

Appendix A – Drawings





DWG NO. C1.1

C1.2

C1.3

C1.4

CIVIL DRAWINGS	
DRAWING NAME	REV
LOCATION MAP AND MANURE APPLICATION PLAN	В
SITE PLAN	С
PREVAILING WIND DIRECTION PLAN	А
AREA ZONING AND LIVESTOCK USE	А

PROJECT NO:

BMCE18-067



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		<u> </u>			
	I	L	LEO	GEND	
			SPREAD FIELDS 2 - 81 HOLDING CO. LT (L INDICATES LEASE PROPE	D ERTY)	
			SOLID MANURE STORAG SPREADING	E & 7	
			TRUCK HAULING ACCES ROUTE		
			RESIDENCE NOT ASSOCIA WITH OPERATION	ITED	
IG CO	D. LTD		DRAWING TITLE:		
ANSION			LOCATION	MAP AND	
SA, N	AB	rincess Avo	MANURE APPLI	CATION PLAN	
ENDE DERS L'	EL FD. R7A 01 Tel: (2) Fax: (2)	nicess Ave. on, Manitoba R4 04) 728-7364 204) 728-4418	PROJECT NUMBER: BMCE18-067	drawing no: C1.1	



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	DRAWING TITLE:	
NG CO. LTD		
ANSION	SITE F	PLAN
OSA, MB		
1331 Princess Ave.		
Brandon, Manitoba R7A 0R4		224,000,00
EERS LTD. Tel: (204) 728-7364		
Fax: (204) 728-4418		01.2







ΓD	PREVAILING WI DIRECTION PL/			
1331 Princess Ave. Brandon, Manitoba				
R/A 0R4	PROJECT NUMBER:	DRAWING NO:		
Tel: (204) 728-7364 Fax: (204) 728-4418	BMCE18-067	С		

C1.3





	LEC	GEND		
	AGRICULTURAL (GENERAL) ZONE			
	AGRICULTURAL (LIMITED ZONE)			
	AGRICULTURAL (MODERATELY LIMITED ZONE)			
	HOG PRODUCTION OPERATION	Н		
	BEEF PRODUCTION OPERATION	B		
	DAIRY PRODUCTION OPERATION	D		
	OTHER PRODUCTION OPERATION	0		
DRAWIN	G TITLE:			
	AREA ZONING AND			
	LIVESTOCK USE			
Princess Ave. ndon, Manitoba				
(204) 728-7364 (204) 728-4418 <b>RM</b>	CF18-067	DRAWING NO: C14		



## Appendix B – Animal Units Calculator



## **Animal Units Calculator**

			Current Operation		Proposed Operation	
A	В	С	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
	Mature cows (lactating and dry) including associated livestock	2		-	4	8.00
	Mature cows (lactating and dry)	1.35		-		-
	Heifers (0 to 3 months)	0.16		-		-
Dairy <sup>3</sup>	Heifers (4 to 13 months)	0.41		-		-
-	Heifers (> 13 months)	0.87		-		-
	Bulls	1.35		-		-
	Veal calves	0.13		-		-
	Beef cows including associated livestock	1.25		-		-
Poof	Backgrounder	0.5		-		-
Beel	Summer pasture / replacement heifers	0.625		-		-
	Feeder cattle	0.769		-		-
	Sows - farrow to finish (234-254 lbs)	1.25	575	718.75	575	718.75
	Sows - farrow to weanling (up to 11 lbs)	0.25		-		-
Dire	Sows - farrow to nursery (51 lbs)	0.313		-		-
Pigs	Boars (artificial insemination units)	0.2		-		-
	Weanlings, Nursery (11-51 lbs)	0.033		-		-
	Growers / Finishers (51-249 lbs)	0.143		-		-
	Broilers	0.005	65,000	325.00	96,000	480.00
	Roasters	0.01		-		-
Chickopa	Layers	0.0083		-	500	4.15
Chickens	Pullets	0.0033		-		-
	Broiler breeder pullets	0.0033		-		-
	Broiler breeder hens	0.01		-		-
	Broilers	0.01		-		-
Turkeys	Heavy Toms	0.02		-		-
-	Heavy Hens	0.01		-		-
Horses	Mares	1.333		-		-
Shoon	Ewes	0.2		-		-
Sneep	Feeder lambs	0.063		-		-
Other Livesteck	Type: Ducks (Broilers)	0.017		-	400	6.80
	Туре:			-		-
			Total Current:	1,043.75	Total Proposed:	1,217.70

#### 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 AU value of 0.017 for broiler ducks was obtainted from Amy Johnston (204-619-4704), Poultry Specialist at MB Ag via phone call on June 8, 2018. She said for the other calculations (manure production, water requirements), a conservative estimate is to treat the broiler ducks as broiler turkeys.





## Appendix C – Water Related Documents



# Water Requirement Calculation Table

Livestock	Number	IG/day per animal in winter	IG/day per animal in summer	<b>IG/day</b> (Imperial gallons per day)
Beef/Dairy/Bison*				
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 **	4	25	30	120
Bison		8	10	—
Horses				
Horses		8	11	—
Hogs				
Sow (Farrow/wean)	575	6	.5	3738
Dry Sow/Boar		4	4	—
Feeder			3	—
Nursery (33 lb.)			2	—
Chickens				
Broilers	96,000	0.0	)35	3360
Roasters/Pullets		0.	04	—
Layers	500	0.0	)55	28
Breeders		0.	07	—
Turkeys				
Turkey Growers (Ducks - Broilers)	400	0.	13	52
Turkey Heavies		0.	16	
Sheep/Goats	-			
Sheep/Goats			2	
Ewes/Does			3	—
Lambs/Kids (90 lb.)		1	.6	—
		TOTAL	(IG/day)	7,297
	***	TOTAL with 10	0% wash water	8,027
		TOTAL with Do	omestic Deman	17 101

\*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 separate sheet.

\*\*\* 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)

Domestic Consumption:

150 people x 275 l/d/p

= 41,250 L/d (9074 IG/d)

= 15 056 250 L/y (3,311,905 IG/y)

### **Unit Conversions**

Total Per day	Total per year	Unit
17,101	6,241,756	IG
77,740	28,375,021	litres
0.078	28.375	Cubic decametres (dam <sup>3</sup> )

Enter this number on page 6 of Application Form

Enter this number on page 6 of Application Form

## Licence to Use Water for Municipal Purposes

Issued in accordance with the provisions The Water Rights Act and regulations made thereunder. Project: Licence No.: (Previous Lic. No.: U.T.M.: Cool Spring Colony 2019-025 2008-016)

Sustainable Development

451798 E 5579647 N

200 Saulteaux Cresc

Winnipeg, Manitoba R3J 3W3

Subject to the terms and conditions contained in this Licence, the Minister of Sustainable Development authorizes:

2-81 Holding Co. Ltd.

in the **Rural Municipality of Minto-Odanah** in the Province of Manitoba (the "LICENSEE") to construct, operate, establish and maintain a project consisting of water well(s), pump(s), transmittal pipeline(s) and other works specific to the type of use (the "WORKS") and divert water from a **shale** aquifer located on the following land:

### NE 13-16-17 W1

as more particularly located and shown on the attached Exhibit "A" for Municipal purposes on the following lands:

### **Cool Spring Colony**

This licence is issued upon the express condition that it shall be subject to the provisions of The Water Rights Act and Regulation and all amendments thereto and, without limiting the generality of the aforesaid, to the following terms and conditions, namely:

- 1. The water shall be used solely for Municipal purposes.
- 2. The WORKS shall be operated in accordance with the terms herein contained.
- 3. a) The maximum rate at which water may be diverted pursuant hereto shall not exceed 0.0038 cubic metres per second (0.13 cubic feet per second).

b) The total quantity of water diverted in any one year shall not exceed 45.00 cubic decametres (36.48 acre feet).

- 4. Water shall not be diverted during any period when the water level in the aquifer is below the casing of any project well.
- 5. The LICENSEE does hereby remise, release and forever discharge Her Majesty the Queen in Right of the Province of Manitoba, of and from all manner of action, causes of action, claims and demands whatsoever which against Her Majesty the LICENSEE ever had, now has or may hereafter have, resulting from the use of water for Municipal purposes.
- 6. In the event that the rights of others are infringed upon and/or damage to the property of others is sustained as a result of the operation or maintenance of the WORKS and the rights herein granted, the LICENSEE shall be solely responsible and shall save harmless and fully indemnify Her Majesty the Queen in Right of the Province of Manitoba, from and against any liability to which Her Majesty may become liable by virtue of the issue of this Licence and anything done pursuant hereto.
- 7. This Licence is not assignable or transferable by the LICENSEE and when no longer required by the LICENSEE this Licence shall be returned to the Water Use Licensing Section for cancellation on behalf of the Minister.
- 8. Upon the execution of this Licence the LICENSEE hereby grants the Minister or the Minister's agents the right of

ingress and egress to and from the lands on which the WORKS are located for the purpose of inspection of the WORKS and the LICENSEE shall at all times comply with such directions and/or orders that may be given by the Minister or the Minister's agents in writing from time to time with regard to the operation and maintenance of the WORKS.

- This Licence may be amended, suspended or cancelled by the Minister in accordance with The Water Rights Act by letter addressed to the LICENSEE at P.O. Box 1015, Minnedosa, MB, R0J 1E0, Canada and thereafter this Licence shall be determined to be at an end.
- 10. Notwithstanding anything preceding in this Licence, the LICENSEE must have legal control, by ownership or by rental, lease, or other agreement, of the lands on which the WORKS shall be placed and the water shall be used.
- 11. The term of this Licence shall be **ten (10) years** and this Licence shall become effective only on the date of execution hereof by a person so authorized in the Department of Sustainable Development. The LICENSEE may apply for renewal of this Licence not more than 365 days and not less than 90 days prior to the expiry date.

Licence No. 2019-025

Page 1 of 3

- 12. This Licence expires automatically upon the loss of the legal control of any of the lands on which the WORKS are located or on which water is used, unless the Licence is transferred or amended by the Minister upon application for Licence transfer or amendment.
- 13. The LICENSEE shall keep records of monthly and annual water use and shall provide a copy of such records to the Water Use Licensing Section not later than February 1st of the following year.
- 14. A flow meter must be installed, positioned to accurately measure instantaneous pumping rate and accumulative withdrawals from the water source.
- 15. The LICENSEE does hereby agree to correct, to the satisfaction of the Minister, any water supply problems to wells or other forms of supply, which were constructed and operating prior to the date of the original application for the project and which are partly or wholly attributable, in the opinion of the Minister, to the diversion of water as authorized by this Licence.
- 16. The LICENSEE shall hold and maintain all other regulatory approvals that may be required and shall comply with all other regulatory requirements for the construction, operation, or maintenance of the WORKS or to divert or use water as provided by this Licence.

In witness whereof	I the undersigned hereby	agree to accept	t the aforesaid	Licence on the terms and conditions set f	forth
thorein and hereby	set my hand and seal this	13 th day	of MAY	A.D. 20 <u>19</u> .	

}

}

SIGNED, SEALED AND DELIVERED in the presence of:

Witness (Print Name)

ness

(Seal) Licensee

Weldner (Seal)

Licensee (Print Name)

FOR OFFICE USE ONLY Issued at the City of Winnipeg, in the Province of Manitoba, this \_\_\_\_\_\_ day of A.D. 2019. Soniaton Signature **Print Name** Signed by the Honourable Minister of Sustainable Development (or her/his designate)







### 2018 Jun 18 WELL INFORMATION REPORT

Man	itoba	
I. I. GALLE	IGAAA	17 11

Well PID:	80399				
Location:	NE13-16-17W				
UTMX:451458.3	UTMY:5579915.1 XY Accur	acy:UNKNOWN			
Owner:	COOL SPRING COLONY				
Driller:	M & M Drilling Rivers L	td.			
Well Name:	WELL NO.3				
Date Completed:	1995 Jun 09				
Well Use:	PRODUCTION				
Water Use:	Domestic				
Well Status:	UNKNOWN	Aquifer:	SAND	AND	GRAVEL

#### **REMARKS**:

160 FT W OF N/S RD ALLOW + APPROX 2300 FT S OF E/W RD ALLOW, OVERNITE SWL=48.33 FT, PUMP TEST STARTED AFTER WELL HAD BEEN PUMPED AND NOT FULL RECOVERED, TIME DRAWDOWN + RECOVERY BOTH GAVE T=15,840 IGPD/FT, EC=1000, FE=1, SPEC CAP=6.9 IGPM/FT @ 30 MINS, PUMP TEST DATA FILE

WELL	LOG (Imj	perial units)
From	To(ft.)	Log
0.0	2	SOIL
2.0	20	TILL, STONY, BROWN
20.0	22	TILL, GREY
22.0	32	SAND
32.0	46	TILL, GREY
46.0	50	SAND AND GRAVEL
50.0	53	TILL, GREY
53.0	58	TILL, BROWN
58.0	82.9	TILL, GREY, BOULDER AT 83 FEET
82.9	200.9	TILL, STONY, GREY
200.9	309.8	SHALE, ODANAH, FRACTURED LAYERS

WELL CONSTRUCTION

			Inside	Outside	Slot		
From	To(ft)	Const.Method	Dia.(in)	Dia.(in)	Size(in)	Туре	Material
0.0	195.9	casing	5.0			INSERT	PVC
195.9	295.8	perforations	5.0			SAW CUT	PVC
179.9	295.8	gravel pack	5.0	8.0		PEA SIZE	GRAVEL
0.0	179.9	casing grout	5.0	8.0			
Top of	Casing:	2.0 ft. al	pove grou	nd			

PUMPING TESTDate :Pumping 60.0 Imp. gallons/minuteWater level before test: 55.0 ft below groundWater level at end of test :64.0 ft below ground

### Page 1 of 2

Test duration : hours, 30 minutes

Water temperature : ?? degrees F

#### REMARKS

160 FT W OF N/S RD ALLOW + APPROX 2300 FT S OF E/W RD ALLOW, OVERNITE SWL=48.33 FT, PUMP TEST STARTED AFTER WELL HAD BEEN PUMPED AND NOT FULL RECOVERED, TIME DRAWDOWN + RECOVERY BOTH GAVE T=15,840 IGPD/FT, EC=1000, FE=1, SPEC CAP=6.9 IGPM/FT @ 30 MINS, PUMP TEST DATA FILE

### REPORTING FORM MONITORING WELL SAMPLING

Note: This form should be used to report manure storage facility monitoring well results. If you are reporting source water results, please refer to Information Bulletin 2004-01E.

Facility Reference Number (permit or	registration #):	4291-LS					
Name of Operation: Coolspring colony							
Mailing Address:	ailing Address: box 1015						
minnedosa m.b. Postal Code ROJ-1EC							
Location of Operation:	SW 24-16-17						
Rural Municipality:	Qtr Sec Twp Rge E/WP	M or River Lot/Paris	sh				
Name of Contact:	Josh Waldner						
Contact Numbers:	204 867-7243						
	Business	Residence	Cellular	Facsimile			
Sampling Date:	dec 14 2017	7					

Well #	Water Depth To Top Of Well Casing (inches)	Ground Surface To Top Of Well Casing (inches)	Depth Of Water Level To Ground Surface (inches)

#### **REMEMBER TO ATTACH ANALYTICAL RESULTS!**

Please submit form and analytical results to: Technical Review Officer, Manitoba Conservation and Water Stewardship, 1007 Century Street, Winnipeg, MB R3H 0W4 Fax (204) 948-2420, SourceWater@gov.mb.ca

Proprietary (confidential) information will be protected in accordance with Manitoba law. Personal information is collected under the authority of *The Environment Act*, the *Livestock Manure and Mortalities Management Regulation*, and will be used for administration and enforcement purposes. Information collected is protected by the privacy provisions of *The Freedom of Information and Protection of Privacy Act*. If you have any questions, contact the Access & Privacy Coordinator, Box 85, 200 Saulteaux Crescent, Winnipeg MB R3J 3W3; 1-204-945-4170.

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Page 4 of 4

BLAINE SANGSTER 204- 834 - 3356

Lindent       London       Lindent	FOR LABORATO Sample Condition	1329 Niakwa Rd. E.         ipeg, Manitoba R2J 3T4         204) 255-97         (204) 255-97         (204) 255-97         ree: 1 800 6         DRY USE         L2035531-COFC         Dom Re	Chain of Custody / Analytical Request Form           CHEMISTRY INFO: (204) 255 9739           MICRO INFO: (204) 255 9740 OR (204) 255 9737           WORK ORDER NO:           LAB NO.:           LAB NO.:           ABLE
Loads Service Required: Loads Control Coll SPT ING COLONY Loads Control Coll SPT ING COLONY Sample Street Control Visit Treaded Weil Control Visit Treaded Weil Control Visit Control Coll SPT ING COLONY Control Visit Control Coll SPT ING COLONY Control Coll SPT ING			Dirrect Sample Container TIME RECEIVED: 210
Location: Cool SPD ing Colory (Texe comparing bit)	Date Sampled: 190	EC_1 I lime: 10 : 00 A.M. P.M.	Date Required:
Community Code Number:	Location: COULSIO	oring Colony	Submitter's Name Printed: COOL SPR ING COLONY Semple Submitted By: RLAINE SANGSTER
SAMPLE TYPE       PLEASE PRINT & PRESS FIRMLY         DRINKING WATER       NON-DRINKING WATER         DTraded Winicipal       One-present for the press & colonitons         Traded Municipal       Developer prode         Non-Treated Municipal       Developer prode         Water-Sufface-Raw       Dotter         Water-Sufface-Raw       Dotter         Water-Sufface-Raw       Dotter         Private       SAMPLE IDENTIFICATION         ALS CUSTOMER #:       QUOTE #:         COUL SPRING       NAME:         BUDMIBER       SAMPLE IDENTIFICATION         ALS CUSTOMER #:       QUOTE #:         COUL SPRING       NAME:         BUDMIBER       SAMPLE IDENTIFICATION         ALS CUSTOMER #:       QUOTE #:         COUL SPRING       NAME:         BUDMISER       SAMPLE IDENTIFICATION         ALS CUSTOMER #:       QUOTE #:         QUOTE #:       QUOTE #:         COUL SPRING       NAME:         BUDMISER       SAMPLE IDENTIFICATION         ALS CUSTOMER #:       QUOTE #:         COUL SPRING       NAME:         COUL SPRING       NAME:         COUL SPRING       NAME:         COUL SPRING       NAME:	Community Code Numbe	er:	Bural Municipality/I GC/UVD- RM Minto-adamah
□ Private       □ Real Estate       □ 100% SURCHARGE)       □ 100% SURCHARGE)         □ LAB NUMBER       SAMPLE IDENTIFICATION       ALS CUSTOMER #:       □ 0007E #:         □ COUL SPRINC       NAME:       BLOWTE #:       □ 0007E #:         □ COUL SPRINC       NAME:       BLOWTE #:       □ 0007E #:         □ COUL SPRINC       NAME:       BLOWTE #:       □ 0007E #:         □ COUL SPRINC       NAME:       BLOWTE #:       □ 0007E #:         □ COUL SPRINC       NAME:       BLOWTE #:       □ 0007E #:         □ COUL SPRINC       NAME:       □ 0007E #:       □ 0007E #:         □ COUL SPRINC       NAME:       □ 0007E #:       □ 0007E #:         □ COUL SPRINCE       □ 0007E #:       □ 0007E #:       □ 0007E #:         □ COUL SPRINCE       □ 0007E #:       □ 0007E #:       □ 0007E #:         □ COUL SPRINCE       □ 0007E #:       □ 0007E #:       □ 0007E #:         □ 0007E #:       □ 0007E #:       □ 0007E #:       □ 0007E #:       □ 0007E #:         □ 0007E #:       □ 0007E #:       □ 0007E #:       □ 0007E #:       □ 0007E #:       □ 0007E #:         □ 0007E #:       □ 0007E #:       □ 0007E #:       □ 0007E #:       □ 0007E #:       □ 0007E #:       □ 0007E #:       □ 000	SAMPLE TYPE DRINKING WATER Untreated Well Treated Well Treated Municipal Non-Treated Municipal Water-Surface-Raw Water-Surface-Treate PURPOSE OF TEST	PLEASE PRIN NON-DRINKING WATER Sewage/Waste Water Lake/River Swimming Pool Whirl Pool Other	IT & PRESS FIRMLY NOTES & CONDITIONS  1. Quote number must be provided to insure proper pricing. 2. Failure to properly complete all portions of this form may delay analysis. 3. ALS's liability limited to cost of analysis.  SERVICE REQUESTED REGULAR PRIORITY EMERGENCY
LAB NUMBER         SAMPLE IDENTIFICATION         ALS CUSTOMER #:	Private Real Est	ate 🔲 Water Main	(50% SURCHARGE) (100% SURCHARGE)
COUL SPRING         REPORT TO BE SENT TO           NAME:         COMPANY:         REPORT TO BE SENT TO           ADDRESS:         COMPANY:         REPORT TO BE SENT TO           ADDRESS:         COMPANY:         REPORT TO BE SENT TO           PHONE:         REPORT TO BE SENT TO           BY:         MAIL         FAX           PHONE:         SAMPLING         FAX           PHONE:         POSTAL CODE:         POSTAL CODE:           CC         NAME:         ADDRESS:           ADDRESS:         CC         REMARDERS           PHONE:         POSTAL CODE:         POSTAL CODE:           PHONE:         BY:         MAIL         FAX           PHONE: <td>LAB NUMBER</td> <td>SAMPLE IDENTIFICATION</td> <td>ALS CUSTOMER #: QUOTE #:</td>	LAB NUMBER	SAMPLE IDENTIFICATION	ALS CUSTOMER #: QUOTE #:
Analyses required FOR MANURE       BILLING ADDRESS       SAME AS REPORT TO A         MANAGEMENT       NAME:		COULSPRING	REPORT TO BE SENT TO   NAME: BLA INP SANGESTER   COMPANY: REDFERN FARM SERVICES   ADDRESS: BOX 930   CITY/TOWN: (ARBERRY)   POSTAL CODE: ROKOHO   PHONE: 204 834 3356   BY: MAIL   FAX 204 834 - 3558   PICKUP E-MAIL   SGANSSTER (FAX NUMBER)   PICKUP E-MAIL   DRESS: (FAX NUMBER)   CC NAME:   ADDRESS: (FAX NUMBER)   CITY/TOWN: / PROV.:   POSTAL CODE: PHONE:   BY: MAIL   FAX [FAX NUMBER]   PHONE: [FAX NUMBER]   BY: MAIL   FAX [FAX NUMBER]   PICKUP E-MAIL   (EMAIL ADDRESS)
MANAGEMENT       NAME:         MAY       COMPANY:         ADDRESS:       CITY/TOWN:         CITY/TOWN:       / PROV.:         POSTAL CODE:       POSTAL CODE:         PAYMENT PARTICULARS       PAYMENT PARTICULARS         PAYMENT PARTICULARS       PAYMENT PARTICULARS         Part of the ALS Laboratory Group       INVOICE NEEDED / CLIENT'S P.O. NO. CARBERY         12 - 1329 Niakwa Rd. E., Winnipeg, MB Canada R2J 3T4       INTERAC         Phone: +1 204 255 9720 Fax: +1 204 255 9721 www.alsglobal.com       CHEQUE       Subtotal \$         A Campbell Brothers Limited Company       Total \$	Analyses required	FOR MANURE	BILLING ADDRESS SAME AS REPORT TO
WAA 7       COMPANY:         ADDRESS:       CITY/TOWN:         CITY/TOWN:       / PROV:         POSTAL CODE:       POSTAL CODE:         POSTAL CODE:       PAYMENT PARTICULARS         WINDOW Rd. E., Winnipeg, MB Canada R2J 3T4       Phone: +1 204 255 9720 Fax: +1 204 255 9721 www.alsglobal.com         A Campbell Brothers Limited Company       OUR POLICY IS NOT TO ACCEPT SAMPLES FROM THE PRIVATE CITIZEN WITHOUT PREPAYMENT		MANAGEMENT	NAME:
ADDRESS:	MUA7		COMPANY:
SAMPLING INSTRUCTIONS ON REVERSE SIDE       PAYMENT PARTICULARS         Manitoba Technology Centre Ltd.       Part of the ALS Laboratory Group         12 - 1329 Niakwa Rd. E., Winnipeg, MB Canada R2J 3T4       INTERAC         Phone: +1 204 255 9720 Fax: +1 204 255 9721 www.alsglobal.com       CHEQUE         SUBMITTER COPY       OUR POLICY IS NOT TO ACCEPT SAMPLES FROM THE PRIVATE CITIZEN WITHOUT PREPAYMENT	•		ADDRESS:
SAMPLING INSTRUCTIONS ON REVERSE SIDE         Imanitoba Technology Centre Ltd.         Part of the ALS Laboratory Group         12 - 1329 Niakwa Rd. E., Winnipeg, MB Canada R2J 3T4         Phone: +1 204 255 9720 Fax: +1 204 255 9721 www.alsglobal.com         A Campbell Brothers Limited Company         SUBMITTER COPY			
Part of the ALS Laboratory Group 12 - 1329 Niakwa Rd. E., Winnipeg, MB Canada R2J 3T4 Phone: +1 204 255 9720 Fax: +1 204 255 9721 www.alsglobal.com A Campbell Brothers Limited Company SUBMITTER COPY	SAMPLING INS	TRUCTIONS ON REVERSE SIDE	PAYMENT PARTICULARS
* OUR POLICY IS NOT TO ACCEPT SAMPLES FROM THE PRIVATE CITIZEN WITHOUT PREPAYMENT	Manitoba Part of the A 12 - 1329 Niakwa Phone: +1 204 255 972 A Cam	Technology Centre Ltd. LS Laboratory Group Rd. E., Winnipeg, MB Canada R2J 3T4 20 Fax: +1 204 255 9721 www.alsglobal.com pbell Brothers Limited Company	CHEQUE Subtotal \$
	SI	JBMITTER COPY	* OUR POLICY IS NOT TO ACCEPT SAMPLES FROM THE PRIVATE CITIZEN WITHOUT PREPAYMENT

ENTERED IN LIMS BY:



Redfern Farm Services - Carberry ATTN: BLAINE SANGSTER PO Box 930 Carberry MB ROK OHO

Date Received: 14-DEC-17 Report Date: 19-DEC-17 11:23 (MT) Version: FINAL

Client Phone: 204-834-3356

# Certificate of Analysis

Lab Work Order #: L2035531 Project P.O. #: NOT SUBMITTED Job Reference: C of C Numbers: Legal Site Desc: RM MINTO ODANAH

Hua Wo Chemistry Laboratory Manager [This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 1329 Niakwa Road East, Unit 12, Winnipeg, MB R2J 3T4 Canada | Phone: +1 204 255 9720 | Fax: +1 204 255 9721 ALS CANADA LTD Part of the ALS Group An ALS Limited Company

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L2035531 CONTD.... PAGE 2 of 3 Version: FINAL

## ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	* D.L.	Units	Extracted	Analyzed	Batch
L2035531-1 COOL SPRING							
Sampled By: BS on 14-DEC-17 @ 10:00							
Matrix: WATER							
Manure Monitoring Well							
Ammonia by colour							
Ammonia, i otal (as N) Chloride in Water by IC	2.28		0.10	mg/L		16-DEC-17	R3915830
Chloride (Cl)	3.1		1.0	mg/L		15-DEC-17	R3915716
Conductivity Conductivity	1240		10	umbos/cm		15-DEC-17	P2014070
Nitrate in Water by IC						10 BEO II	113314370
Nitrate (as N)	<0.040	DLM	0.040	mg/L		15-DEC-17	R3915716
Nitrate and Nitrite as N	<0.070		0.070	mg/L		19-DEC-17	
Nitrite (as N)	<0.020	DLM	0.020	mg/L		15-DEC-17	R3915716
			1				
				-			

\* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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### **Reference Information**

#### Sample Parameter Qualifier Key:

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Qualifier	Description							
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).							
est Method Re	eferences:							
ALS Test Code	Matrix	Test Description	Method Reference**					
CL-IC-N-WP	Water	Chloride in Water by IC	EPA 300.1 (mod)					
Inorganic anions	are analyzed by lon (	Chromatography with conductivity and/or UV o	letection.					
EC-WP	Water	Conductivity	APHA 2510B					
Conductivity of an and chemically in	n aqueous solution re hert electrodes.	fers to its ability to carry an electric current.	Conductance of a solution is measured between two spatially fixed					
NH3-COL-WP	Water	Ammonia by colour	APHA 4500 NH3 F					
Ammonia in wate nitroprusside and	er samples forms indo I measured colourmet	phenol when reacted with hypochlorite and phrically.	nenol. The intensity is amplified by the addition of sodium					
NO2+NO3-CALC	-WP Water	Nitrate+Nitrite	CALCULATION					
NO2-IC-N-WP	Water	Nitrite in Water by IC	EPA 300.1 (mod)					
	are analyzed by lon C	chromatography with conductivity and/or UV d	etection.					
norganic anions								
norganic anions	Water	Nitrate in Water by IC	EPA 300.1 (mod)					
Inorganic anions NO3-IC-N-WP norganic anions	Water are analyzed by Ion C	Nitrate in Water by IC hromatography with conductivity and/or UV d	EPA 300.1 (mod) etection.					

Laboratory Definition Code Laboratory Location ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA WP

#### Chain of Custody Numbers:

#### **GLOSSARY OF REPORT TERMS**

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory. UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION. Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



8

## Quality Control Report

			Workorder:	L2035531	R	eport Date:	19-DEC-17	Pag	e 1 of 2
Client:	Redfern F PO Box 9 Carberry BLAINE S	Farm Services - C 30 MB R0K 0H0 GANGSTER	arberry						
Test		Matrix	Poforonco	Popult	Qualifier	Unito	BBD	I locald	A
		Madix	Reference	Result	Quanner	Units	RPD	Limit	Analyzed
CL-IC-N-WP		Water							
Batch R	3915716								
Chloride (CI)	LCS			100.7		%		90-110	15-DEC-17
WG2685039-1 Chloride (CI)	MB			<0.50		mg/L		0.5	15-DEC-17
EC-WP		Water							
Batch R	3914970								
WG2686091-8 Conductivity	LCS			99.6		%		90-110	15-DEC-17
WG2686091-6 Conductivity	MB			<1.0		umhos/cm		1	15-DEC-17
NH3-COL-WP		Water							
Batch R	3915830								
WG2685831-6 Ammonia Tot	LCS al (as N)			99.0		0/.		05 445	10 BEO 13
WG2685831-5	MB			55.0		70		85-115	16-DEC-17
Ammonia, Tota	al (as N)			<0.010		mg/L		0.01	16-DEC-17
NO2-IC-N-WP		Water							
Batch R	3915716								
WG2685039-2	LCS			101.1		0/			
WG2685020 1	MD			101.1		%		90-110	15-DEC-17
Nitrite (as N)	MB			<0.010		mg/L		0.01	15-DEC-17
NO3-IC-N-WP		Water							
Batch R	3915716								
WG2685039-2	LCS								
Nitrate (as N)				101.1		%		90-110	15-DEC-17
WG2685039-1 Nitrate (as N)	MB			<0.020		mg/L		0.02	15-DEC-17

### **Quality Control Report**

Workorder: L2035531

Report Date: 19-DEC-17

Legend:

1

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate
	entering and a second

#### Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



## Appendix D – Manure Production Calculator



		Daily Manure Production				Durchustian David 4 <sup>2</sup>	Number of Animals		Total Manure Volume
Animal Type (A)	Animal Sub-type (B)	References (C)	Manure Type (D)	Default Manure Production (ft <sup>3</sup> /animal/day) (E)	Operation Manure Production <sup>1</sup> (ft <sup>3</sup> /animal/day) (F)	(Days) (G)	<sup>3</sup> (Capacity) (H)	Total Manure Volume (ft <sup>3</sup> ) (FxGxH)	for Semi-Solid and Liquid Manure (Imp Gal)
-			Semi-Solid 5	3.5				-	0.0
	Free Stall		Solid	3.4				-	
4			Liquid <sup>5</sup>	3.5				-	0.0
Dairy (milking cows		FRCs for Dain	Semi-Solid 5	3.6	3.6	400	4	5,760.00	35,884.8
livestock)	Tie Stall	1995	Solid	3.5				-	
iivestock)		1000	Liquid 5	3.6				-	0.0
	Loose Housing	1	Solid	3.0				-	
	Milking Parlour Manure and Washwater	1	Liquid	0.5					
	Beef cows including associated livestock		Solid	1.2				-	
Beef	Backgrounder (200 day)	pg 117, FPGs for	Solid	0.73				-	
Deel	Summer pasture / replacement heifers	Hogs 1998	Solid	0.85				-	
	Feeder cattle	1	Solid	1.1				-	
	Sows - farrow to finish (234 - 254 lbs)		Liquid	2.3	2.3	400	575	529,000.00	3,295,670.0
	Sows - farrow to wean (up to 11 lbs)	MAFRI website,	Liquid	0.8				-	0.0
Pigs	Sows - farrow to nursery (51 lbs)	FPGs for Pigs	Liquid	1				-	0.0
	Weanlings, Nursery (11 - 51 lbs)	2007	Liquid	0.1				-	0.0
	Grower / Finisher (51 - 249 lbs)		Liquid	0.25				-	0.0
				Yearly Manure Produ	uction	2	. 3	Total Manure	Total Manure Volume
Animal Type	Type of Operation		Default Manure Production (ft <sup>3</sup> /vear/bird space)		Operation Manure Production <sup>1</sup>	Production Period * (Days)	Number of Birds <sup>°</sup> (Capacity)	Volume (ft <sup>3</sup> ) (F/365xGxH)	for Semi-Solid and Liquid Manure (Imp Gal)
			, <b>,</b> , ,		(ft <sup>°</sup> /year/bird space)				
	Broilers – floor <sup>6</sup>			1.23	1.23	400	96,000	129,403	
	Broiler breeder hens <sup>7</sup>			2.3				-	
	Broiler breeder pullets <sup>6</sup>			0.99				-	
	Roasters – floor <sup>6</sup>	Table 3 ng 85		1.16				-	
Chickens	Layers – cage <sup>8</sup>	FPGs for Poultry		2.33	2.33	400	500	1,277	7,953.9
onioitorio	Layers – floor <sup>7</sup>	2000		1.68				-	
	Layers – solid pack <sup>9</sup>							-	
	Pullets – cage <sup>8</sup>	]		0.71				-	0.0
	Pullets – floor <sup>6</sup>	]		0.75				-	
	Pullets – solid pack <sup>9</sup>							-	
	Broilers <sup>6</sup>	Table 3, pg 85,		2.83	2.83	400	400	1,241	
Turkeys	Heavy toms <sup>6</sup>	FPGs for Poultry		5.58				-	
	Heavy hens <sup>6</sup>	2000		3.32				-	

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

#### Instructions and footnotes:

<sup>1</sup> ENTER the manure production estimate for your operation. If no estimate is available, use the default value provided in colum E. References for default daily and yearly manure production are provided in column C.

<sup>2</sup> ENTER the number of days worth of manure that will be produced. For earthen manure storage facilities the minimum storage requirement is 400 days. For steel and concrete manure storage facilities the minimum storage requirement is 250 days. <sup>3</sup> ENTER the total number of animals or birds that the operation can hold (e.g. barn or feedlot capacity).

<sup>4</sup> Milking cows includes all lactating and dry cows.

<sup>5</sup> Default manure production estimates for semi-solid and liquid dairy manure include manure and washwater from the milking parlour.

<sup>6</sup> 2 inches of wood shavings or 4 inches of straw placed on floor. Manure and litter removed from barn at 25% moisture content, with a density of 20 lb/ft<sup>3</sup>

<sup>7</sup> One-third litter floor, two-thirds slatted floor. Manure and litter removed from barn at 40% moisture content, with a density of 25 lb/ft<sup>3</sup>

 $^{8}$  Manure removed from barn at 90% moisture content with a density of 59  $\mathrm{lb/ft}^{3}$ 

<sup>9</sup> Poultry operations using litter (solid pack) must provide an estimate of yearly manure production

Reporting on Page 9 of Site Assessment							
Manure Type	Existing	Proposed	Total				
Liquid (IG/400 days)	3,295,670.0	35,884.8	3,331,554.8				
Solid (ft3/400 days)	72,789.0	59,131.0	131,920.0				



## Appendix E – Manure Application Field Characteristics Table





### MANURE APPLICATION FIELD CHARACTERISTICS TABLE

	Α	В	С	D	Е	F	G	н	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	NW 07-16-16 W	Rosedale	0	150	8m, Order 3 drain	146	3t(8)2tw(1)5w(1)		Rural Agricultural Area	Agricultural General (AG)
2	SW 07-16-16 W	Rosedale	0	150	8m, Order 3 drain	147	3t(8)2tw(1)5w(1)		Rural Agricultural Area	Agricultural General (AG)
3	SE 18-16-16 W	Rosedale	0	198	N/A	198	3t	31	Rural Agricultural Area	Agricultural General (AG)
4	SW 18-16-16 W	Rosedale	0	162	8m, Order 3 drain	159	3t	31	Rural Agricultural Area	Agricultural General (AG)
5	NE 19-16-16 W	Rosedale	0	150	8m, swamp	135	5w	20	Rural Agricultural Area	Agricultural General (AG)
6	NW 19-16-16 W	Rosedale	0	70	8m, swamp	66	3t(8)2tw(1)5w(1)	20	Rural Agricultural Area	Agricultural General (AG)
7	SE 19-16-16 W	Rosedale	0	70	8m, swamp	51	3t	20	Rural Agricultural Area	Agricultural General (AG)
8	NW 30-16-16 W	Rosedale	0	140	8m, swamp, Order 3 drain	132	2t(8)2tw(10)5w(1)	22	Rural Agricultural Area	Agricultural General (AG)
9	NW 01-16-17 W	Minto-Odanah	0	135	8m, swamp, Order 3 drain	129	3t(7)2w(2)5w(1)		Rural Agricultural Area	Agricultural General (AG)
10	NE 02-16-17 W	Minto-Odanah	0	160	N/A	160	3t(7)2tw(2)5w(1)		Rural Agricultural Area	Agricultural General (AG)
11	SE 11-16-17 W	Minto-Odanah	0	150	N/A	150	3t(7)2tw(2)5w(1)	9	Rural Agricultural Area	Agricultural General (AG)
12	SW 12-16-17 W	Minto-Odanah	0	155	8m, swamp	150	3t(7)2tw(2)5w(1)	9	Rural Agricultural Area	Agricultural General (AG)
13	NE 13-16-17 W	Minto-Odanah	0	140	8m, swamp, Order 3 drain	133	2t(8)2tw(1)5w(1)		Rural Agricultural Area	Agricultural General (AG)
14	NW 13-16-17 W	Minto-Odanah	0	135	8m, swamp	133	2t(8)2tw(1)5w(1)		Rural Agricultural Area	Agricultural General (AG)
15	SE 13-16-17 W	Minto-Odanah	0	145	8m, swamp, Order 3 drain	140	3t(8)2tw(1)5w(1)		Rural Agricultural Area	Agricultural General (AG)
16	NE 14-16-17 W	Minto-Odanah	0	160	N/A	160	2t(8)2tw(1)5w(1)	40	Rural Agricultural Area	Agricultural General (AG)
17	NW 14-16-17 W	Minto-Odanah	0	160	N/A	160	2t(7)2tw(2)5w(1)	40	Rural Agricultural Area	Agricultural General (AG)
18	SW 14-16-17 W	Minto-Odanah	0	160	N/A	160	2t(7)2w(2)5w(1)		Rural Agricultural Area	Agricultural General (AG)
19	NE 15-16-17 W	Minto-Odanah	0	160	N/A	160	2t(7)2w(2)5w(1)	12	Rural Agricultural Area	Agricultural General (AG)
20	NW 15-16-17 W	Minto-Odanah	0	160	N/A	160	2t(7)2w(2)5w(1)	12	Rural Agricultural Area	Agricultural General (AG)
		<b>—</b> •		0010						

Total Net Acreage: 2910

2829 **Total Net Acreage for** 

Manure Application:

A	_Ent	er the	lega	l descr	iption	n for	each	parce	el of l	land that wi	ll rec	eive man	ure: Sec,	Twp,	Rge c	or River	Lot (	includ	ing par	ish).	
_			_				-														

- \_Identify the Rural Municipality in which the parcel is located. В.
- 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 C. Crown lands that are under a spread agreement with the producer that holds the agricultural Crown land lease).
- Enter the total acreage for the parcel. D.
- \_\_\_\_\_\_ \_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). Ε. 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. 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.

Indicate the Development Plan and its by-law number in addition to the map designation for each field (ex. By-law #1/2008: AG).

\_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).



### MANURE APPLICATION FIELD CHARACTERISTICS TABLE

	Α	В	С	D	Е	F	G	н	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
21	NE 16-16-17 W	Minto-Odanah	0	140	N/A	140	3t(7)2tw(2)5w(1)		Rural Agricultural Area	Agricultural General (AG)
22	SE 16-16-17 W	Minto-Odanah	0	145	8m, swamp, Order 3 drain	142	3t(7)2tw(2)5w(1)		Rural Agricultural Area	Agricultural General (AG)
23	NE 17-16-17 W	Minto-Odanah	0	155	8m, swamp	151	2t(8)2tw(10)5w(1)	18	Rural Agricultural Area	Agricultural General (AG)
24	NW 17-16-17 W	Minto-Odanah	0	70	8m, swamp	68	2t(7)2w(2)5w(1)		Rural Agricultural Area	Agricultural General (AG)
25	SE 17-16-17 W	Minto-Odanah	0	70	8m, swamp	65	2t(7)2w(2)5w(1)		Rural Agricultural Area	Agricultural General (AG)
26	SE 20-16-17 W	Minto-Odanah	0	100	8m, swamp, Order 3 drain	96	2t(7)2w(2)5w(1)		Rural Agricultural Area	Agricultural General (AG)
27	NE 22-16-17 W	Minto-Odanah	0	155	8m, swamp	144	2t(7)2w(2)5w(1)		Rural Agricultural Area	Agricultural General (AG)
28	SE 22-16-17 W	Minto-Odanah	0	155	8m, swamp	154	2t(8)2tw(1)5w(1)	43	Rural Agricultural Area	Agricultural General (AG)
29	SW 22-16-17 W	Minto-Odanah	0	160	N/A	160	2t(7)2w(2)5w(1)		Rural Agricultural Area	Agricultural General (AG)
30	NE 23-16-17 W	Minto-Odanah	0	75	8m, swamp	74	2t(8)2tw(1)5w(1)		Rural Agricultural Area	Agricultural General (AG)
31	SE 23-16-17 W	Minto-Odanah	0	160	N/A	160	2t(8)2tw(1)5w(1)		Rural Agricultural Area	Agricultural General (AG)
32	NW 24-16-17 W	Minto-Odanah	0	80	8m, swamp, Order 3 drain	72	2t(8)2tw(1)5w(1)		Rural Agricultural Area	Agricultural General (AG)
33	SE 24-16-17 W	Minto-Odanah	0	155	8m, Order 3 drain	152	2t(8)2tw(1)5w(1)		Rural Agricultural Area	Agricultural General (AG)
34	SW 24-16-17 W	Minto-Odanah	0	100	N/A	100	2t(8)2tw(1)5w(1)		Rural Agricultural Area	Agricultural General (AG)
35	SE 25-16-17 W	Minto-Odanah	0	160	8m, swamp	159	2t(8)2tw(10)5w(1)		Rural Agricultural Area	Agricultural General (AG)
36	NE 32-16-17 W	Minto-Odanah	L	110	8m, swamp	80	3t(8)2tw(1)5w(1)		Rural Agricultural Area	Agricultural General (AG)
37	NW 32-16-17 W	Minto-Odanah	0	140	8m, swamp	129	2t(8)2tw(1)5w(1)		Rural Agricultural Area	Agricultural General (AG)
38	SE 32-16-17 W	Minto-Odanah	L	120	8m, swamp	100	2t(8)2tw(1)5w(1)	13	Rural Agricultural Area	Agricultural General (AG)
39	SW 32-16-17 W	Minto-Odanah	0	150	8m, swamp	135	2t(8)2tw(1)5w(1)	13	Rural Agricultural Area	Agricultural General (AG)

Total Net Acreage: 2400

2281 Total Net Acreage for

Manure Application:

Summary: Total Net Acreage: 5310

Total Net Acreage for Manure Application: 5110

A.	Enter the legal description for each parcel of land that will receive manure: Sec, Twp, Rge or River Lot (including parish).
В.	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.
Ε.	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.
Η.	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).

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).



## Appendix F – Manure Related Documents



Filic Filic tf 1 CROP NEAN YEAN 201 SJBMJ 201

COOLSPRING SPRING SPREAD CONFERMATION

Z	MANAC	SEMENT REGULATION	IORTALITIES		Moni Sustainable	
		Sectio	n A - Oper	ation Info	rmation	
2	Name of C	Operation	COOL SP	RING COL	.ONY	
` {	Legal Nan	e of Operation (if different)				
A.	Atiliate (k	Pgal name)				
	Mailing Ac	ldress	BOX 1015	;		LY NOT Applicable
18			MINNEDO	SA, MB	firmet a	ROJ 1E0
• •	Location e	of Operation	SW 24-16-	-17 W	Posta	MINTO
			Qtr Sec. Twp, R	Rge. ENVPM or R	liver Lot/Parish	Rural Municipality
	Civic Addr	035	Ministernet of X k	ina manjani , pinangangan ang pangangan		
	Date Opera	ation Established	JUNE 1, 19	986		
	Date Last I	Expanded (If applicable)				
	Name of C	ontact Person	JOSH WA	LDNER		
	Con	lact Numbers	204-867-724	3	204-865-	2363 204-865-2215
			Business	Residence	Cellular	Facsimile
	Ema	1 Marca				
1	Owner (leg	al name)	COOL SPF	RING COL	ONY	and the second
	Malli	ng Address	BOX 1015			
			MINNEDOS	SA, MB	Postal (	Code ROJ 1E0
	Cont	act Numbers				
	_		Business	Residence	Cellular	Facsimile
	Emai	ŝ	and and the providence of the second	and another addition as the data from a	našije ingelje je na se na Na se na s	An ann ann an
P	relerred C	orreapondence	Email [	Fax	Mali	
s	iubmit cor	mpleted plan to:			For Dep	partment Use Only
	By mail:	Environmental Approvals B Manitoba Sustainable Deve 160-123 Main Street (Box 8	ranch,. Iopment, I0), Winnipeg MB	R3C 1A5	*	
	By fax:	204-948-2420				
	By email	mmpregistration@gov.mb.d	ca		f	

Proprietary (contractitual) information will be protected in accordance with Manitoba law. Personal information is collected under the authority of *The Environment* Act, the Livestock Manure and Mortalities Management Regulation, and will be used to issue receipts, for surveys, administration and enforcement purposes. Information collected is protected by the privacy provisions of *The Freedom of Information and Protection of Privacy Act*.

Manure Management Plan Rev. May, 2016

Page 1

## Section B - Animal Unit Inventory

Livestock Species and Type'	A.U. Produced by One Livestock		Number of Livestock of Each Type	A.U. for Each Livestock Type
Eq. Beef - Feedlot Cattle	.769	X	500	205
HOGS - FARROW TO FINNISH	1.25	X	575	300
WEANL NGS	033	X	2150	/18./5
GROW/ERS-FINA.SHER	.143	X	4220	70 9°.
	2	X	Analysis for our operation over long . 14-1	taturan a
and a subject of the second	a server a server a server a	X		ч ч. такжа жал анд . О

Refer to Animal Unit Worksheet - Schedule A and retain for your records. If additional room is required, the operator may choose to submit a copy of Schedule A. USE ONLY CATEGORIES LISTED IN THE WORKSHEET. For a copy of Schedule A, refer to the livestock program website at www.gov.mt ca/conservation/unvprograms/livestock

## Section C – Manure Storage Systems Information<sup>1</sup>

Form of livestock manure stored	-		iquid manure ( emi-solid (pasi olid (handled v	pumped as liquid; 0-5% dry matter) te like; 5-25% dry matter) vith loader: over 25% dry matter)
Location of central manure storag Legal description of the location(s):	ge facilities G.P.S. Coor (Decimal De (if avaitat	rdinates egrees) ble)	Anticipated Storage Time (months)	Construction Permit Number(s) <sup>2</sup> or Registration Number(s) <sup>3</sup> for Storage
SW 24-16-17 W			13	LM-687
Location of solid manure field sto Field Storage Site #1 :	rage (complet	te only if y	you have field a	itorage)
Legal Location:	A	micipated	Storage Dura	tion (months)
Field Storage Site #2 : Legal Location:	A	nticipated	Storage Dura	tion (months)
Field Storage Site #3 :	59-19-19-19-19-19-19-19-19-19-19-19-19-19	1,	nghan Manjan I. San Ininan ang kang kang kang kang kang kang ka	nnen en er en
Legal Location:	Ar	nticipated	Storage Dura	tion (months)

<sup>1</sup> Use additional pages as necessary
 <sup>3</sup> A construction permit has been required by Manitoba Sustainable Development for construction of earthen manure storage structures since 1994 and for all other types of constructed manure storage structures since 1998. You may inquire about your permit number at your Manitoba Sustainable Development regional office (see last page).
 <sup>3</sup> Registration numbers will be issued by Manitoba Sustainable Development for earthen manure storage structures built before 1994 and all other constructed storage structures built prior to 1998.

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# Section D – Manure Information for Land Application

Semi-solid manure Solid manure:	e: Imp. gals Tons Cubic feet
If no manure is to be a	applied, check here;
Manure Analysis #	1 - Livestock Species & Type: HUGSLIQUED
Total Nitrogen 32	Libs/1000 Imp. gals. Libs/ton
Tester D	ibs/1000 imp. gals. Dibs/ton
% Dry Matter	P₂O₅ (P x 2.3) ∮ □ Ibs/1000 Imp. gals. □ Ibs/to
The nutrient values sta Actual. (Attach la Estimated. (Indica	iled above are: iboratory analysis report) ate source of information)
Manure Analysis #2	- Livestock Species & Tune
Total Nitrogen	Tibs/1000 Jmp gals TI lbc/top
NH <sub>4</sub>	Libs/1000 imp. gais. Libs/ton
Total P	P <sub>2</sub> O <sub>6</sub> (P x 2 3)
% Dry Matter	LJ IDS/ 1000 Imp. gals. LJ Ibs/to
Actual. (Attach lab Estimated. (Indica	ed above are: coratory analysis report) ite source of information)
Anure Analysis #3	- Livestock Species & Type
Total Nitrogen	Libs/1000 imp. gats. LT ibs/ton
NH4	Libs/1000 imp. gals. Libs/ton
Iotal P	P2Qs (P x 2.3) [] Ibs/1000 Imp date [] Ibs/1000
% Dry Matter	
he nutrient values state	ed above are: oratory analysis report) le source of information)
Estimated. (Indicat	
Estimated. (Indicat	Ure application starting data is purgers
Estimated. (Indicat	ure application starting date <sup>1</sup> : <u>9/12017</u>

Second Party. For copies of Schedules B and C refer to the livestock program website at:

## Section E - Field Application Summary

(Use additional pages as necessary)

ALL information below must be completed for each field listed BEFORE any manure spreading occurs.

	NAME AND AND ADDRESS INCOMENTS INSIGATION AND	The second secon	
Legal Land Description	n 1/2 15-16-17	e1/216-16-17	E CONTRACTOR OF CONTRACTOR
Field ID (optional)	12	11	anna ha na
Legal Owner's Name and Phone	COOL SPRING COLONY	COOL SPRING COLONY	
Land: Own, Lease, or Agreement	Own	Own	annalise and a second
Field Size * (acres)	320	320	
Soil Class and Subclass ?	2t(8)2tw(1)5w(1)	2t(8)2tw(1)5w(1)	
Proposed Crop	canola	canola	
Is the Proposed Crop Grazed?	No	No	Ur balle star specific de star specific
0 - 6 inch (15 cm) depth soll phosphorus (P) in ppm 3	30 ppm	31 ppm	antin Sautometer
0 - 24 Inch (60 cm) depth soll nitrate (NO <sub>1</sub> -N) in Ibs/acre <sup>3</sup>	31	35	AAAAAAA TAYAA AAAAAAAAAAAAAAAAAAAAAAAAA
bus/acre, ibs/acre tons/acre	60	60	
Crop Nitrogen Recommendation (Ibs N/acre)	179	175	and and a second and a second and a second and a second a
Crop Removal of Phosphate (ibs P <sub>1</sub> O <sub>3</sub> /acre)	60	60	nijenjav kostotu witte stanjanus man
Manure Application Rate (Imp. gal/acre or tons/acre) * if using multi-year P <sub>2</sub> O <sub>5</sub> rate, select the # enual to multiple of using 5	6000	6000	
Manure Analysis #1, #2, or #3 (from Section D)	1	1	
Application Start Date month / day / year)	6/1/2018	6/1/2018	and we and a second
Application Method - Select the corresponding letter	F	F	
Non manure Nitrogen Fertilizer	0	0	and the second se
Ion manure Phosphate Fertilizer Ibs P <sub>2</sub> O <sub>5</sub> /acres	0	0	additud an ages franklive white white
fanure Applicator - Name, Phone, Licence # *	coolspring	coolspring	
the statement was and the statement without a statement was an		1	

Indicate only the available acres for manure spreading (exclusive of setbacks from surface water courses, etc.).
 Must list correct Agricultural Capability Class and Subclass as determined by Published Manitoba Soil Survey Report or electronic

Matt list context synumical capacity class and Succass as determined by Published Manitoba Soli Survey Report or electron. \*As shown on the soil analysis report appended to this form. If soil analysis reports are not available at the time of submitting the form, they must be forwarded to Manitoba Sustainable Development 14 days before application of manure to allow for processing.
\* Indicate the recommended nitrogen (N) application rate suggested by the soil fertility guide or soil analysis report, whichever is

<sup>1</sup> Indicate the crop removal rate of phosphate (P<sub>2</sub>O<sub>5</sub>) as determined by the most appropriate source of information.
<sup>5</sup> When soil test phosphorus levels are 60 ppm to 179 ppm manure may be applied at a rate of up to 5 times the annual crop removal.

When somes prosphores reversive on point to 175 ppm manufer may be appred at a rate of up to o times the annual crop removative of P<sub>2</sub>O<sub>5</sub>. <u>Schedule D</u> must be completed when using a multi-year option.
Choose one of the following and put the corresponding letter on the form: A. Broadcast and incorporate after 2 days. B. Broadcast and incorporate after 3 days. C. Broadcast and incorporation within 2 days. D. Broadcast and incorporation. E. Broadcast and no incorporation. E. Broadcast and no incorporation.

<sup>4</sup> As of January 1, 2008 Commercial and Off-farm Manure Applicators must be trained and Licenced with Manuroba Agriculture.

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Page 4

*			S	OIL	TEST	REPORT	·		N	
FARM	SERVICES		FIELD ID EMIE E IC FIELD NAM	FIEL HOG	D #11 FALL	2019				
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SUBMI COOL SPRINGS CO	ITTED FOR:		REDPERN 629 4TH S	SUE FARM- TREET	CARBI	ED BY: RE	3021		3	
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0-6" 0 6 18" 0	25 mmho/cm	и і ін Кларода		Soll ;	5H 191	effer pH	Capacity	94 CR 951	Mg %K	ka Na 🥱 H

General Comments. (Reduce Lime by 1/2 for W.MN. W.30WA and the DAKOTAS). Crop 1: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal. P205 = 54 X2Q = 27 AGVISE Broadcast guidelines will huild P & K test levels to the high range over several years.

https://submit.agvise.com/agvisorapp/report?Key-7495018d-df7a-4bd8-a791-8130ff460bd... 9/21/2018

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## Section F -Certification of Manure Management Plan

This plan must be certified by the person who prepares it. Select the appropriate box.

Uperator		
I hereby certify with the Livesta Environment A	the information contained in ock Manure and Mortalities I ot.	n this plan is true and belleve this plan complies Nanagement Regulation (M.R. 42/98) of The
Signature of the	operator	Date:
Other <sup>1</sup>	the information contained in	
with the Livesto Environment Ac	ck Manure and Mortalities & t. rements to prepare manure	Tanagement Regulation (M.R. 42/98) of The
13(7) of M.R. 42 BLAINE SA	98. NGSTER	nengement plans in accordance will Section
Name of person p Address: 629 4	reparing the plan on behalf of THAVE.	the operator
CARBI	ERRY, MB ROK OHO	any and any
Contact number: MIA # <sup>2</sup> /CCA #:	204-570-0319	
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Certain livestock operations in Manitoba are required under Section 13(1) of the Livestock Manure and Mortalities Management Regulation (M.R. 42/98) of *The Environment Act*, to submit an annual manure management plan to Manitoba Sustainable Development. The plan must be submitted by July 10 for fertilization programs beginning in the fall or by February 10 for fertilization programs beginning in the spring. Late submissions are subjected to \$100 (+ 5% GST) administration fee.

Note: Confirmation of manure spreading including legal land description, actual application rates, analysis of manure, field maps, manure applicator licence # (if applicable), must be submitted after manure is spread. Additional plans will not be registered unless this information is received by Manitoba Sustainable Development.

Forms and other relevant information can be accessed online at . ttp://www.gov.trib.ce/conservation/cmvp:ograms/ivestr.ck

Manure Management Plan Rev. May. 2016

Page 5
### **Spreading Confirmation Sheet**

- Spreading Confirmation Sheet must be submitted AFTER spreading to confirm manure application details.
- Subsequent plan will not be registered unless Spreading Confirmation Sheets for all applied fields are received.



\* To convert US gallons to Imperial gallons, multiply US gal by 0.83 (i.e. Imp gal = US gal X 0.83) \*\* To convert manure phosphorus (P) to phosphate (P2O5), multiply P by 2.3 (i.e. P2O5 = P X 2.3)

If manure was not applied to any fields, state the reason in the space provided below:

16-16-17 WILL BE SPRINE APPLIED of

White A Sim Signature

Date 1/10 4 /18

FILE 2 SOBMIT 2019 Man Man Man Man Man Legal Man Legal Man 2020 Affiliata Mailing

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. )	LIVESTOCK MANURE AND MO MANAGEMENT REGULATION	ORTALITIES	S	Manil	oba
	Manure Management Plan			Sustainable	Development
	Section	n A – Ope	ration Info	ormation	
	Name of Operation	COOL SI	PRING CO	LONY	
	Legal Name of Operation (if different)				
	Affiliate (legal name)				
	Mailing Address	BOX 101	5		
		MINNED	OSA, MB	Posta	ROJ 1E0
	Location of Operation	SW 24-10	6-17 W	1 0010	MINTO
	<b></b>	Qtr. Sec. Twp.	Rge. E/WPM or	River Lot/Parish	Rural Municipality
	Civic Address		1000	ann - Naghliol Airlice - ear an an ann an Anna Anna Anna Anna Anna	
	Date Operation Established	JUNE I,	1900	10	
	Date Last Expanded (if applicable)	10011144	A1 01 000		
	Name of Contact Person	JOSH W	ALDNER		
	Contact Numbers	204-867-72	243	204-865-	2363 204-865-2215
		Business	Residence	Cellular	Facsimile
	Email	0001 81			
	Owner (legal name)				
	Mailing Address	BOX 101	5		
		MINNEDO	DSA, MB	Postal	Code ROJ 1E0
	Contact Numbers				
		Business	Residence	Cellular	Facsimile
	Email	********	and the second		
	Preferred Correspondence	Email	Fax	Mail	
	Submit completed plan to:			For De	partment Use Only
	By mail: Environmental Approvals Br Manitoba Sustainable Deve 160-123 Main Street (Box 8	ranch,. Iopment, 0), Winnipeg I	MB R3C 1A5		
	By fax: 204-948-2420				
	By email: mmpregistration@gov.mb.	<u>2a</u>			

Proprietary (confidential) information will be protected in accordance with Manitoba law. Personal information is collected under the authority of *The Environment Act*, the Livestock Manure and Mortalities Management Regulation, and will be used to issue receipts, for surveys, administration and enforcement purposes. Information collected is protected by the privacy provisions of *The Freedom of Information and Protection of Privacy Act*.

Livestock Species and Type <sup>1</sup>	A.U. Produced by One Livestock		Number of Livestock of Each Type	A.U. for Each Livestock Type
Eg. Beef - Feedlot Cattle	.769	Х	500	385
HOGS - FARROW TO FINNISH	1.25	Х	575	718.75
WEANLINGS	.033	Х	2150	70.95
GROWERS-FINNISHER	.143	Х	4220	603.46
BOARS	.2	X	15	3
		X		0
		Х		0

### **Section B - Animal Unit Inventory**

Refer to Animal Unit Worksheet -Schedule A and retain for your records. If additional room is required, the operator may choose to submit a copy of Schedule A. USE ONLY CATEGORIES LISTED IN THE WORKSHEET. For a copy of Schedule A, refer to the livestock program website at: www.gov.mb.ca/conservation/envprograms/livestock

### Section C – Manure Storage Systems Information<sup>1</sup>

Form of livestock manure stored			quid manure ( emi-solid (pasi olid (handled v	pumped as liquid; 0-5% dry matter) te like; 5-25% dry matter) vith loader; over 25% dry matter)
Location of central manure storage	e facilities	5		
Legal description of the location(s):	G.P.S. Co (Decimal (if ava	oordinates Degrees) iilable)	Anticipated Storage Time (months)	Construction Permit Number(s) <sup>2</sup> or Registration Number(s) <sup>3</sup> for Storage
SW 24-16-17 W			13	LM-687
Location of solid manure field sto	rage (com	plete only if	you have field	storage)
Field Storage Site #1 :				lik
Legal Location:		Anticipated Storage Duration (months)		
Field Storage Site #2 :		-		
Legal Location:		Anticipate	d Storage Dur	ation (months)
Field Storage Site #3 :				
Legal Location:	*******	Anticipate	d Storage Dur	ation (months)

<sup>&</sup>lt;sup>1</sup> Use additional pages as necessary

<sup>&</sup>lt;sup>2</sup> A construction permit has been required by Manitoba Sustainable Development for construction of earthen manure

storage structures since 1994 and for all other types of constructed manure storage structures since 1998. You may inquire about your permit number at your Manitoba Sustainable Development regional office (see last page). <sup>3</sup> Registration numbers will be issued by Manitoba Sustainable Development for earthen manure storage structures built

before 1994 and all other constructed storage structures built prior to 1998.

# Section D – Manure Information for Land Application

Liquid manure:	3.750.000 Imp. gals
Semi-solid manure: Solid manure:	Imp. gals. Tons Cubic feet
If no manure is to be ap	plied, check here:
Manure Analysis #1Total Nitrogen32NH₄20Total P9% Dry Matter2	<ul> <li>Livestock Species &amp; Type: HOGS LIQUID</li> <li>Ibs/1000 Imp. gals.</li> <li>Ibs/1000 Imp. gals.</li> <li>Ibs/1000 Imp. gals.</li> <li>P₂O₅ (P x 2.3) 9</li> <li>Ibs/1000 Imp. gals.</li> <li>Ibs/1000 Imp. gals.</li> </ul>
The nutrient values state Actual. (Attach lab Estimated. (Indicat	ed above are: oratory analysis report) te source of information)
Manure Analysis #2 Total Nitrogen NH <sub>4</sub> Total P % Dry Matter	Livestock Species & Type:     Ibs/1000 Imp. gals.     Ibs/ton     Ibs/1000 Imp. gals.     Ibs/ton     P₂O₅ (P x 2.3)     Ibs/ton     Ibs/1000 Imp. gals.     Ibs/ton
The nutrient values state Actual. (Attach lab Estimated. (Indicat	ad above are: oratory analysis report) te source of information)
Manure Analysis #3 Total Nitrogen NH <sub>4</sub> Total P % Dry Matter	Livestock Species & Type:     Ibs/1000 Imp. gals.     Ibs/ton     Ibs/1000 Imp. gals.     Ibs/ton     P₂O₅ (P x 2.3)     Ibs/ton     Ibs/1000 Imp. gals.     Ibs/ton
The nutrient values state Actual. (Attach labe Estimated. (Indicat	ed above are: oratory analysis report) te source of information)
Earliest anticipated man	ure application starting date <sup>1</sup> : <u>9/1/2018</u> (Month / Day / Year)
<sup>1</sup> This is the earliest date the fir	st spread of manure will occur on this plan (plan year begins August 15 <sup>th</sup> and ends August

<u>NOTE:</u> At least one manure nutrient analysis or estimate is required for each manure form per livestock species. If manure is to be treated, please complete and attach <u>Schedule B – Manure Treatment</u> If manure is to be transferred to another party, please complete and attach Schedule <u>C – Transfer of Manure or Effluent to a</u> <u>Second Party</u>. For copies of Schedules B and C refer to the livestock program website at: www.gov.mb.ca/conservation/envprograms/livestock

### Section E - Field Application Summary

(Use additional pages as necessary)

ALL information below must be completed for each field listed BEFORE any manure spreading occurs.

Legal Land Description	w1/2ne1/414-16-17	e1/2mw1/413-16-17	s1/2,24-16-17	s1/218-16-16
Field ID (optional)	13	14	9	15
Legal Owner's Name and Phone	COOL SPRING COLONY	COOL SPRING COLONY	coolspring	coolspring
Land: Own, Lease, or Agreement	Own	Own	Own	Own
Field Size <sup>1</sup> (acres)	480	480	360	320
Soil Class and Subclass <sup>2</sup>	2t(8)2tw(1)5w(1)	2t(8)2tw(1)5w(1)	2t(8)2tw(1)5w(1)	2t(8)2tw(1)5w(1)
Proposed Crop	canola	canola	canola	canola
Is the Proposed Crop Grazed?	No	No	No	No
0 – 6 inch (15 cm) depth soil phosphorus (P) in ppm <sup>3</sup>			Ger (fr. 1997)	
0 – 24 inch (60 cm) depth soil nitrate (NO <sub>3</sub> <sup>-</sup> -N) in lbs/acre <sup>3</sup>				
Target Yield (bus/acre, lbs/acre, tons/acre)				
Crop Nitrogen Recommendation 4 (Ibs N/acre)				
Crop Removal of Phosphate <sup>5</sup> (Ibs P <sub>2</sub> O <sub>5</sub> /acre)				
Manure Application Rate (Imp. gal/acre or tons/acre) * if using multi-year P <sub>2</sub> O <sub>5</sub> rate, select the # equal to multiple of years <sup>8</sup>				
Manure Analysis #1, #2, or #3 (from Section D)	1	1	1	1
Application Start Date (month / day / year)				
Application Method - Select the corresponding letter <sup>7</sup>	F	F	F	F
Non manure Nitrogen Fertilizer (Ibs N/acre)	- control data e			
Non manure Phosphate Fertilizer (lbs P <sub>2</sub> O <sub>5</sub> /acre)				
Manure Applicator ~ Name, Phone, Licence # <sup>8</sup>				

<sup>1</sup> Indicate only the available acres for manure spreading (exclusive of setbacks from surface water courses, etc.).

<sup>2</sup> Must list correct Agricultural Capability Class and Subclass as determined by Published Manitoba Soil Survey Report or electronic data distributed by Manitoba Land Initiative website. Use the worst class manure will be spread on.

<sup>3</sup>As shown on the soil analysis report appended to this form. If soil analysis reports are not available at the time of submitting the form, they must be forwarded to Manitoba Sustainable Development 14 days before application of manure to allow for

processing. <sup>4</sup> Indicate the recommended nitrogen (N) application rate suggested by the soil fertility guide or soil analysis report, whichever is lower.

<sup>5</sup> Indicate the crop removal rate of phosphate (P<sub>2</sub>O<sub>5</sub>) as determined by the most appropriate source of information.

When soil test phosphorus levels are 60 ppm to 179 ppm manure may be applied at a rate of up to 5 times the annual crop removal rate of P2O5. Schedule D must be completed when using a multi-year option.

<sup>7</sup> Choose one of the following and put the corresponding letter on the form: A. Broadcast and incorporate after 2 days, B. Broadcast + Incorporate after 3 days. C. Broadcast and incorporate within 2 days. D. Broadcast and no incorporation. E. Broadcast and no incorporation on forages. F. Injection. G. Irrigation and incorporation within 3 days. H. Irrigation and no incorporation. \* As of January 1, 2008 Commercial and Off-farm Manure Applicators must be trained and Licenced with Manitoba Agriculture.

### Section F -Certification of Manure Management Plan

This plan must be certified by the person who prepares it. Select the appropriate box.

Plan prepared by:	
Operator	
I hereby certify the information contained in the with the Livestock Manure and Mortalities Manure Environment Act.	his plan is true and believe this plan complies nagement Regulation (M.R. 42/98) of The
Signature of the operator	Date:
✓ Other <sup>1</sup>	
I hereby certify the information contained in the with the Livestock Manure and Mortalities Man Environment Act. I meet the requirements to prepare manure ma 13(7) of M.R. 42/98.	his plan is true and believe this plan complies nagement Regulation (M.R. 42/98) of The anagement plans in accordance with Section
BLAINE SANGSTER	
Name of person preparing the plan on behalf of th	ne operator
Address: 629 4TH AVE.	
CARBERRY, MB R0K 0H0	
Contact number: 204-570-0319	
MIA # <sup>2</sup> /CCA #: 26200	
Blaine Sangster Diversity Blane Sanguter on Reine Sanguter Sangute	<sub>Date:</sub> june 28 2019
<sup>1</sup> Must meet the requirements to prepare manure management ste	ns as per Section 12/7) of M.D. 40/00
inner meet me requiremente to prepare manure management pla	US AS THE SECTOR TSULTATION & AVIOR

Certain livestock operations in Manitoba are required under Section 13(1) of the Livestock Manure and Mortalities Management Regulation (M.R. 42/98) of *The Environment Act*, to submit an annual manure management plan to Manitoba Sustainable Development. The plan must be submitted by **July 10** for fertilization programs beginning in the fall, or by **February 10** for fertilization programs beginning in the spring. Late submissions are subjected to \$100 (+ 5% GST) administration fee.

Note: Confirmation of manure spreading including legal land description, actual application rates, analysis of manure, field maps, manure applicator licence # (if applicable), must be submitted after manure is spread. Additional plans will not be registered unless this information is received by Manitoba Sustainable Development.

Forms and other relevant information can be accessed online at http://www.gov.mb.ca/conservation/envprograms/livestock

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FILE	#3 C	hackeds	
SuBMEI	LIVESTOCK MANURE AND M MANAGEMENT REGULATION	ORTALITIES	Manitoba 🐂
2017	Manure Management Plan	1999 Martin and a state of the	Sustainable Development
900	Sectio	n A – Operation In	ormation
C CCC .	Name of Operation	COOL SPRING CO	DLONY
YE	Legal Name of Operation (if different)	*****	
2020	Affiliate (legal name)	AN BENEVIN OF THE SECOND S	Not Applicable
X	Mailing Address	BOX 1015	
		MINNEDOSA, MB	Postal Code ROJ 1E0
	Location of Operation	SW 24-16-17 W	MINTO
	Civio Addrese	Qtr. Sec. Twp. Rge, E/WPM (	or River Lot/Parish Rural Municipality
	Date Operation Established	JUNE 1, 1986	
	Date Last Expanded (if applicable)	akkado kkonstantanta katalakka katalakka katalakka katalakka kuna katalak katalak katalak katalak katalak kata	49998894999999999999999999999999999999
	Name of Contact Person	JOSH WALDNER	
	Contact Numbers	204-867-7243	204-865-2363 204-865-2215
		Business Residence	e Cellular Facsimile
	Email		
	Owner (legal name)		JLONY
	Mailing Address	MINNEDOSA MB	R011E0
	Contact Numbers		Postal Code
	Contact Mumbers	Business Residenc	e Cellular Facsimile
	Email		
	Preferred Correspondence	Email Fax	Mail
	Submit completed plan to:		For Department Use Only
	By mail: Environmental Approvals Manitoba Sustainable Dev 160-123 Main Street (Box	Branch,. /elopment, 80), Winnipeg MB_R3C 1A	5
	By fax: 204-948-2420	<del>-</del>	
	By email: <u>mmpregistration@gov.ml</u>	<u>o.ca</u>	

Proprietary (confidential) information will be protected in accordance with Manitoba law. Personal information is collected under the authority of The Environment Act, the Livestock Manure and Mortalities Management Regulation, and will be used to issue receipts, for surveys, administration and enforcement purposes. Information collected is protected by the privacy provisions of The Freedom of Information and Protection of Privacy Act.

Livestock Species and Type <sup>1</sup>	A.U. Produced by One Livestock		Number of Livestock of Each Type	A.U. for Each Livestock Type
Eg. Beef – Feedlot Cattle	.769	Х	500	385
Broilers	.0050	Х	60000	300
		Х		0
		Х		0
		X		0
		Х		0
		Х		0

### Section B - Animal Unit Inventory

Refer to <u>Animal Unit Worksheet</u> <u>Schedule A</u> and retain for your records. If additional room is required, the operator may choose to submit a copy of Schedule A. USE ONLY CATEGORIES LISTED IN THE WORKSHEET. For a copy of Schedule A, refer to the livestock program website at: <u>www.gov.mb.ca/conservation/envprograms/livestock</u>

### Section C – Manure Storage Systems Information<sup>1</sup>

Form of livestock manure stored		□ L □ S ☑ S	iquid manure (p emi-solid (past olid (handled w	oumped as liquid; 0-5% dry matter) e like; 5-25% dry matter) <i>r</i> ith loader; over 25% dry matter)
Location of central manure storag	e facilities			
Legal description of the location(s):	G.P.S. Co (Decimal I (if avai	ordinates Degrees) Iable)	Anticipated Storage Time (months)	Construction Permit Number(s) <sup>2</sup> or Registration Number(s) <sup>3</sup> for Storage
		1 0002 Gat VMNPF	11 1 PPODAS (1 April 1000 - 1000	
Location of solid manure field sto	rage (comp	lete only if	you have field a	storage)
Field Storage Site #1 :				
Legal Location: 17-16-7		Anticipate	d Storage Dura	ation (months) 22
Field Storage Site #2 :				
Legal Location: 36-16-16		Anticipate	d Storage Dura	ation (months) 22
Field Storage Site #3 :				
Legal Location:		Anticipate	d Storage Dura	ation (months)

<sup>1</sup>Use additional pages as necessary

<sup>2</sup> A construction permit has been required by Manitoba Sustainable Development for construction of earthen manure storage structures since 1994 and for all other types of constructed manure storage structures since 1998. You may inquire about

your permit number at your Manitoba Sustainable Development regional office (see last page). <sup>3</sup> Registration numbers will be issued by Manitoba Sustainable Development for earthen manure storage structures built before 1994 and all other constructed storage structures built prior to 1998.

# Section D – Manure Information for Land Application

Total Volume of Manure to be Land Applied
Liquid manure:       Imp. gals.         Semi-solid manure:       Imp. gals.         Solid manure:       Imp. gals.         200       Imp. gals.         If no manure is to be applied, check here:       Imp. gals.
Manure Analysis #1 - Livestock Species & Type: Chicken's (Broller) 300 A. U.
Total Nitrogen 32.9       Ibs/1000 Imp. gals.       Ibs/ton         NH4       Ibs/1000 Imp. gals.       Ibs/ton         Total P       18.3       P <sub>2</sub> O <sub>5</sub> (P x 2.3)       Ibs/1000 Imp. gals.         % Dry Matter       898.6       Ibs/ton       Ibs/1000 Imp. gals.
The nutrient values stated above are: Actual. (Attach laboratory analysis report) Estimated. (Indicate source of information)
Manure Analysis #2 – Livestock Species & Type:         Total Nitrogen         NH4         Dis/1000 Imp. gals.         Total P         % Dry Matter
The nutrient values stated above are: Actual. (Attach laboratory analysis report) Estimated. (Indicate source of information)
Manure Analysis #3 – Livestock Species & Type:         Total Nitrogen         NH4         Total P         % Dry Matter
The nutrient values stated above are: Actual. (Attach laboratory analysis report) Estimated. (Indicate source of information)
Earliest anticipated manure application starting date <sup>1</sup> : <u>9/1/2019</u> (Month / Day / Year)
<sup>1</sup> This is the earliest date the first spread of manure will occur on this plan (plan year begins August 15 <sup>th</sup> and ends August 14 <sup>th</sup> of the following year).

<u>NOTE:</u> At least one manure nutrient analysis or estimate is required for each manure form per livestock species. If manure is to be treated, please complete and attach <u>Schedule B – Manure Treatment</u> If manure is to be transferred to another party, please complete and attach Schedule <u>C – Transfer of Manure or Effluent to a</u> <u>Second Party</u>. For copies of Schedules B and C refer to the livestock program website at: <u>www.gov.mb.ca/conservation/envprograms/livestock</u>

### Section E - Field Application Summary

(Use additional pages as necessary)

ALL information below must be completed for each field listed BEFORE any manure spreading occurs.

the state of the s				
Legal Land Description	NW 30-16-16	SE 25-16-17	n 1/217 16 17	se20-16-17
Field ID (optional)	4	3	24	21
Legal Owner's Name and Phone	COOL SPRING COLONY	COOL SPRING COLONY	COOL SPRING COLONY	coolspring colony
Land: Own, Lease, or Agreement	Own	Own	Own	Own
Field Size <sup>1</sup> (acres)	160	160	360	100
Soil Class and Subclass <sup>2</sup>	2t(8)2tw(191)5w(1)	2t(8)2tw(1)5w(1)	2t(8)2tw(10)5w(1)	2t(8)2tw(1)5w(1)
Proposed Crop				
Is the Proposed Crop Grazed?	No	No	No	No
0 – 6 inch (15 cm) depth soil phosphorus (P) in ppm <sup>3</sup>		444440000000000000000000000000000000000		
0 – 24 inch (60 cm) depth soil nitrate (NO <sub>3</sub> -N) in lbs/acre <sup>3</sup>				
Target Yield (bus/acre, lbs/acre, tons/acre)				
Crop Nitrogen Recommendation <sup>4</sup> (Ibs N/acre)	- varidaat	Holds of the data when a set of the set		
Crop Removal of Phosphate <sup>5</sup> (Ibs P <sub>2</sub> O <sub>5</sub> /acre)				
Manure Application Rate (Imp. gal/acre or tons/acre) * if using multi-year $P_2O_5$ rate, select the # equal to multiple of years <sup>6</sup>				
Manure Analysis #1, #2, or #3 (from Section D)	1	1	1	1
Application Start Date (month / day / year)				
Application Method - Select the corresponding letter <sup>7</sup>	С	С	С	С
Non manure Nitrogen Fertilizer (Ibs N/acre)				
Non manure Phosphate Fertilizer (Ibs P <sub>2</sub> O <sub>5</sub> /acre)				
Manure Applicator – Name, Phone, Licence # <sup>6</sup>				

<sup>1</sup> Indicate only the available acres for manure spreading (exclusive of setbacks from surface water courses, etc.).

<sup>2</sup> Must list correct Agricultural Capability Class and Subclass as determined by Published Manitoba Soil Survey Report or electronic data distributed by Manitoba Land Initiative website. Use the worst class manure will be spread on.

<sup>3</sup> As shown on the soil analysis report appended to this form. If soil analysis reports are not available at the time of submitting the form, they <u>must</u> be forwarded to Manitoba Sustainable Development 14 days **before** application of manure to allow for processing.

<sup>5</sup> Indicate the crop removal rate of phosphate (P<sub>2</sub>O<sub>5</sub>) as determined by the most appropriate source of information.

When soll test phosphorus levels are 60 ppm to 179 ppm manure may be applied at a rate of up to 5 times the annual crop removal rate of P<sub>2</sub>O<sub>5</sub>. Schedule D must be completed when using a multi-year option.

\* As of January 1, 2008 Commercial and Off-farm Manure Applicators must be trained and Licenced with Manitoba Agriculture.

Indicate the recommended nitrogen (N) application rate suggested by the soil fertility guide or soil analysis report, whichever is lower.

 <sup>&</sup>lt;sup>7</sup> Choose one of the following and put the corresponding letter on the form: A. Broadcast and incorporate after 2 days, B. Broadcast + Incorporate after 3 days. C. Broadcast and incorporate within 2 days. D. Broadcast and no incorporation. E. Broadcast and no incorporation on forages. F. Injection. G. Irrigation and incorporation within 3 days. H. Irrigation and no incorporation.

### Section F -Certification of Manure Management Plan

This plan must be certified by the person who prepares it. Select the appropriate box.

Operator	
I hereby certify the information contained in t with the Livestock Manure and Mortalities Ma Environment Act.	his plan is true and believe this plan complies nagement Regulation (M.R. 42/98) of The
	Date:
Signature of the operator	
/ Other <sup>1</sup>	
I hereby certify the information contained in t	his plan is true and believe this plan complian
with the Livestock Manure and Mortalities Ma Environment Act.	nagement Regulation (M.R. 42/98) of The
with the Livestock Manure and Mortalities Ma Environment Act. I meet the requirements to prepare manure m 13(7) of M.R. 42/98.	nagement Regulation (M.R. 42/98) of The anagement plans in accordance with Section
with the Livestock Manure and Mortalities Ma Environment Act. I meet the requirements to prepare manure m 13(7) of M.R. 42/98. BLAINE SANGSTER	nagement Regulation (M.R. 42/98) of The anagement plans in accordance with Section
with the Livestock Manure and Mortalities Ma Environment Act. I meet the requirements to prepare manure m 13(7) of M.R. 42/98. BLAINE SANGSTER Name of person preparing the plan on behalf of the	nagement Regulation (M.R. 42/98) of The anagement plans in accordance with Section
with the Livestock Manure and Mortalities Ma Environment Act. I meet the requirements to prepare manure m 13(7) of M.R. 42/98. BLAINE SANGSTER Name of person preparing the plan on behalf of the Address: 629 4TH AVE.	nagement Regulation (M.R. 42/98) of The anagement plans in accordance with Section
with the Livestock Manure and Mortalities Ma Environment Act. I meet the requirements to prepare manure m 13(7) of M.R. 42/98. BLAINE SANGSTER Name of person preparing the plan on behalf of the Address: 629 4TH AVE. CARBERRY, MB R0K 0H0	nagement Regulation (M.R. 42/98) of The anagement plans in accordance with Section he operator
with the Livestock Manure and Mortalities Ma Environment Act. I meet the requirements to prepare manure m 13(7) of M.R. 42/98. BLAINE SANGSTER Name of person preparing the plan on behalf of the Address: 629 4TH AVE. CARBERRY, MB ROK 0H0 Contact number: 204-570-0319	nagement Regulation (M.R. 42/98) of The
with the Livestock Manure and Mortalities Ma Environment Act. I meet the requirements to prepare manure m 13(7) of M.R. 42/98. BLAINE SANGSTER Name of person preparing the plan on behalf of the Address: 629 4TH AVE. CARBERRY, MB ROK 0H0 Contact number: 204-570-0319 MIA # <sup>2</sup> /CCA #: 26200	har of plan is the and believe this plan complete nagement Regulation (M.R. 42/98) of The nanagement plans in accordance with Section he operator
with the Livestock Manure and Mortalities Ma Environment Act. I meet the requirements to prepare manure m 13(7) of M.R. 42/98. BLAINE SANGSTER Name of person preparing the plan on behalf of the Address: 629 4TH AVE. CARBERRY, MB ROK 0H0 Contact number: 204-570-0319 MIA # <sup>2</sup> /CCA #: 26200 Blaine Sangster Distribution frame Barress, or, CPC Market Participation of the Statestor Provided in Tambarras, or, CPC Market Participation of the Statestor Provided in Tambarras, or, CPC	nagement Regulation (M.R. 42/98) of The anagement plans in accordance with Section he operator

Certain livestock operations in Manitoba are required under Section 13(1) of the Livestock Manure and Mortalities Management Regulation (M.R. 42/98) of *The Environment Act*, to submit an annual manure management plan to Manitoba Sustainable Development. The plan must be submitted by **July 10** for fertilization programs beginning in the fall, or by **February 10** for fertilization programs beginning in the fall, or by **February 10** for fertilization programs beginning in the spring. Late submissions are subjected to \$100 (+ 5% GST) administration fee.

Note: Confirmation of manure spreading including legal land description, actual application rates, analysis of manure, field maps, manure applicator licence # (if applicable), must be submitted after manure is spread. Additional plans will not be registered unless this information is received by Manitoba Sustainable Development.

Forms and other relevant information can be accessed online at http://www.gov.mb.ca/conservation/envprograms/livestock

COMFERMATION H

FALE #4

FOR CROPYEAR 2020



Conservation and Water Stewardship Environmental Approvals / Livestock Section 160 – 123 Main Street (Box 80) Winnipeg, MB R3C 1A5 T 204 945-3078 F 204 948-2420

Coolspring Colony P.O. Box 1015 Minnedosa, Manitoba ROJ 1E0

17-Jul-19

Receipt number2020429LSLocation of operationSW-24-16-17-WRM:Minto-Odanah

### Re: Notice of Conditional Registration for Manure Management Plan (MMP)

Dear Sir or Madam:

Conservation and Water Stewardship has received and reviewed the manure management plan (MMP) for your livestock operation for the next growing season. Any missing information is indicated in the **MMP Submission Report** on the following page. The MMP has been <u>conditionally registered</u> and has been assigned an MMP number, as indicated above.

It is understandable not all information can be provided during the initial MMP submission when filed by the regulated deadline (February  $10^{th}$  or July  $10^{th}$ ). For example, it is likely a recent soil test is not yet available and the associated Section E (Field Application Summary) cannot be completed in full. As a result, the plan is incomplete.

In order to approve fields for manure application, the MMP <u>must</u> be updated to address any deficiencies. An MMP can be updated by filing an amendment prior to manure application. Please note, <u>MMPs will only be</u> fully registered on the condition all missing or incomplete information is submitted prior to manure application. It is a violation of the *Livestock Manure and Mortalities Management Regulation* – M.R. 42/98 to store, handle, or dispose of livestock manure, or apply livestock manure to agricultural land, without a registered MMP.

In addition, spreading confirmations must also be submitted once manure application is complete. Confirmation sheets (attached) must be completed, including shading of the field diagram. It is important to remember, spreading confirmations are required to register your succeeding MMP.

The following pages include important information and we highly recommend taking time to read them as they significantly pertain to the requirements of completing your MMP.

Regards,

Richard Balog Environment Officer

NO CONFERMATION NOTICE FOR Chicken's YET



Environmental Programs and Strategies / Livestock Section 1007 Century Street, Winnipeg, MB R3H 0W4 T 204 945-3078 F 204 948-2420

### **MMP SUBMISSION REPORT**

Date of Receipt: 17-Jul-19

Name of Operation: Coolspring Colony

Receipt number 2020429LS

An "X" indicates missing or incomplete information. Ensure this information is provided in order to register fields for manure application/complete the MMP. Be reminded a registered plan is required to store, handle, or dispose of livestock manure, or to apply livestock manure to agricultural land.

Unapproved Format		Manure information incomplete (Section D of approved form)	
February 10 or July 10 filing deadlines missed		Land application details incomplete (Section E of approved form)	
Soil tests missing	X	Field Application Summary incomplete (Section E of approved form)	X
Operation information incomplete (Section A of approved form)		Signature missing (Section F of approved form)	
Animal units inventory missing (Section B of approved form)		Other See comments below	X
Manure storage information incomplete (Section C of approved form)		No deficiencies noted	

### **COMMENTS/FOLLOW UP**

Soil test reports along with completed field application summary must be submitted prior to manure application.

Date Received:	28-Jun-19
Anticipated Manure Application Date:	01-Sep-19
Location of Operation:	SW-24-16-17-W



NEEPAWA MASC INS. OFFICE Phone: (204) 476-7050 Fax: (204) 476-7094

### 2019 SEEDED ACREAGE REPORT (SAR)

Filing Deadline - June 30, 2019

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#### COOL SPRING COLONY LTD

12 577973 (204) 865-2363 (STN. 12)

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F	age 1	of	6
(please	return	all	pages

Legal Description & Soil Zone	Share	n i t	Year's Declared Acres	Summer- fallow Acres	Acres Too Wet To Seed	Crop and Forage Variety		Seeded Acres	Seed Dat	ling e
NW 99-99-99 W E01	667	2	example 160	50	10	Red Spring Wheat EXAMPLE	AAC Brandon	100	May	20
NW 07-16-16 W D06	XXX	1	150	¢	ø	Feed Bly	Austenson	150	may	17
						0			10	
SW 07 16 16 W D00	~~~~		450	a	4	E I DD				
SW07-16-16 W D06	XXX		150	φ	φ	Feed Bly	Austensor	150	May	17
SE 18-16-16 W C06	ххх	1	198	Ø	ø	Red Spring Whit	AAC Brandon	198	Man	10
						0			100	
					-					
SW 18-16-16 W D06	XXX	1	162	Ø	ø	Red Spring Whit	AAC Brandon	162	May	10
		+							10	
NE 19-16-16 W C06	XXX	1	150	15	6	Red Paris 110t	ACCRI	100	1	0
		1	100	-4-	7	The spring war	ACC Brandon	130	May	7_
						_				
NW 19-16-16 W C06	XXX	1	75	ø	ø	Red Spring Wht	ACC Brandon	75	May	9
		-							10	
		+		4						
SE 19-16-16 W C06	XXX	1	75	P	Ø	Red Spring Whil	ACC Brandor	75 .	may	9
					-+			ain		
Did you seed any fields by plane	or helic	copt	er?	<u>-</u> ,	Yes	No 17 Will you seed any greenfee	ed after filing this report?	Yes	10 P	

Did you seed any forage (hay or seed) this spring or last fall? Yes No

DECLARATION: I/We hereby certify that the information given in this Seeded Acreage Report is a complete and correct statement of: (i) the total 2019 acres, whether insured or not, of each crop seeded, as well as forages, forage seed and summerfallow; (ii) the acreage indicated as "Acres Too Wet To Seed" was available for seeding prior to June 20, 2019 and is normally used for that purpose, but was too wet to seed; and (iii) for pasture, the total number of pastured livestock. I/We understand that this information may be used to calculate an Excess Moisture Insurance claim and that any overpayment arising from such claim will be repayable on demand. I/We acknowledge that in the event the Corporation elects to process my/our claim for indemnity on the basis of this declaration, an appeal of indemnity is not available. I/We further understand that any misrepresentation, misstatement or non-disclosure of required information is contrary to the terms of my/our AgriInsurance AgriInsurance program. The information in this form is collected under the authority of The Manitoba Agricultural Services Corporation Act and will be used to administer linsured is a corporation, promptly notify MASC of any changes in shares, shareholders, directors, officers or agents.

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(204) 476-7050

(204) 476-7094

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12 577973 (204) 865-2363 (STN. 12) EMI: 5%

Page 2 of 6 (please return all pages)

	Legal Description & Soil Zone	Share	n i t	Year's Declared Acres	Summer- fallow Acres	Acres Too Wet To Seed	Crop and Forage	Variety	Seeded Acres	Seed Dat	ling e
	NW 99-99-99 W E01	667	2	example 160	50	10	Red Spring Wheat EXAMPLE	AAC Brandon	100	May	20
	CONTINUED C06	XXX	1								
	NW 30-16-16 W D06	XXX	1	140	Ø	Ø	L.L Canola	L-233P	140	may	18
										19	
	NW 01-16-17 W C06	XXX	1	135	Ø	6	L.L Canola	L-23.3P	135	Mar	15
										in a	
	NE 02-16-17 W B06	XXX	1	160	ø	Ø	L.L Canola	L-233P	160	may	15
										10	
	SE 11-16-17 W B06	XXX	1	150	Ø	ø	L.L. Canola	L-233P	150	may	16
	SW 12-16-17 W B06	XXX	1	155	Ø	Ø	L.L Canola	L-23.3P	155	may	16
-			-							1 part	
	NE 13-16-17 W C06	XXX	1	140	P	Ø	Feed Bly	Austenson	140	May	12
	NW 13-16-17 W C06	xxx	1	140	Ø	ø	Food Blu	Austansk	1110	24	
					,		, un any	/ marensor	1020	May	10/
Di	id you seed any fields by plane	or helic	opte	er?		Yes	No 🔽 , Will you seed any greenfee	ed after filing this report?		10 12	
Di	id you seed any forage (hay or	seed) th	nis s	pring or la	st fall?	Yes	No 🗹				
DE	ECLARATION: I/We hereby certif	fy that th	e int	ormation g	iven in th	is See	ded Acreage Report is a complete and co	ract statement of: (i) the total '	2010 00000	u de esté e e	

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### COOL SPRING COLONY LTD

12 577973 (204) 865-2363 (STN. 12)

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Page 3 of 6 (please return all pages)

Legal Description & Soil Zone	Share	n i t	Year's Declared Acres	Summer- fallow Acres	Acres Too Wet To Seed	Crop and Forage Variety		Seeded Acres	Seec	ding te
NW 99-99-99 W E01	667	2	example 160	50	10	Red Spring Wheat EXAMPLE	AAC Brandon	100	May	20
CONTINUED C06	XXX	1								120
SE 13-16-17 W C06	XXX	1	145	Ø	φ	Feed Bly	Austenson	145	may	12
NE 14-16-17 W B06	xxx	1	160	φ	Ø	Feed Bly	Austensin	160	May	//
NW 14-16-17 W B06	XXX	1	160	Ø	¢	Feed Bly	Austenson	160	May	11
SW 14-16-17 W B06	XXX	1	160	ø	¢	Feed Bly	Austensor	160	May	11
NE 15-16-17 W B06	XXX	1	160	ø	Ø	L.L. Canola	DKLL 81 BL	160	May	14
NW 15-16-17 W B06	xxx	1	160	ø	ø	L.L Canola	DKLL 81 BL	160	May	14
Did you seed any fields by plane	e or helic	copte	er?		Yes	No 🗹 Will you seed any greenfee	ed after filing this report?	945 Yes 🗆 N	lo É	
ECLARATION: I/We hereby cert isured or not, of each crop seede eeding prior to June 20, 2019 a	ify that th d, as wel	le ini l as mall	formation g forages, for v used for t	iven in th rage see	is See	ded Acreage Report is a complete and con summerfallow; (ii) the acreage indicated as	rrect statement of: (i) the total : "Acres Too Wet To Seed" w	2019 acres vas availab	, whether le for	

insured or not, of each crop seeded, as well as forages, forage seed and summerfallow; (ii) the acreage indicated as "Acres Too Wet To Seed" was available for seeding prior to June 20, 2019 and is normally used for that purpose, but was too wet to seed; and (iii) for pasture, the total number of pastured livestock. I/We demand. I/We acknowledge that in the event the Corporation elects to process my/our claim for indemnity on the basis of this declaration, an appeal of indemnity is not available. I/We further understand that any misrepresentation, misstatement or non-disclosure of frequired information is contrary to the terms of my/our Agrilnsurance Agrilnsurance program. The information in this form is collected under the authority of The Manitoba Agricultural Services Corporation Act and will be used to administer Insurance is a corporation, promptly notify MASC of any changes in shares, shareholders, directors, officers or agents.

Mail Office MASC Representative:	Fax	Drop	Box Date R	MBAG	Declared
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NEEPAWA MASC INS. OFFICE (204) 476-7050 (204) 476-7094

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#### COOL SPRING COLONY LTD

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	1	Tu	Previous	)	Acres	1	(p	Pag lease ret	turn all p	6 bage
Legal Description & Soil Zone	Shar	en i t	Year's Declared Acres	fallow Acres	Too Wet To Seed	Crop and Forage	Variety	Seeded Acres	Seed Dat	ling te
NW 99-99-99 W E01	667	2	160	50	10	Red Spring Wheat EXAMPLE	AAC Brandon	100	May	20
NE 16-16-17 W B06	XXX	1	140		Ø	L.L Canola	L-255PC	140	may	18
SE 16-16-17 W B06	xxx	1	145	ø	ø	L.L Canola	L-255PC	145	May	18
NE 17-16-17 W B06	xxx	1	155	Ø	Ø	Red loring wikt	ACC Brandon	155	May	9
NW 17-16-17 W B06	XXX	1	70	Ø	φ	Red Spring ullt	ACC Brandor	70	May	9
SE 17-16-17 W B06	XXX	1	70	φ	φ	Red Sping Wht	ACC Brandon	70	May	9
SE 20-16-17 W B06	xxx	1	100	φ	Ø	Red Spring ull	ACC Brandor	100	May	9
NE 22-16-17 W C06	XXX	1	150	Ø	φ	Red Spring Whit	Acc Brandon	150	May	7
id you seed any fields by plane id you seed any forage (hay or	e or helio seed) t	copte	er? pring or la	st fall?	Yes	No 🗹 Will you seed any greenfee	d after filing this report?	830 Yes 🗆 N	10 19	

DECLARATION: I/We hereby certify that the information given in this Seeded Acreage Report is a complete and correct statement of: (i) the total 2019 acres, whether insured or not, of each crop seeded, as well as forages, forage seed and summerfallow; (ii) the acreage indicated as "Acres Too Wet To Seed" was available for seeding prior to June 20, 2019 and is normally used for that purpose, but was too wet to seed; and (iii) for pasture, the total number of pastured livestock. I/We understand that this information may be used to calculate an Excess Moisture Insurance claim and that any overpayment arising from such claim will be repayable on demand. I/We acknowledge that in the event the Corporation elects to process my/our claim for indemnity on the basis of this declaration, an appeal of indemnity is not available. I/We further understand that any misrepresentation, misstatement or non-disclosure of required information is contrary to the terms of my/our AgriInsurance Contract and may result in serious consequences, including but not limited to, the repayment or forfeiture of indemnities and/or the termination of my/our participation in the Agrilnsurance program. The information in this form is collected under the authority of The Manitoba Agricultural Services Corporation Act and will be used to administer your Agrilnsurance and for research purposes. If you have any questions about the collection of such information, contact your MASC insurance agent. Reminder: If the Insured is a corporation, promptly notify MASC of any changes in shares, shareholders, directors, officers or agents.

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(204) 476-7050

(204) 476-7094

#### COOL SPRING COLONY LTD

12 577973 (204) 865-2363 (STN. 12) EMI: 5%

Page 5 of 6 (please return all pages)

Legal Description & Soil Zone	Share	e n i t	Previous Year's Declared Acres	Summer- fallow Acres	Acres Too Wet To Seed	Crop and Forage	Variety	Seeded Acres	Seec	ling te
NW 99-99-99 W E01	667	2	example 160	50	10	Red Spring Wheat EXAMPLE	AAC Brandon	100	May	20
CONTINUED C06	XXX	1								1-0
SE 22-16-17 W B06	XXX	1	155	Ø	Ø	Red Spring Whl	ACC Brandor	155	may	7
										<u> </u>
SW 22-16-17 W B06	XXX	1	160	Ø	ø	Red Spring Whit	ACC Brandon	160	May	7
NE 02 10 17 W/ 000				4						
NE 23-16-17 W C06	XXX	1	75	0	φ	L&L, Canola	L-255PC	75	may	18
SE 23-16-17 W C06	xxx	1	160	Ø	6	Li L Canola	L= 255 PC	160	may	20
									10	
NW 24-16-17 W C06	XXX	1	80	Φ	Ø	Red Spring Ukl	ACC Brandon	80	May	10
SE 24 16 17 W	VVV		455	4						
<u>3224-10-17 W C06</u>	<u></u>		155	φ	φ	Red Spring Whi	ACC Brandon	155	May	10
SW 24-16-17 W C06	xxx	1	100	Ø	ø	Red Spring Whit A	ACC Brandon	100 .	May	10
			L				L	885	12	
Did you seed any forage (hay or	seed) the	his s	er? spring or la	ist fall?	Yes Yes	No 🗹 Will you seed any greenfee	ed after filing this report?	Yes 🗌 N	lo 🗹	
ECLARATION: I/We hereby certi sured or not, of each crop seeded eeding prior to June 20, 2019 ar	fy that th d, as wel nd is nori	ne in Il as mall	formation g forages, fo y used for t	iven in th rage see hat purpo	nis See d and s ose, bu	ded Acreage Report is a complete and col summerfallow; (ii) the acreage indicated as t was too wet to seed; and (iii) for pasture	rrect statement of: (i) the total : s "Acres Too Wet To Seed" w	2019 acres vas availab	, whether le for	

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Mail Office MASC Representative:	Fax	Drop	Box Date Re	MBAG eceived:	Declared
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NEEPAWA MASC INS. OFFICE (204) 476-7050 (204) 476-7094

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Legal Description & Soil Zone	Share	en i t	Year's Declared Acres	Summer- fallow Acres	Too Wet To Seed	Crop and Forage	Variety	Seeded Acres	Seec	ling te
NW 99-99-99 W E01	667	2	example 160	50	10	Red Spring Wheat EXAMPLE	AAC Brandon	100	May	120
CONTINUED C06	XXX	1								
SE 25-16-17 W C06	XXX	1	160	Ø	φ	L-L. Canola	L-233P	160	may	ac
NE 32-16-17 W C06	xxx	1	110	ø	ø	Red Spring Wht	ACC Brandon	110	May	8
NW 32-16-17 W C06	xxx	1	140	Ø	ø	Red Spring Whit	All Brandon	140	May	8
SE 32-16-17 W C06	xxx	1	120	φ	ø	Red Spring Wht	ACC Brandon	120	May	8
SW 32-16-17 W C06	XXX	1	150	Φ	φ	Red Spring ulfl	ACC Brandon	150	may	Y
								1.01		

DECLARATION: I/We hereby certify that the information given in this Seeded Acreage Report is a complete and correct statement of: (i) the total 2019 acres, whether insured or not, of each crop seeded, as well as forages, forage seed and summerfallow; (ii) the acreage indicated as "Acres Too Wet To Seed" was available for seeding prior to June 20, 2019 and is normally used for that purpose, but was too wet to seed; and (iii) for pasture, the total number of pastured livestock. I/We understand that this information may be used to calculate an Excess Moisture Insurance claim and that any overpayment arising from such claim will be repayable on demand. I/We acknowledge that in the event the Corporation elects to process my/our claim for indemnity on the basis of this declaration, an appeal of indemnity is not available. I/We further understand that any misrepresentation, misstatement or non-disclosure of required information is contrary to the terms of my/our AgriInsurance Contract and may result in serious consequences, including but not limited to, the repayment or forfeiture of indemnities and/or the termination of my/our participation in the Agrilnsurance program. The information in this form is collected under the authority of The Manitoba Agricultural Services Corporation Act and will be used to administer your Agrilnsurance and for research purposes. If you have any questions about the collection of such information, contact your MASC insurance agent. Reminder: If the Insured is a corporation, promptly notify MASC of any changes in shares, shareholders, directors, officers or agents.

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#### LIVESTOCK MANURE AND MORTALITIES MANAGEMENT REGULATION

### Manure Management Plan

Manitoba	5
Sustainable Developr	nent

Section A – Operation Information

Name of Operation	COOL SPRING COLONY	1
Legal Name of Operation (if different)		
Affiliate (legal name)		Not Applicable
Mailing Address	BOX 1015	
	MINNEDOSA, MB	Postal Code R0J 1E0
Location of Operation	SW 24-16-17 W	MINTO
	Qtr. Sec. Twp. Rge. E/WPM or River Lot	/Parish Rural Municipality
Civic Address		
Date Operation Established	JUNE 1, 1986	***
Date Last Expanded (if applicable)		
Name of Contact Person	JOSH WALDNER	
Contact Numbers	204-867-7243	204-865-2363 204-865-2215
	Business Residence	Cellular Facsimile
Email		
Owner (legal name)	COOL SPRING COLONY	/
Mailing Address	BOX 1015	
	MINNEDOSA, MB	Postal Code R0J 1E0
Contact Numbers		
	Business Residence	Cellular Facsimile
Email		
Preferred Correspondence	🖌 Email 🗌 Fax 🗌 Mail	
Submit completed plan to:		For Department Use Only
By mail: Environmental Approvals B Manitoba Sustainable Deve 160-123 Main Street (Box 8	ranch,. Iopment, 0), Winnipeg MB_R3C 1A5	
By fax: 204-948-2420		
By email: mmpregistration@gov.mb.	ca	

Proprietary (confidential) information will be protected in accordance with Manitoba law. Personal information is collected under the authority of *The Environment Act*, the Livestock Manure and Mortalities Management Regulation, and will be used to issue receipts, for surveys, administration and enforcement purposes. Information collected is protected by the privacy provisions of *The Freedom of Information and Protection of Privacy Act*.

Livestock Species and Type <sup>1</sup>	A.U. Produced by One Livestock		Number of Livestock of Each Type	A.U. for Each Livestock Type
Eg. Beef – Feedlot Cattle	.769	Х	500	385
Broilers	.0050	Х	60000	300
		Х		0
		Х		0
		Х		0
		Х		0
		Х		0

### Section B - Animal Unit Inventory

Refer to <u>Animal Unit Worksheet –Schedule A</u> and retain for your records. If additional room is required, the operator may choose to submit a copy of Schedule A. **USE ONLY CATEGORIES LISTED IN THE WORKSHEET**. For a copy of Schedule A, refer to the livestock program website at: www.gov.mb.ca/conservation/envprograms/livestock

### Section C – Manure Storage Systems Information<sup>1</sup>

Form of livestock manure stored		<ul> <li>☐ Liquid manure (pumped as liquid; 0-5% dry matter)</li> <li>☐ Semi-solid (paste like; 5-25% dry matter)</li> <li>☑ Solid (handled with loader; over 25% dry matter)</li> </ul>					
Location of central manure storag	e facilities	6					
Legal description of the location(s):	G.P.S. Co (Decimal (if ava	oordinates Degrees) ilable)	Anticipated Storage Time (months)	Construction Permit Number(s) <sup>2</sup> or Registration Number(s) <sup>3</sup> for Storage			
				2			
Location of solid manure field stor	age (com	plete only if	you have field s	torage)			
Field Storage Site #1 :							
Legal Location: <u>17-16-7</u>		Anticipated Storage Duration (months) 22					
Field Storage Site #2 :							
Legal Location: <u>36-16-16</u>		Anticipated Storage Duration (months) 22					
Field Storage Site #3 :							
Legal Location:	Anticipated Storage Duration (months)						

<sup>&</sup>lt;sup>1</sup> Use additional pages as necessary

<sup>&</sup>lt;sup>2</sup> A construction permit has been required by Manitoba Sustainable Development for construction of earthen manure

storage structures since 1994 and for all other types of constructed manure storage structures since 1998. You may inquire about your permit number at your Manitoba Sustainable Development regional office (see last page). Registration numbers will be issued by Manitoba Sustainable Development for earthen manure storage structures built

before 1994 and all other constructed storage structures built prior to 1998.

### Section D – Manure Information for Land Application

Total Volume of Manure to be Land Applied	
Liquid manure:       Imp. gals.         Semi-solid manure:       Imp. gals.         2000       Imp. gals.         Imp. gals.       Cubic feet         Imp. gals.       Cubic feet	
Manura Analyzia #4 Livestack Spacias & Type: Chickes's (Brailer) 300 A U	
Name and the Analysis # 1 - Livestock Species & Type.Total Nitrogen $32.9$ Ibs/1000 lmp. gals.Ibs/tonNH4Ibs/1000 lmp. gals.Ibs/tonIbs/tonTotal P18.3P2O5 (P x 2.3)Ibs/1000 lmp. gals.% Dry Matter898.6Ibs/tonIbs/1000 lmp. gals.	✓ Ibs/ton
The nutrient values stated above are: Actual. (Attach laboratory analysis report) Estimated. (Indicate source of information)	
Manure Analysis #2 – Livestock Species & Type:         Total Nitrogen       Ibs/1000 Imp. gals.         NH4       Ibs/1000 Imp. gals.         Total P       Ibs/1000 Imp. gals.         % Dry Matter       P205 (P × 2.3)	lbs/ton
The nutrient values stated above are: Actual. (Attach laboratory analysis report) Estimated. (Indicate source of information)	
Manure Analysis #3 – Livestock Species & Type:         Total Nitrogen       Ibs/1000 Imp. gals.         NH4       Ibs/1000 Imp. gals.         Total P       Ibs/1000 Imp. gals.         % Dry Matter       P2O5 (P x 2.3)	🔲 lbs/ton
The nutrient values stated above are: Actual. (Attach laboratory analysis report) Estimated. (Indicate source of information)	
Earliest anticipated manure application starting date <sup>1</sup> : <u>9/1/2017</u> (Month / Day / Year)	
<sup>1</sup> This is the earliest date the first spread of manure will occur on this plan (plan year begins August 15 <sup>th</sup> and ends Augus 14 <sup>th</sup> of the following year).	t
NOTE: At least one measure extrinst anothing to an etimate is required for each measure form any livestable encoded	

<sup>&</sup>lt;u>NOTE</u>: At least one manure nutrient analysis or estimate is required for each manure form per livestock species. If manure is to be treated, please complete and attach <u>Schedule B – Manure Treatment</u> If manure is to be transferred to another party, please complete and attach Schedule <u>C – Transfer of Manure or Effluent to a</u> <u>Second Party</u>. For copies of Schedules B and C refer to the livestock program website at: <u>www.gov.mb.ca/conservation/envprograms/livestock</u>

### Section E - Field Application Summary

(Use additional pages as necessary)

ALL information below must be completed for each field listed BEFORE any manure spreading occurs.

De la construcción de la				Name of Street of St	
Legal Land Description	NW 30-16-16	SE 25-16-17	SE 26-16-17	17-16-17	
Field ID (optional)					
Logal Owner's Name and Phone	COOL SPRING COLONY	COOL SPRING COLONY	COOL SPRING COLONY	COOL SPRING COLONY	
Legal Owner's Name and Phone					
Land: Own, Lease, or Agreement	Own	Own	Own	Own	
Field Size <sup>1</sup> (acres)	160	160	160	400	
Soil Class and Subclass <sup>2</sup>	2t(8)2tw(10)5w(1)	2t(8)2tw(10)5w(1)	2t(8)2tw(10)5w(1)	2t(8)2tw(10)5w(1)	
Proposed Crop	canola	canola	canola	canola	
Is the Proposed Crop Grazed?	No	No	No	No	
0 – 6 inch (15 cm) depth soil phosphorus (P) in ppm <sup>3</sup>	22ppm				
0 – 24 inch (60 cm) depth soil nitrate (NO <sub>3</sub> -N) in Ibs/acre <sup>3</sup>	42lbs				
Target Yield (bus/acre, Ibs/acre, tons/acre)	55	50	50	50	
Crop Nitrogen Recommendation <sup>4</sup> (Ibs N/acre)	150	155	155	155	
Crop Removal of Phosphate <sup>5</sup> (lbs P₂O₅/acre)	40	40	40	40	
Manure Application Rate (Imp. gal/acre or tons/acre) * if using multi-year P <sub>2</sub> O <sub>5</sub> rate, select	4.5 ton				
the # equal to multiple of years 6	2				
Manure Analysis #1, #2, or #3 (from Section D)	1	1	1	1	
Application Start Date (month / day / year)	6/1/2017	6/1/2017	6/1/2017	6/1/2017	
Application Method - Select the corresponding letter <sup>7</sup>	С	С	С	С	
Non manure Nitrogen Fertilizer (Ibs N/acre)	0	0	0	0	
Non manure Phosphate Fertilizer (Ibs P₂O₅/acre)	0	0	0	0	
Manure Applicator – Name, Phone, Licence # <sup>8</sup>					

<sup>1</sup> Indicate only the available acres for manure spreading (exclusive of setbacks from surface water courses, etc.).

<sup>2</sup> Must list correct Agricultural Capability Class and Subclass as determined by Published Manitoba Soil Survey Report or electronic data distributed by Manitoba Land Initiative website. <u>Use the worst class manure will be spread on.</u>

<sup>3</sup> As shown on the soil analysis report appended to this form. If soil analysis reports are not available at the time of submitting the form, they <u>must</u> be forwarded to Manitoba Sustainable Development 14 days **before** app<u>lication</u> of manure to allow for processing.

Indicate the recommended nitrogen (N) application rate suggested by the soil fertility guide or soil analysis report, whichever is lower.

<sup>5</sup> Indicate the crop removal rate of phosphate (P<sub>2</sub>O<sub>5</sub>) as determined by the most appropriate source of information.

<sup>6</sup> When soil test phosphorus levels are 60 ppm to 179 ppm manure may be applied at a rate of up to 5 times the annual crop removal rate of P<sub>2</sub>O<sub>5</sub>. <u>Schedule D</u> must be completed when using a multi-year option.

<sup>7</sup> Choose one of the following and put the corresponding letter on the form: A. Broadcast and incorporate after 2 days, B. Broadcast + Incorporate after 3 days. C. Broadcast and incorporate within 2 days. D. Broadcast and no incorporation. E. Broadcast and no incorporation on forages. F. Injection. G. Irrigation and incorporation within 3 days. H. Irrigation and no incorporation.
 <sup>8</sup> As of January 1, 2008 Commercial and Off-farm Manure Applicators must be trained and Licenced with Manitoba Agriculture.

Manure Management Plan Rev. May, 2016

	SOIL TEST REPORT	) N				
Soil Analysis by Agvise Laboratories (http://www.agvise.com) Northwood: (701) 587-6010	FIELD ID 4 SAMPLE ID NW 30-16-16 FIELD NAME COUNTY 16 TWP 16 RANGE SECTION 30 QTR NW ACRES 0 PREV. CROP Canola-bu	W				
Benson: (320) 843-4109						
SUBMITTED FOR: COOL SPRING COLONY	SUBMITTED BY: RE3021 REDFERN FARM-CARBERRY 629 4TH STREET BOX 930 CARBERRY, MB BOK 0H0	S REF # 19427701 BOX # 0 LAB # NW84929				

Date Sampled 09/12/2017

Date Received 09/26/2017

Date Reported 9/28/2017

Nut	trient 1	In The Soil	Ir	nterpr	etatio	on	1	st Cr	op Choic	e	2nd Ci	op Choice	2		3rd C	rop Cho	bice
			VL.ow	Low	Med	High		Ca	nola-bu								
	0-6"	24 lb/ac						YIE	LD GOAL		YIE	LD GOAL			YI	LD GOAL	
	0-24	18 10/80						5	5 BU								
	0-24"	42 lb/ac					SUC	GESTE	D GUIDELIN	ES	SUGGEST	ED GUIDELINE	s	S	UGGEST	ED GUIDE	LINES
Nitrate									Band								
							LB/	ACRE	APPLICA	TION	LB/ACRE	APPLICAT	ION	L	B/ACRE	APPL	ICATION
61 J	Olsen	22 ppm					N	151			N			N			
Potassium		190 ppm					P2O5	10	Ban (Starte	d r)*	P2O5			P;C	5		
Chloride	0-24''	20 lb/ac					к,0	0	-		K <sub>2</sub> O			K,C	>		
	0-6'' 6-24''	24 lb/ac 54 lb/ac	******				CI		Not Avai	ilable	CI			CI			
Boron							S	15	Band		S			S			
Zinc		2.60 ppm					В	1	Broadca	ast	в			В			
Iron		121.0 ppm					Zn	0			Zn			Zn			
Manganese		22.2 ppm					Fe	0			Fe			Fe			
opper		1.84 ppm					Mn	0			Mn			Mn			
Magnesium		387 ppm					Cu	0			Cu			Cu			
Calcium		2441 ppm					Mg	0			Mg			Mg			
Sodium		29 ppm					Lime	0	1		Lime			Lime	6		
Org. Matter		4.1 %		*****				1		Cati	ion Exchange	% Bas	e Sati	urat	ion (Ty	pical Ra	nge)
Carbonate(CCE	E)	0.6 %	••••				Soil p	H	Buffer pH		Capacity	% Ca	% N	1g	% K	% Na	% H
ool. Saits	0-6" 6-24"	0.29 mmho/cm 0.22 mmho/cm	•••••				0-6" <b>6</b> 6-24 <b>6</b>	.1			16.0 meq	(65-75) <b>76.1</b>	(15·2 20,	0) 1	(1·7) 3.0	(0·5) 0.8	(0-5)

General Comments: Coarse Loams (CEC range = 11 to 20) (Medium)

crop 1: \*\* Chloride yield data is limited for this crop. \* Caution: Seed Placed Fertilizer Can Cause Injury \* Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2OS = 50 K2O = 25 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

### Section F -Certification of Manure Management Plan

This plan must be certified by the person who prepares it. Select the appropriate box.

Plan prepared by:	
Operator	
I hereby certify the information contained in this with the Livestock Manure and Mortalities Mana Environment Act.	s plan is true and believe this plan complies gement Regulation (M.R. 42/98) of The
	Date:
Signature of the operator	
✓ Other <sup>1</sup>	
I hereby certify the information contained in this with the Livestock Manure and Mortalities Mana Environment Act. I meet the requirements to prepare manure man 13(7) of M.R. 42/98.	s plan is true and believe this plan complies gement Regulation (M.R. 42/98) of The agement plans in accordance with Section
BLAINE SANGSTER	
Name of person preparing the plan on behalf of the	operator
Address: 629 4TH AVE.	
CARBERRY, MB R0K 0H0	
Contact number: 204-570-0319	
MIA # <sup>2</sup> /CCA #: 26200	
Blaine Sangster Dr. Conflame Surgitar of Editor Fram Services. Co. DR. Conflame Surgitar of Editor Fram Services. Co. emailsbacksol defor	Date: June 16/17
Signature Silve Serverto	
<sup>1</sup> Must meet the requirements to prepare manure management plans a <sup>2</sup> If exempt from registration with MIA for the purposes of preparing ma	as per Section 13(7) of M.R. 42/98. anure management plans, enter 0000.

Certain livestock operations in Manitoba are required under Section 13(1) of the Livestock Manure and Mortalities Management Regulation (M.R. 42/98) of *The Environment Act*, to submit an annual manure management plan to Manitoba Sustainable Development. The plan must be submitted by **July 10** for fertilization programs beginning in the fall, or by **February 10** for fertilization programs beginning in the spring. Late submissions are subjected to \$100 (+ 5% GST) administration fee.

Note: Confirmation of manure spreading including legal land description, actual application rates, analysis of manure, field maps, manure applicator licence # (if applicable), must be submitted after manure is spread. Additional plans will not be registered unless this information is received by Manitoba Sustainable Development.

Forms and other relevant information can be accessed online at http://www.gov.mb.ca/conservation/envprograms/livestock

### REPORTING FORM MONITORING WELL SAMPLING

Note: This form should be used to report manure storage facility monitoring well results. If you are reporting source water results, please refer to Information Bulletin 2004-01E.

Facility Reference Number (permit or	registration #):	4291-LS						
Name of Operation:	Coolspring colony							
Mailing Address:	box 1015							
	minnedosa m.b. Postal Code ROJ-1EO							
Location of Operation: SW 24-16-17								
Rural Municipality:	Qtr Sec Twp Rge E/WPM or River Lot/Parish							
Name of Contact:	Josh Waldner							
Contact Numbers:	204 867-7243			-				
	Business	Residence	Cellular	Facsimile				
Sampling Date:	dec 14 2017							

Well #	Water Depth To Top Of Well Casing (inches)	Ground Surface To Top Of Well Casing (inches)	Depth Of Water Level To Ground Surface (inches)

### **REMEMBER TO ATTACH ANALYTICAL RESULTS!**

Please submit form and analytical results to: Technical Review Officer, Manitoba Conservation and Water Stewardship, 1007 Century Street, Winnipeg, MB R3H 0W4 Fax (204) 948-2420, SourceWater@gov.mb.ca

Proprietary (confidential) information will be protected in accordance with Manitoba law. Personal information is collected under the authority of *The Environment Act*, the *Livestock Manure and Mortalities Management Regulation*, and will be used for administration and enforcement purposes. Information collected is protected by the privacy provisions of *The Freedom of Information and Protection of Privacy Act*. If you have any questions, contact the Access & Privacy Coordinator, Box 85, 200 Saulteaux Crescent, Winnipeg MB R3J 3W3; 1-204-945-4170.

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Page 4 of 4

BLAINE SANGSTER 204-834-3356

12 - 13         Winnip         Tel: (20         Fax: (2         Toll Free         FOR LABORATOR         Sample Condition         Frozen         Cold         COMMENT:	29 Niakwa Rd. E. eg, Manitoba R2J 3T4 94) 255-97 04) 255-97 ee: 1 800 6 <b>RY USE</b> L2035531-COFC Upon R¢ Ambient Broken Leakage Inco	Chain of Custody / Analytical Request Form CHEMISTRY INFO: (204) 255 9739 MICRO INFO: (204) 255 9740 OR (204) 255 9737 WORK ORDER NO: LAB NO.:Q 0 3553 IABLE DATE RECEIVED: IABLE DATE RECEIVED: DATE RECEIVED:
Date Sampled: 14 DE	2/ 17 TIMO: 10 : 00 AM 57 PM 5	
Could Could Cou	abor Caland	Submitter's Name Printed (001 SPP.) NG (01.0 NV
Location:	iny colorig	Sample Submitted By RLAINE SANG SER
Community Code Number	ب سر :	Rural Municipality/LGC/UVD: RM Minto-Odanah
SAMPLE TYPE DRINKING WATER Untreated Well Treated Well Treated Municipal Non-Treated Municipal Water-Surface-Raw Water-Surface-Treated PURPOSE OF TEST Private Real Estal	PLEASE PRIN NON-DRINKING WATER Sewage/Waste Water Lake/River Swimming Pool Whirl Pool Other	IT & PRESS FIRMLY NOTES & CONDITIONS         1. Quote number must be provided to insure proper pricing.         2. Failure to properly complete all portions of this form may delay analysis.         3. ALS's liability limited to cost of analysis.         SERVICE REQUESTED         REGULAR       PRIORITY         (50% SURCHARGE)       (100% SURCHARGE)
LAB NUMBER	SAMPLE IDENTIFICATION	ALS CUSTOMER #: QUOTE #:
		REPORT TO BE SENT TO         NAME: BLA INC SAN/ESTEP         COMPANY: REDFERN FARM SERVICES         ADDRESS: BOX 930         CITY/TOWN: CARBERRY FARM SERVICES         ADDRESS: BOX 930         CITY/TOWN: CARBERRY FARM SERVICES         POSTAL CODE: ROK 0140         PHONE: 204 834-3356         BY: MAIL I FAX IN 204-834-3558         PICKUP E-MAIL IS BACING FE TO FE
Analyses required F	OK MANURE	BILLING ADDRESS SAME AS REPORT TO 🖉
LWA7	MANAGEMENT	NAME:
SAMPLING INST Manitoba T Part of the AL 12 - 1329 Niakwa F Phone: +1 204 255 9720 A Campu	RUCTIONS ON REVERSE SIDE <b>Schnology Centre Ltd.</b> <b>S Laboratory Group</b> Rd. E., Winnipeg, MB Canada R2J 3T4 Fax: +1 204 255 9721 www.alsglobal.com bell Brothers Limited Company	PAYMENT PARTICULARS  INVOICE NEEDED / CLIENT'S P.O. NO. CARBERRY  INTERAC CHEQUE Subtotal \$ VISA / MASTERCARD G.S.T. Total
SU	BMITTER COPY	* OUR POLICY IS NOT TO ACCEPT SAMPLES FROM THE PRIVATE CITIZEN WITHOUT PREPAYMENT

ENTERED IN LIMS BY:



Redfern Farm Services - Carberry ATTN: BLAINE SANGSTER PO Box 930 Carberry MB ROK OHO

Date Received: 14-DEC-17 Report Date: 19-DEC-17 11:23 (MT) Version: FINAL

Client Phone: 204-834-3356

# Certificate of Analysis

Lab Work Order #: L2035531 Project P.O. #: NOT SUBMITTED Job Reference: C of C Numbers: Legal Site Desc: RM MINTO ODANAH

Hua Wo Chemistry Laboratory Manager [This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 1329 Niakwa Road East, Unit 12, Winnipeg, MB R2J 3T4 Canada | Phone: +1 204 255 9720 | Fax: +1 204 255 9721 ALS CANADA LTD Part of the ALS Group An ALS Limited Company

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L2035531 CONTD.... PAGE 2 of 3 Version: FINAL

### ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	* D.L.	Units	Extracted	Analyzed	Batch
L2035531-1 COOL SPRING							
Sampled By: BS on 14-DEC-17 @ 10:00							
Matrix: WATER							
Manure Monitoring Well							
Ammonia by colour	2.00		0.40				
Chloride in Water by IC	2.28		0.10	mg/L		16-DEC-17	R3915830
Chloride (Cl)	3.1		1.0	mg/L		15-DEC-17	R3915716
Conductivity	1240		1.0	umhos/cm		15-DEC-17	R3914970
Nitrate in Water by IC		DIM					
Nitrate+Nitrite	<0.040	DLM	0.040	mg/L		15-DEC-17	R3915716
Nitrate and Nitrite as N	<0.070		0.070	mg/L		19-DEC-17	
Nitrite in water by IC Nitrite (as N)	<0.020	DLM	0.020	mg/L		15-DEC-17	R3915716
				-			

\* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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W.

### **Reference Information**

#### Sample Parameter Qualifier Key:

×.

Q.

Qualifier	Description								
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).								
est Method I	References:								
ALS Test Code	e Matrix	Test Description	Method Reference**						
CL-IC-N-WP	Water	Chloride in Water by IC	EPA 300.1 (mod)						
Inorganic anion	ns are analyzed by Ion (	Chromatography with conductivity an	d/or UV detection.						
EC-WP	Water	Conductivity	APHA 2510B						
Conductivity of and chemically	an aqueous solution re inert electrodes.	fers to its ability to carry an electric o	surrent. Conductance of a solution is measured between two spatially fixed						
NH3-COL-WP	Water	Ammonia by colour	APHA 4500 NH3 F						
Ammonia in wa nitroprusside ar	ater samples forms indo nd measured colourme	phenol when reacted with hypochlori trically.	te and phenol. The intensity is amplified by the addition of sodium						
NO2+NO3-CAL	.C-WP Water	Nitrate+Nitrite	CALCULATION						
IO2-IC-N-WP	Water	Nitrite in Water by IC	EPA 300.1 (mod)						
norganic anion	is are analyzed by Ion (	Chromatography with conductivity and	d/or UV detection.						
O3-IC-N-WP	Water	Nitrate in Water by IC	EPA 300.1 (mod)						
norganic anion	s are analyzed by lon (	Chromatography with conductivity and	d/or UV detection.						

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA

#### Chain of Custody Numbers:

#### **GLOSSARY OF REPORT TERMS**

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory. UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION. Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



8

# Quality Control Report

	Worko	rder: L2035531	Report Date: 19-	DEC-17	Page	e 1 of 2
Client: Redfern PO Box Carberry	Farm Services - Carberry 930 MB R0K 0H0 SANGSTER					
Test	Matrix Poforon	co Posult Ou	alifiar Unita	PPD	1 1	Analanad
	Matrix Referen		anner Units	RPD		Analyzed
CL-IC-N-WP	Water					
Batch R3915716 WG2685039-2 LCS Chloride (CI)		100 7	0/.		00.110	15 050 17
WG2685039-1 MB Chloride (Cl)		<0.50	mg/L	20	0.5	15-DEC-17
FC-WP	Water					IO BEO II
Batch R3914970	Water					
WG2686091-8 LCS Conductivity		99.6	%		90-110	15-DEC-17
WG2686091-6 MB Conductivity		<1.0	umhos/cm		1	15-DEC-17
NH3-COL-WP	Water					
Batch R3915830						
WG2685831-6 LCS Ammonia, Total (as N)		99.0	%	1	85-115	16-DEC-17
WG2685831-5 MB Ammonia, Total (as N)		<0.010	mg/L		0.01	16-DEC-17
NO2-IC-N-WP	Water					
Batch R3915716 WG2685039-2 LCS						
Nitrite (as N)		101.1	%	ç	90-110	15-DEC-17
WG2685039-1 MB Nitrite (as N)		<0.010	mg/L	(	0.01	15-DEC-17
NO3-IC-N-WP	Water					
Batch R3915716 WG2685039-2 LCS Nitrate (as N)		101 1	%	,	00.110	
WG2685039-1 MB Nitrate (as N)		<0.020	mg/L	(	0.02	15-DEC-17

### **Quality Control Report**

Workorder: L2035531

Report Date: 19-DEC-17

Legend:

1

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

#### Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CHICKEN

# Spreading Confirmation Sheet

- Spreading Confirmation Sheet must be submitted AFTER spreading to confirm manure application details. • ÷
- Subsequent plan will not be registered unless Spreading Confirmation Sheets for all applied fields are received.



\* To convert US gallons to Imperial gallons, multiply US gal by 0.83 (i.e. Imp gal = US gal X 0.83) \*\* To convert manure phosphorus (P) to phosphate (P<sub>2</sub>O<sub>5</sub>), multiply P by 2.3 (i.e.  $P_2O_5 = P \times 2.3$ )

If manure was not applied to any fields, state the reason in the space provided below:

Signature

Date

				$\left( \right)$	S	DIL T	EST	REPO	RT				N			-
FIELD ID SAMPLE ID SAMPLE ID FIELD NAME COUNTY TWP Soil Analysis by Agvise Laboratories (http://www.agvise.com) Northwood: (701) 587-6010 Benson: (320) 843-4109						4 NW 3 16 16 30 Canol	0-16 ( a-bu	-16 RANGE QTR NW	ACRES O		W					
COOL SPRING	SUBMITTED FOR: SUBMITTE COOL SPRING COLONY REDFERN FARM-CARBE 629 4TH STREET BOX 930 CARBEERDY, MR						ED BY: ERRY R0K	RE3021 0H0	REF	# 19 # N	9427 W849	S 701 929	BOX #	0		
Date Sampled	09/12/2017						Date	Received	09/26/2	017		[	Date F	Report	ed <b>6/1</b>	1/201
Nutrient	In The Soil	I	nterp	retati	ion	1	st Cr	op Choic	e	2nd Cro	op Choice	e	3	Brd C	rop Cho	pice
0-6' 6-24'	" 24 lb/ac " 18 lb/ac	VLow	Low	Med	High		Ca YIE	LD GOAL		YIELI	D GOAL			YIE	ELD GOAL	
0-24' Nitrate	' 42 lb/ac					SUGGESTED GUIDELINES SUG Broadcast			SUGGESTE	GGESTED GUIDELINES SUGGE				GESTED GUIDELINES		
Olser	1 22 ppm	*****	*****	*****	*****	LB/	ACRE 151	APPLICA		_B/ACRE	APPLICAT	ION	LE	ACRE	APPL	ICATION
Potassium	190 ppm	*****	*****	*****	*****	P <sub>2</sub> O <sub>5</sub>	0		P <sub>2</sub> (	D <sub>5</sub>		_	P2O5			
0-24" Chloride 0-6" 6-24"	20 lb/ac 24 lb/ac 54 lb/ac	*****	**	****	*****	CI		Not Avai	lable C				CI			
Sulfur Boron	0.5 ppm	*****	*			S B	20 1	Broadca	ast S ast B				S B			
Zinc	2.60 ppm 121.0 ppm	*****	*****	*****	*****	Zn	0		Zr				Zn			
Manganese Copper	22.2 ppm 1.84 ppm	*****	******	*****	*****	Fe Mn	0		Fe Mr				Fe Mn		_	
Magnesium Calcium	387 ppm 2441 ppm	*****	*****	*****	*****	Cu Mg	0	2	Cu				Cu Ma	-		
Sodium Drg.Matter	29 ppm 4.1 %	****	*****	****		Lime	0		Lim	e			Lime			
Carbonate(CCE) 0-6" 6-24"	0.29 mmho/cm 0.22 mmho/cm	****	*			Soil p	.1	Buffer pH	Cation E Capa 16.0	xchange icity meq	% Bas % Ca (65-75)	e Sat	Mg 20)	<b>% K</b>	<b>% Na</b>	nge) % H (0-5)

General Comments: Coarse Loams (CEC range = 11 to 20) (Medium)

Crop 1: \*\* Chloride yield data is limited for this crop. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 25 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

	SOIL TEST REPORT	) N
FARM SERVICES	FIELD ID <b>15</b> SAMPLE ID <b>S1/2 18-16-16</b> FIELD NAME COUNTY <b>16</b>	
Soil Analysis by Agvise Laboratories (http://www.agvise.com) Northwood: (701) 587-6010 Benson: (320) 843-4109	TWP16RANGESECTION18QTR S1/2ACRES 0PREV. CROP Wheat-Spring	E
SUBMITTED FOR: COOL SPRING COLONY	SUBMITTED BY: RE3021 REDFERN FARM-CARBERRY 629 4TH STREET	S
	BOX 930 CARBERRY, MB ROK OHO	REF # 19427702 BOX # 0 LAB # NW84934
Date Sampled 09/12/2017	Date Received 09/26/201	7 Date Reported 6/11/2018

Nuti	rient I	n The Soil	Interpretation				1st Crop Choice			2nd Crop Choice				3rd Crop Choice				
			VLow	Low	Med	High		Car	nola-bu									
	0-6" 6-24"	14 lb/ac	14 lb/ac				YIEL	D GOAL			YIELD	GOAL			YI	ELD GOAL		
		0 10/10	****			8		55	BU									
	0-24''	20 lb/ac					SUG	GESTE	D GUIDELIN	IES	SUGGE	STED	GUIDELINE	S	SU	IGGEST	ED GUIDE	LINES
Nitrate								E	Band									
							LB//	ACRE	APPLICA	TION	LB/ACF	ε	APPLICAT	ION	LB	/ACRE	APPL	ICATION
Phosphorus	Olsen	31 ppm	*****	*****	*****	*****	N	173			N				Ν			
Potassium		203 ppm	*****	*****	*****	*****	P <sub>2</sub> O <sub>5</sub>	10	Ban (Starte	d r)*	P <sub>2</sub> O <sub>5</sub>				P <sub>2</sub> O <sub>5</sub>			
Chloride	0-24''	20 lb/ac	*****	**			K <sub>2</sub> O	0			K <sub>2</sub> O				K <sub>2</sub> O			
Sulfur	0-6" 6-24"	18 lb/ac 30 lb/ac	***** *****	******	*****		CI		Not Ava	ilable	CI				CI			
Boron		0.6 ppm	*****	**			S	15	Band	1	S				S			
Zinc		3.02 ppm	*****	*****	*****	*****	В	1	Broadc	ast	В				В			
Iron		91.8 ppm	*****	*****	*****	*****	Zn	0			Zn				Zn			
Manganese		13.3 ppm	*****	*****	*****	*****	Fe	0			Fe				Fe			
Copper		1.66 ppm	*****	*****	*****	*	Mn	0			Mn				Mn			
Magnesium		329 ppm	*****	*****	*****	***	Cu	0			Cu				Cu			
Calcium		2334 ppm	*****	*****	*****	*****	Mg	0			Mg				Mg			
Sodium		33 ppm	****				Lime	0			Lime				Lime			
Org.Matter		4.0 %	*****	*****	****			Т	1							1		
Carbonate(CCE)		0.1 %	*				Soil p	нв	uffer pH	Cati	on Exchan	ge	% Bas	e Satu	iratio		pical Ra	nge)
Sol. Salts	0-6" 6-24"	0.3 mmho/cm 0.38 mmho/cm	******	*			0-6" <b>6</b> 6-24" <b>7</b>	0			15.1 meq		(65-75) 77.4	(15-2) 18.	D) 2	(1-7) 3.5	(0-5)	(0-5)

General Comments: Coarse Loams (CEC range = 11 to 20) (Medium)

Crop 1: \*\* Chloride yield data is limited for this crop. \* Caution: Seed Placed Fertilizer Can Cause Injury \* Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 50 K20 = 25 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

	SOIL TEST REPORT	N
FARM SERVICES	FIELD ID 10 SAMPLE ID 19-16-16 FIELD NAME COUNTY 16	
Soil Analysis by Agvise Laboratories (http://www.agvise.com) Northwood: (701) 587-6010 Benson: (320) 843-4109	TWP 16 RANGE SECTION 19 QTR ACRES 0 PREV. CROP Barley	E
SUBMITTED FOR: COOL SPRING COLONY	SUBMITTED BY: RE3021 REDFERN FARM-CARBERRY 629 4TH STREET	S
	BOX 930 CARBERRY, MB ROK OHO	REF # 19427717 BOX # 0 LAB # NW89881
Date Sampled 09/28/2017	Date Received 09/30/20	17 Date Reported 6/11/201

Nutrient In The Soil		In	Interpretation				1st Crop Choice				2nd Crop Choice					3rd Cron Choice					
	1	VIow	Low	Mod	High							p enoie		-	Siuc	rop ch	Jice				
0.01		VLOW	LOW	Med	High		Can	iola-bu													
6-24	4 lb/ac						YIEL	D GOAL			YIELD	GOAL		YIELD GOAL							
		* * *					60	BU													
0-24'	16 lb/ac					SUG	GESTED	O GUIDELIN	IES	SUG	GESTED	GUIDELINE	ES	SUGGESTED GUIDELINES							
Nitrate							В	and													
						LB/A	ACRE	APPLICA	TION	LB/A	CRE	APPLICAT	ION	LI	3/ACRE	APPL	ICATION				
Olsen	20 ppm	*****	*****	*****	*****	N	194			N				N							
Potassium	210 ppm	*****	*****	*****	*****	P205	15	Band	*	P2O5				P <sub>2</sub> O	5						
0-24''	20 lb/ac					K <sub>2</sub> O	0			K <sub>2</sub> O				K₂C							
Chloride	2015/00					CI		Not Ava	ilable												
0-6'' 6-24''	18 lb/ac	******	*****	•						CI				CI							
Sulfur						S	15	Band	1	S				S							
Boron	0.5 ppm	*****				В	1	Broadc	ast	в				В							
Zinc	2.87 ppm	*****	*****	*****	****	Zn	0			Zn				70		_					
Iron	83.1 ppm	******	*****	*****	****					211				Zn							
Manganese	10.7 ppm	*****	*****	*****	****	Fe	0			Fe				Fe							
Copper	1.45 ppm	*****	*****	*****		Mn	0			Mn				Mn							
Magnesium	402 ppm	******	*****	*****	*****	Cu	0			Cu				Cu							
Calcium	2699 ppm	*****	*****	*****	****	Mg	0			Mg				Mg							
Sodium	25 ppm	****				Lime	0			Lime				Lime	-						
Org.Matter	3.9 %	*****	*****	**																	
Carbonate(CCE)	0.0 %					Soil p	н в	uffer pH	Cati	on Excha	ange	% Bas	e Sat	urati	on (Ty	pical Ra	nge)				
0-6" 6-24" Sol. Salts	0.3 mmho/cm 0.51 mmho/cm	******	****			0-6" <b>6</b> . 6-24" <b>7</b> .	3			17.5 meg	1	(65-75) 77.1	(15-2 19.	20) .2	% K (1-7) 3.1	% Na (0-5) 0.6	% H (0-5)				

General Comments: Coarse Loams (CEC range = 11 to 20) (Medium)

Crop 1: \*\* Chloride yield data is limited for this crop. \* Caution: Seed Placed Fertilizer Can Cause Injury \* Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.
	SOIL TEST REPORT	) <u>N</u>
FARM SERVICES	FIELD ID 6 SAMPLE ID SE22-16-17 FIELD NAME COUNTY 17	
Soil Analysis by Agvise Laboratories (http://www.agvise.com) Northwood: (701) 587-6010 Benson: (320) 843-4109	TWP 16 RANGE SECTION 22 QTR SE ACRES 0 PREV. CROP Barley	E
SUBMITTED FOR: COOL SPRING COLONY	SUBMITTED BY: RE3021 REDFERN FARM-CARBERRY 629 4TH STREET	S
	BOX 930 CARBERRY, MB ROK OHO	REF # 19427718 BOX # 0 LAB # NW89882
Date Sampled 09/28/2017	Date Received 09/30/201	7 Date Reported 6/11/2018

Nutrie	nt In The Soil	I	nterpi	retati	ion	1	st Cr	op Choic	e	2n	d Cro	p Choic	e		3rd C	rop Cho	oice
		VLow	Low	Med	High		Ci	anola-bu		1							
6	0-6" 14 lb/a	ic					YIE	ELD GOAL			YIELD	GOAL			ΥI	ELD GOAL	
0	-24 18 ID/2	C	*				6	0 BU									
0-	24'' 32 lb/a	c				SUC	GEST	ED GUIDELIN	NES	SUGO	GESTED	GUIDELINE	ES	S	UGGES1	ED GUIDE	LINES
Nitrate								Band									
						LB/	ACRE	APPLICA	TION	LB/AG	CRE	APPLICAT	TION	LE	B/ACRE	APPL	ICATION
0	lsen 43 ppr	n *****	*****	*****	*****	N	178	1		N				N			
Potassium	305 ppr	n *****	*****	* * * * * *	*****	P <sub>2</sub> O <sub>5</sub>	10	Ban (Starte	d r)*	P2O5				P <sub>2</sub> O	5		
0-	24'' 48 lb/a	c *****	*****	* * * * * *	**	K <sub>2</sub> O	0			K <sub>2</sub> O				K <sub>2</sub> O			
C 6- Sulfur	20 lb/a 24" 72 lb/a	c ******	******	* * * * * * * *	*****	CI		Not Ava	ilable	CI				CI			
Boron	0.9 ppr	1 *****	*****	*		S	15	Band	1	S				S			
Zinc	7.87 ppn	1 *****	*****	*****	*****	В	0			В				В			
Iron	105.5 ppn	1 *****	*****	*****	*****	Zn	0			Zn				Zn			
Manganese	7.4 ppn	1 *****	*****	*****	*****	Fe	0			Fe				Fe			
Copper	1.81 ppn	1 *****	*****	*****	*	Mn	0			Mn				Mn			
Magnesium	503 ppn	1 *****	*****	*****	*****	Cu	0			Cu				Cu			
Calcium	3869 ppn	*****	*****	*****	*****	Mg	0			Mg				Mg			
Sodium	33 ppn	*****				Lime	0			Lime				Lime			
Org.Matter	6.8 %	*****	*****	*****	*****		T			L						1	
Carbonate(CCE)	0.3 %	**				Soil p	н	Buffer pH	Cati	on Excha Capacity	ange	% Bas	se Sat	Ma	on (Ty	pical Ra	nge)
0 6-2 Sol. Salts	-6" 0.45 mmho/cm 24" 0.44 mmho/cm	*****	****			0-6" <b>6</b> 6-24" <b>7</b>	.4			24.5 meq	1	(65-75) <b>79.1</b>	(15- 17	20) .1	(1-7) 3.2	(0-5) 0.6	(0-5)

General Comments: Fine Loams (CEC range 21 to 30) (Medium) Crop 1: \*\* Chloride yield data is limited for this crop. \* Caution: Seed Placed Fertilizer Can Cause Injury \* Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

	SOIL TEST REPORT	Ν
FARM SERVICES	FIELD ID 1 SAMPLE ID S32-16-17 FIELD NAME COUNTY 17	
Soil Analysis by Agvise Laboratories (http://www.agvise.com) Northwood: (701) 587-6010 Benson: (320) 843-4109	TWP 16 RANGE SECTION 32 QTR S ACRES 0 PREV. CROP Wheat-Spring	W E
SUBMITTED FOR: COOL SPRING COLONY	SUBMITTED BY: RE3021 REDFERN FARM-CARBERRY 629 4TH STREET	S
Date Sampled 09/28/2017	CARBERRY, MB ROK OHO Date Received 09/30/2017	LAB # NW89883 Date Reported 6/11/2018

Nutrient	In The Soil	Ir	nterpr	retatio	on	1	st Cro	op Choic	e	21	nd Cro	p Choic	e		3rd C	rop Ch	oice
		VLow	Low	Med	High		Can	nola-bu									
0-6	5" 20 lb/ac						YIEL	D GOAL			YIELD	GOAL			ΥI	ELD GOAL	8
		*****					55	BU									
0-24	" 32 lb/ac					SUC	GESTER	D GUIDELIN	NES	suc	GESTED	GUIDELINE	ES	SI	UGGEST	ED GUIDE	LINES
Nitrate							В	and									
						LB/	ACRE	APPLICA	TION	LB/	ACRE	APPLICAT	NOI	LE	3/ACRE	APPL	ICATION
Phosphorus	n 13 ppm	*****	*****	*****	**	N	161			N				N			
Potassium	152 ppm	*****	*****	*****	*****	P <sub>2</sub> O <sub>5</sub>	33	Band	*	P <sub>2</sub> O <sub>5</sub>				P <sub>2</sub> O <sub>2</sub>	5		
0-24	'' 24 lb/ac	*****	***			K <sub>2</sub> O	13	Band	*	K <sub>2</sub> O				K <sub>2</sub> O			
Chloride						CI		Not Ava	ilable	CI				CI			
6-24	26 lb/ac 42 lb/ac	******	******	**** ******	****												
Boron						S	15	Band	1	S				S			
Zinc	2 50 ppm	*****	****			В	1	Broadc	ast	В				В			
Iron	114.2 ppm	*****	*****	*****	*****	Zn	0			Zn				Zn			
Manganese	16.0 ppm	*****	*****	*****	*****	Fe	0			Fe				Fe			
Copper	0.81 ppm	*****	******	*****		Mn	0			Mn				Mn			
Magnesium	360 ppm	*****	*****	*****	***	Cu	0			Cu				Cu			
Calcium	3196 ppm	*****	* * * * * *	****	****	Mg	0			Mg				Mg			
Sodium	21 ppm	***				Lime	0			Lime				Lime			
Org.Matter	4.6 %	*****	*****	****					Cati	on Excl	ange	% Bas	e Sat	turati	on (Ty	nical Pa	nge)
Carbonate(CCE)	0.6 %	****				Soil p	HB	uffer pH	Cuti	Capacit	y	% Ca	%	Mg	% K	% Na	% H
0-6" 6-24" Sol. Salts	0.58 mmho/cm 0.53 mmho/cm	******	*****	*		0-6" <b>6</b> 6-24" <b>7</b>	.5			19.5 me	q	(65-75) <b>82.1</b>	(15-	20)	(1-7) <b>2.0</b>	(0-5) 0.5	(0-5)

General Comments: Coarse Loams (CEC range = 11 to 20) (Medium) Crop 1: \*\* Chloride yield data is limited for this crop. \* Caution: Seed Placed Fertilizer Can Cause Injury \* Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 25 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

					S	DIL T	EST	REPORT		)	[	Ν	
FA				FIELI SAMI FIELI COUI	D ID PLE ID D NAMI NTY	22 NE17 17	-16-17	7					
Soil Analys (http Northw Bens	sis by Agvise Labor ://www.agvise.com vood: (701) 587-60 on: (320) 843-410	atories 1) 10 9		TWP SECT PREV	ION . CROF	16 17 Whea	Q <sup>-</sup> t-Spri	RANGE TR NE ACR ng	ES 0		V		E
SU COOL SPRING	BMITTED FOR: COLONY			REDI 629	FERN I 4TH S	SUB Farm-( treet	MITTE	D BY: RE3 RRY	021			S	
				BOX	930	MR		POK OHO		LAB	# 19427 # NW89	720 BOX #	0
Date Sampled	09/28/2017			CAR		, 110	Date R	eceived 09/3	30/201	7		Date Report	ed 6/11/201
Nutrient	In The Soil	I	nterp	retati	on	1:	st Cro	p Choice	21	nd Cro	p Choice	3rd Cr	op Choice
		VLow	Low	Med	High		Can	ola-bu					
0-6 6-24	" 9 lb/ac						YIEL	D GOAL		YIELD	GOAL	YIE	LD GOAL
		****					55	BU					
0-24'	21 lb/ac					SUC	GESTED	GUIDELINES	SUG	GESTED	GUIDELINES	SUGGEST	ED GUIDELINES
Nitrate							B	and					
						LB/	ACRE	APPLICATION	LB/#	ACRE	APPLICATION	LB/ACRE	APPLICATION
Olser Phosphorus	18 ppm	*****	*****	*****	*****	N	172		N			N	
Potassium	240 ppm	*****	*****	*****	*****	P <sub>2</sub> O <sub>5</sub>	19	Band *	P <sub>2</sub> O <sub>5</sub>			P <sub>2</sub> O <sub>5</sub>	
0-24"	40 lb/ac		*****	*****		K <sub>2</sub> O	0		K <sub>2</sub> O			K <sub>2</sub> O	
Chloride 0-6"	30 lb/ac	*****	*****	*****		CI		Not Available	CI			CI	
Sulfur	102 10/ ac	*****	*****	* * * * * *	*****	S	15	Band	S			S	
Boron	0.8 ppm	*****	****			В	1	Broadcast	В			в	
Zinc	2.03 ppm	*****	*****	* * * * * *	*****	Zn	0		Zn			Zn	
Irón	41.6 ppm	*****	*****	*****	*****	Fe	0		Fe			Fe	
Manganese	2.9 ppm	*****	*****	*****	**	Mn	0		Mn			Mo	
Magnesium	0.99 ppm	*****	*****	*****	-	Cu	0						
Calcium	567 ppm	*****	*****	*****	*****	Ma	0		Ma				
Sodium	3831 ppm	*****	*****	*****	*****	Mg			Mg			Mg	
Org. Matter	22 ppm	***				Lime			Lime			Lime	

**Cation Exchange** % Base Saturation (Typical Range) Soil pH Carbonate(CCE) Buffer pH 0.3 % \*\* Capacity % Ca 0-6" 0.34 mmho/cm \*\*\*\*\*\*\*\* 0-6" 7.2 6-24" 0.41 mmho/cm \*\*\*\*\*\*\*\*\*\* 24.6 meq (65-75) (15-20) 6-24" **7.9** Sol. Salts 77.9

\*\*\*\*\*\*\*\*\*

General Comments: Fine Loams (CEC range 21 to 30) (Medium)

6.1 %

\*\*\*\*\*

Crop 1: \*\* Chloride yield data is limited for this crop. \* Caution: Seed Placed Fertilizer Can Cause Injury \* Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 25 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

% Mg

19.2

% K

(1-7)

2.5

% Na

(0-5)

0.4

% H

(0-5)

					SO	IL TEST REPORT			Ν	
FA				FIELI SAMI FIELI COUI	D ID PLE ID D NAME NTY	12 N15-16-17 17				
Soil Analys	is by Agvise Labora	atories		TWP		16 RANGE		N	1	E
(http:	//www.agvise.com	)		SECT	ION	15 QTRN ACRI	ES O			
Northw	ood: (701) 587-60	10		PREV	. CROP	Barley				
Benso	on: (320) 843-4109	9						1		
SU	BMITTED FOR:					SUBMITTED BY: RE3	021			
COOL SPRING	COLONY			REDI	FERN F	ARM-CARBERRY			5	
				629	4TH ST	REET				
				вох	930		REF	# 1942	27721 BOX #	0
				CARE	BERRY,	MB ROK OHO	LAB	# NW8	9878	
Date Sampled	09/28/2017					Date Received 09/3	30/2017		Date Reported	6/11/2018
Nutrient 1	in The Soil	In	iterpi	retati	on	1st Crop Choice	2nd Cro	p Choice	3rd Crop	Choice
		VLow	Low	Med	High	Canola-bu				- <u>1000-</u> Abo - 10 - 31
0-6'' 6-24''	11 lb/ac					YIELD GOAL	YIELD	GOAL	YIELD	GOAL
	2010/40	*****				60 BU				

		*****		6	0 BU								
0-24''	29 lb/ac		SUC	GGESTI	ED GUIDELINES	s	SUGGEST	ED GUIDELIN	ES	S	UGGES	ED GUIDE	LINES
Nitrate					Band								
			LB/	ACRE	APPLICATI	ON	LB/ACRE	APPLICA	TION	L	B/ACRE	APPL	ICATION
Olsen Phosphorus	12 ppm	*****	N	181			N			N			
Potassium	265 ppm		* P2O5	39	Band *		P <sub>2</sub> O <sub>5</sub>			P <sub>2</sub> C	D <sub>5</sub>		
0-24''	48 lb/ac		K <sub>2</sub> O	0			K <sub>2</sub> O			K20	c C		
Chloride 0-6" 6-24"	20 lb/ac	*****	СІ		Not Availa	ble	СІ			CI			
Sulfur	72 ID/ac	***************	S	15	Band		s			S	1		
Boron	0.6 ppm	*****	в	1	Broadcast	t	в			В			
Zinc	3.41 ppm	*****	Zn	0			Zn			Zn	_	_	
Iron	101.7 ppm	*****	Fe	0	-		Fe			Fo			
Manganese	12.1 ppm	****** ***** ******											
Copper	1.27 ppm	*****	Mn	0			Mn			Mn			
Magnesium	442 ppm	*****	Cu	0			Cu			Cu			
Calcium	3234 ppm	*****	Mg	0			Mg			Mg			
Sodium	25 ppm	****	Lime	0			Lime			Lim	e		
Org.Matter	6.1 %	*****		T									
Carbonate(CCE)	0.2 %	*	Soil p	н	Buffer pH	Catio	on Exchange	e % Ba	se Sat	turat	ion (Ty	pical Ra	nge)
0-6" 6-24" Sol. Salts	0.23 mmho/cm 0.47 mmho/cm	*****	0-6" <b>6</b> 6-24" <b>7</b>	.0		2	20.6 meq	% Ca (65-75) 78.3	(15- 17	20)	% K	(0-5)	% H (0-5)

General Comments: Fine Loams (CEC range 21 to 30) (Medium)

Crop 1: \*\* Chloride yield data is limited for this crop. \* Caution: Seed Placed Fertilizer Can Cause Injury \* Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

	sc	OIL TEST REPORT		N	
Dodform	FIELD ID	13			
Reger	SAMPLE ID	N14-16-17			
FARM SERVICES	FIELD NAME	E			
	COUNTY	17	147	1	_
Soil Analysis by Agvise Labora	tories TWP	16 RANGE	VV	1	E
(http://www.agvise.com	) SECTION	14 QTRN ACRE	ES O		
Northwood: (701) 587-60	10 PREV. CROP	> Wheat-Spring	-		
Benson: (320) 843-4109					
SUBMITTED FOR:	Ŷ	SUBMITTED BY: RE3	021		
COOL SPRING COLONY	REDFERN F	FARM-CARBERRY		S	
	629 4TH ST	TREET			
	BOX 930		REF #	19427722 BOX	< # O
	CARBERRY,	, МВ R0К 0Н0	LAB #	NW89879	
Date Sampled 09/28/2017		Date Received 09/3	30/2017	Date Rep	orted 6/11/2018
Nutrient In The Soil	Interpretation	1st Crop Choice	2nd Crop C	Choice 3rd	Crop Choice

Nutri	enti	n The Soll	1 II	nterpi	retati	on	1 1	st Ci	rop Choic	e	2n	d Cro	p Choice	е		3rd C	rop Cho	pice
			VLow	Low	Med	High		Cá	anola-bu									
	0-6"	13 lb/ac 24 lb/ac						YIE	ELD GOAL			YIELD	GOAL			ΥI	ELD GOAL	
		2410/00	*****	*				5	5 BU									
5	0-24''	37 lb/ac					SUC	GEST	ED GUIDELIN	IES	SUG	GESTED	GUIDELINE	ES	S	UGGEST	ED GUIDE	LINES
Nitrate									Band									
							LB/	ACRE	APPLICA	TION	LB/A	CRE	APPLICAT	NOI	LE	B/ACRE	APPL	ICATION
Phosphorus	Olsen	40 ppm	*****	*****	*****	*****	N	156	i		N				N			
Potassium		268 ppm	*****	*****	*****	*****	P <sub>2</sub> O <sub>5</sub>	10	Ban (Starte	d r)*	P <sub>2</sub> O <sub>5</sub>				P <sub>2</sub> O	5		
Chloride	0-24''	64 lb/ac	*****	*****	*****	*****	K <sub>2</sub> O	0			K <sub>2</sub> O				K <sub>2</sub> O			
Cultur	0-6" 6-24"	24 lb/ac 54 lb/ac	******	******	**** *****	*****	CI		Not Avai	ilable	CI				CI			
Boron		0.7 nnm					S	15	Band	i	S				S			
Zinc		5.80 ppm	******	*****	*****		В	1	Broadc	ast	в				В			
Iron		75.1 ppm	*****	*****	*****	*****	Zn	0			Zn				Zn			
Manganese		5.6 ppm	*****	*****	*****	*****	Fe	0			Fe				Fe			
Copper		0.88 ppm	*****	*****	*****		Mn	0			Mn				Mn			
Magnesium		332 ppm	*****	*****	*****	***	Cu	0			Cu				Cu			
Calcium		2986 ppm	*****	*****	*****	*****	Mg	0			Mg				Mg			
Sodium		24 ppm	****				Lime				Lime				Lime			
Org.Matter		7.2 %	*****	*****	*****	*****					LL		0/ D-					
Carbonate(CCE)		0.3 %	**				Soil p	н	Buffer pH	Cati	Capacity	ange v	% Bas	e Sat	Ma	on (fy	pical Ra	nge)
6 Sol. Salts	0-6" -24"	0.19 mmho/cm 0.18 mmho/cm	****				0-6" <b>7</b> 6-24" <b>7</b>	.0			18.5 me	, q	(65-75) 80.8	(15-)	20) .0	(1-7) 3.7	(0-5) 0.6	(0-5)

General Comments: Coarse Loams (CEC range = 11 to 20) (Medium) Crop 1: \*\* Chloride yield data is limited for this crop. \* Caution: Seed Placed Fertilizer Can Cause Injury \* Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 25 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

					S	DIL 1	EST	REPORT				N	
FA				FIEL SAM FIEL	D ID PLE ID D NAMI	16+1 S11+	7 12-16	-17		Ĩ			
Soil Analy: (http Northv Bens	sis by Agvise Labor. ://www.agvise.com vood: (701) 587-60 on: (320) 843-410	atories ) 10 9		COU TWP SECT	NTY FION <del>7. CROF</del>	17 16 11 Whea	Q t <b>-Spri</b>	RANGE TR SEC 12 S ACR	ES O		N		Ε
SU COOL SPRING	BMITTED FOR: COLONY			RED 629 BOX	FERN F 4TH S 930	SUB ARM-0 TREET	MITTE	ED BY: RE3	021	REF	# 19427	S 723 BOX #	0
				CAR	BERRY	, МВ		ROK OHO		LAB	# NW89	880	
Date Sampled	09/28/2017					4	Date R	eceived 09/3	80/201	7		Date Report	ed 6/11/2018
Nutrient	In The Soil	I	nterp	retati	ion	1	st Cro	p Choice	21	nd Cro	p Choice	3rd C	rop Choice
	_	VLow	Low	Med	High		Can	ola-bu					
0-6 6-24	" 5 lb/ac " 12 lb/ac	***					YIEL	D GOAL		YIELD	GOAL	YI	ELD GOAL
0-24'	17 lb/ac					suc	GGESTED	GUIDELINES	SUC	GGESTED	GUIDELINES	SUGGEST	ED GUIDELINES
Nitrate							В	and					
						LB/.	ACRE	APPLICATION	LB/	ACRE	APPLICATION	LB/ACRE	APPLICATION
Olser Phosphorus	9 ppm	*****	*****	* *		N	176		N			N	
Potassium	217 ppm	*****	*****	*****	*****	P <sub>2</sub> O <sub>5</sub>	44	Band *	P <sub>2</sub> O <sub>5</sub>			P <sub>2</sub> O <sub>5</sub>	
0-24'' Chloride	20 lb/ac	*****	**			K <sub>2</sub> O	0		K <sub>2</sub> O			K <sub>2</sub> O	
0-6'' 6-24''	20 lb/ac 60 lb/ac	******	*****	**	*****	СІ		Not Available	CI			CI	
Sulfur						S	15	Band	S			S	
Zinc	0.5 ppm	*****	**			В	1	Broadcast	В			В	
Iron	64.3 ppm	*****	*****			Zn	2	Band (Trial)	Zn			Zn	
Manganese	11.8 ppm	*****	*****	*****	*****	Fe	0		Fe			Fe	
	TT'o bbu	*****	*****	****	*****								

General Comments: Fine Loams (CEC range 21 to 30) (Medium)

0.85 ppm \*\*\*\*\*

3389 ppm \*\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

461 ppm

17 ppm \*\*

4.1 %

0.4 % \*\*

0.44 mmho/cm \*\*\*\*\*\*\*\*\*\*

0.46 mmho/cm \*\*\*\*\*\* \*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

Copper

Calcium

Sodium

Org.Matter

Sol. Salts

Carbonate(CCE)

0-6

6-24

Magnesium

Crop 1: \*\* Chloride yield data is limited for this crop. \* Caution: Seed Placed Fertilizer Can Cause Injury \* Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 25 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Mn

Cu

Mg

Lime

Soil pH

0-6" 6.7

6-24" **7.8** 

\*\*\*\*

0

0

0

0

Buffer pH

Mn

Cu

Mg

Lime

**Cation Exchange** 

Capacity

21.4 meq

% Ca

(65-75)

79.1

Mn

Cu

Mg

Lime

% Mg

(15-20)

17.9

% Base Saturation (Typical Range)

% K

(1-7)

2.6

% Na

(0-5)

0.3

% H

(0-5)



## Appendix G – Crop Rotation Table



#### **CROP ROTATION TABLE**



А	В	С	D	E
Expected Crops in the Rotation	Acreage	Historical Yield	Units	Source of Yield Information
Liberty Links (Canola)	1548	55	bu/ac	MASC Data
CPS Wheat	737	80	bu/ac	MASC Data
Feed Barley	1312	90	bu/ac	MASC Data
Red Spring Wheat	1513	60	bu/ac	MASC Data
Total Net Acreage for Manure Application	5110			

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 (<u>http://www.masc.mb.ca/masc.nsf/index.html?OpenPage</u>) 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.



## Appendix H – Manitoba Agriculture Land Base Calculator



#### Manitoba Agriculture Land Base Calculator

#### **Colour Conventions:**

Farm specific data can be entered in the yellow cells of each tab. Where appropriate, default values have been provided but can be changed. Fixed data are provided in the grey cells of each tab.

Calculated values are shown in the green cells of each tab.

The land base required for nitrogen (N) and phosphorus (P2O5) are provided in the amber cells on tab 4.

#### **Data Entry and Tab Information:**

Enter the operation name on all of the livestock tabs (1a to 1e) associated with your farm. Enter all of the livestock for your farm and associated data in the yellow cells under tabs 1a to 1e. Enter all of the crop rotation data on tab 2. Long-term crop yield averages using MASC records are required for Provinical Technical Review Site Assessments. Total nitrogen (N) and total phosphorus (P2O5) excreted by the livestock are summarized on tab 3. Nutrient excretion, crop nutrient use and acres required for nitrogen (N) and phosphorus (P2O5) are summarized on tab 4.

#### For assistance, contact:

Clay Sawka, Nutrient Management Specialist, Manitoba Agriculture, (204) 750-3066 Petra Loro, Livestock Environment Specialist, Manitoba Agriculture, (204) 918-0325

Last revised October 16, 2018

Operation Name:	2-81 Holdings Co. Ltd.					
Operation Type	Storage Type	Volatilization	Animal Numbers	Average Animal Wt	N Excreted Per Herd Adjusted for Storage N Loss	P2O5 Excreted Per Herd Per Year
			(Places)	(lb)	(lb/yr/herd)	(lb/yr/herd)
Boars (Purchased)	Liquid Uncovered Earthen	30%	0	465	0	0
			0			
Weanlings	Liquid Uncovered Earthen	30%	0	38	0	0
Growers/Finishers	Liquid Uncovered Earthen	30%	0	171	0	0
			0			
Sows, farrow to 6.2 kg	Liquid Uncovered Earthen	30%	0	n/a	0	0
Sows, farrow to 28 kg	Liquid Uncovered Earthen	30%	0	n/a	0	0
Sows, farrow to finish	Liquid Uncovered Earthen	30%	575	n/a	163083	86242

. .

Last Revised April 26, 2018

1b - Beef												
Operation Name:							4					
Operation Type	Animal Category	Storage Type	Volatilization	Animal Numbers	Weight In (lb)	Weight Out (Ib)	Average Animal Wt (Ib)	Days per Cycle (Days)	Cycles per Year	Rate of Gain (Ib/day)	Days Place is Occupied per Year (days)	P2O5 Excreted Per Herd Per Year (Ib P2O5/year)
Cow Calf	Mature Cows and Bred Heifers, plus associated livestock	Field Storage	40%	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0
Feeder	Feedlot Cattle - long keep	Field Storage	40%	0	581	1300	941	240	1.0	3.00	240	0
Feeder	Feedlot Cattle - short keep	Field Storage	40%	0	975	1300	1138	116	1.0	2.80	116	0
Feeder	Backgrounders - pasture	Field Storage	40%	0	793	975	884	105	1.0	1.73	105	0
Feeder	Backgrounders - confined	Field Storage	40%	0	500	793	647	180	1.0	1.63	180	0

Last Revised January 21, 2015

1c - Dairy Operation Name:					
Туре	Storage Type	Volatilization	Animal Numbers	N Excreted Per Herd Adjusted for Storage N Loss (lb/yr/herd)	P2O5 Excreted per Herd Per Year (lb/yr/herd)
Mature Cows, plus associated livestock	Liquid Uncovered Earthen	30%	4	1043	554

### Last revised August 20, 2014

	1d	-S	he	e	p
--	----	----	----	---	---

Operation Name										
Sheep/Operation Type	Storage Type	Volatilization	Animal Numbers	Weight In	Weight Out	Ave Weight	Days on Feed	Cycles per Year	N Excreted per Flock adjusted for Loss	P2O5 Excreted Per Flock
				lb	lb	lb			lb/flock/yr	lb/flock/yr
Ewes	Field Storage	40%	0	120	170	145	365	1	0	0
Replacement Ewes	Field Storage	40%	0	45	80	63	210	1	0	0
Rams	Field Storage	40%	0	100	200	150	365	1	0	0
Lambs	Field Storage	40%	0	8	45	27	70	1.4	0	0
Ewes, plus assoc livestock	Field Storage	40%	0	n/a	n/a	n/a	n/a	n/a	0	0
Feeder	Field Storage	40%	0	45	100	73	365	1	0	0

1e - Poultry Operation Name:											
Species / Commodity	Type of Operation	Storage Type	Volatilization	Bird Places	Weight In (lb)	Weight Out (lb)	Average Weight (lb)	Days on Feed	Cycles per Year	N Excreted Adjusted for N Loss Ib/flock/yr	P2O5 Excreted Ib/flock/yr
Chickens	Broilers	Field Storage	40%	96000	0.05	4.36	2.20	33	7.4	29748	33115
Chickens	Broiler Breeder Pullets	Field Storage	40%	0	0.05	4.40	2.23	140	2	0	0
Chickens	Broiler Breeder Hens	Field Storage	40%	0	4.40	8.67	6.53	273	1	0	0
Eggs	Layer Pullets	Liquid Covered	10%	0	0.05	3.04	1.54	133	2	0	0
Eggs	Layer Hens	Liquid Covered	10%	500	3.03	3.74	3.38	355	1	615	469
Eggs	Breeder Pullets	Liquid Covered	10%	0	0.05	3.04	1.54	133	2	0	0
Eggs	Breeder Hens	Liquid Covered	10%	0	3.03	3.74	3.38	351	1	0	0
Turkey	Broiler Hens (0-9 wks)	Field Storage	40%	400	0.06	12.39	6.22	63	4	271	287
Turkey	Hens (0-11 wks)	Field Storage	40%	0	0.06	16.46	8.26	77	3.5	0	0
Turkey	Heavy Hens (0-14 wks)	Field Storage	40%	0	0.06	21.19	10.62	98	3	0	0
Turkey	Light Toms (0-12 wks)	Field Storage	40%	0	0.06	21.19	10.62	84	3	0	0
Turkey	Toms (0-13 wks)	Field Storage	40%	0	0.06	26.84	13.45	91	3	0	0
Turkey	Heavy Toms (0-15 wks)	Field Storage	40%	0	0.06	30.29	15.18	105	2.5	0	0
Turkey	Breeding Hen Growers (0-30 wks)	Field Storage	40%	0	0.06	26.95	13.51	210	1	0	0
Turkey	Breeding Hens (30-60 wks)	Field Storage	40%	0	26.95	24.95	25.95	210	1	0	0
Turkey	Breeding Tom Grower (0-18 wks)	Field Storage	40%	0	0.06	33.92	16.99	126	2	0	0
Turkey	Breeding Tom Grower (0-30 wks)	Field Storage	40%	0	0.06	50.89	25.47	210	1	0	0
Turkey	Breeding Tom (30-60 wks)	Field Storage	40%	0	50.89	61.86	56.38	210	1	0	0

2 - Crop Rotation										
Operation Name:					2-81 Holdi	ngs Co. Ltd.				
	Remo	val	Uptake					Rem	noval	Uptake
Crop	P2O5	N	Ν	Units	Yield	Units	Acreage	P2O5	N	Ν
								(lb)	(lb)	(lb)
Alfalfa	13.8	58	58	lb/ton		ton/ac	0			17
Barley Grain	0.42	0.97	1.39	lb/bu	76.9	bu/ac	1179	38079	87945	126024
Barley Silage	11.8	34.4	34.4	lb/ton		ton/ac	0	-	5	174
Canola	1.04	1.93	3.19	lb/bu	42.2	bu/ac	1716	75312	139761	231004
Corn Grain	0.44	0.97	1.53	lb/bu		bu/ac	0	÷	8	-
Corn Silage	12.7	31.2	31.2	lb/ton		tons/ac	0	2	<u>i</u>	арана 1917 - С.
Dry Edible Beans	1.39	4.17		lb/cwt		cwt/ac	0	-	4	-
Fababeans	1.79	5.02	8.4	lb/cwt		cwt/ac	0	-	÷	-
Flax	0.65	2.13	2.88	lb/bu		bu/ac	0	-	-	
Grass Hay	10	34.2	34.2	lb/ton		tons/ac	0	÷	÷	( <b>*</b> 2)
Lentils	1.03	3.39	5.08	lb/cwt		cwt/ac	0		÷	
Oats	0.26	0.62	1.07	lb/bu		bu/ac	0	-		-
Pasture (grazed)	10	34.2	34.2	lb/ton	0.5	ton/ac	0		5	150
Peas	0.69	2.34	3.06	lb/bu		bu/ac	0	-		150
Potatoes	0.09	0.32	0.57	lb/cwt		cwt/ac	0	÷	3	-
Rye	0.45	1.06	1.67	lb/bu		bu/ac	0	2	4	14 C
Soybeans	0.84	3.87	5.2	lb/bu		bu/ac	0		<u>1</u>	-
Sunflower	1.1	2.8		lb/cwt		cwt/ac	0	-	÷	(e)
Wheat - Spring	0.59	1.5	2.11	lb/bu	61.7	bu/ac	2215	80633	204998	288364
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac	0	-	-	-
						Total Acres	s 5110	194024	432705	645393
			Estimate	d Average R	temoval/U	ptake (lb/ac	)	38.0	84.7	126.3
				Acres in Ha	nover and	La Broquerie	e 0			
			Pro	portion in H	anover or	La Broquerie	e 0%			
					Add	itional Acres	s 0			
				Crop Plann	ned on Add	itional Acres	s <mark>0</mark>			
					Т	otal Acreage	5110			
*Netori	Enter the num	ber of acr	es that are i	in the RM's d	of Hanover	or La Broque	erie in cell H2	26.		
Notes:	Additional acr	es include	acres for w	hich crop re	moval or so	il data is lim	ited or unava	ailable.		

3 - Farm Excretion	2-81 Holdings Co. 1td		
Species	Animal Category/Oneration type	N	P205
opecies	Animal category/operation type	(lb/year)	(lb/year)
	Boars	0	0
	Weanlings	0	0
	Growers/finishers	0	0
Pigs	Sows, farrow to 5 kg	0	0
	Sows, farrow to 23 kg	0	0
	Sows, farrow to finish	163083	86242
	Mature Cows and Bred Heifers, plus associated livestock	0	0
	Feedlot Cattle - long keep	0	0
Beef	Feedlot Cattle - short keep	0	0
	Backgrounders - pasture	0	0
	Backgrounders - confined	0	0
Dairy	Mature Cows, plus assoc livestock	1043	554
	Ewes	0	0
	Replacement Ewes	0	0
Chaon	Rams	0	0
Sneep	Lambs	0	0
	Ewes, plus assoc livestock	0	0
	Feeder	0	0
	Broilers	29748	33115
Chickens	Broiler Breeder Pullets	0	0
	Broiler Breeder Hens	0	0
	Layer Pullets	0	0
Invore	Layer Hens	615	469
Layers	Breeder Pullets	0	0
	Breeder Hens	0	0
	Broiler Hens (0-9 wks)	271	287
	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
Turkeys	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
	Tota	194760	120667

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:	2-81 Holdings Co. Ltd.
Nutrients Excreted	lbs
Nitrogen	194760
Phosphorus (P2O5)	120667
Crop Nutrient Use	lb/ac
Crop N Uptake	126.3
Crop Phosphorus (P2O5) Removal	38.0
Operation-specific Phosphorus (P2O5) Credit	75.9
Land Available	5110
Land Base Required	acres
Acres for Nitrogen	1542
Acres for Phosphorus (P2O5)	1589
Phosphorus Balance	acres
Acres for Phosphorus Balance (1X)	3178

Last revised October 16, 2018



## Appendix I – Conservation Data Centre Report



### **Kyla Dietrich**

From:	Murray, Colin (SD) <colin.murray@gov.mb.ca></colin.murray@gov.mb.ca>
Sent:	Wednesday, August 7, 2019 2:33 PM
То:	Kyla Dietrich
Subject:	Data request K Dietrich 20190807 SW SE-24-016-17W1

Hi Kyla

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. This includes the primary location: SW and SE-24-016-17W1; and a two kilometer radius buffer from the edge of the quarter section.

The information provided in this letter is based on existing data known to the Manitoba Conservation Data Centre (CDC) 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 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 please contact me directly at (204) 945-7760.

Colin

Reference screen clip:



Colin Murray Information Manager Manitoba Conservation Data Centre Wildlife and Fisheries Branch Department of Sustainable Development

200 Saulteaux Crescent Winnipeg, Manitoba, R3J3W3 204-945-7760 colin.Murray@gov.mb.ca http://www.gov.mb.ca/sd/cdc/index.html



-----Original Message-----From: Friesen, Chris (SD) <Chris.Friesen@gov.mb.ca> Sent: August-07-19 1:02 PM To: Murray, Colin (SD) <Colin.Murray@gov.mb.ca> Subject: FW: Conservation Data Centre Review Importance: High

For your attention.