Technical Document RA23031

Part 2 — Technical Requirements

NRCB	Natural	Resources ation Board

Application under the Agricultural Operation Practices Act for a confined feeding operation, manure collection area, and/or manure storage facility(ies

NRCB USE ONLY		Application number		nd description		
M security D Posistration	☐ Authorization	RA23031	W1/2 1	4-41-27 W4M		
Approval	Addition 2 dates					
APPLICATION DISCLOSU	RE					
his information is collected under to rovisions of the Freedom of Informatite request that certain sections	nation and Protection of s remain private.	of Privacy Act. This information is	public unless the	NRCB grants a		
ny construction prior to obtain rosecution.						
, the applicant, or applicant's agen rovided in this application is true t	t, have read and unde to the best of my know	rstand the statements above, and ledge.	d I acknowledge	that the information		
November 22, 2023						
Date of signing		Si				
Stonybrook Farms Ltd.		Tyler Guppy				
Corporate name (if applicable)		Print name				
Heifer Barn Solid manure storage	pnd			, width, and depth) 187, 25, 1 5 x 23		
Existing facilities: list ALL existi	ing confined feeding o	peration facilities and their dimer	esions			
Existing facilities			Dimensions (m) (length, width, and depth)			
actating Milk Cow Barn (nor	th)	101.2, 3	101.2, 31.4, 0			
Lactating wilk cow barri (nor	Lactating Milk Cow Barn (south) 122					
	ıth)	122.0, 2				
		114, 90	, 4.4			

Last updated September 11, 2023

${\bf Part\ 2-Technical\ Requirements}$

NRCB Natural Resources Conservation Board

Application under the Agricultural Operation Practices Act for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

Existing facilities continued	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
Manure Reception Pit	4.9, 4.9, 3.1	
	14-14	



Application under the Agricultural Operation Practices Act for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

If a new facility is replacing an old facility, please explain what will happen to the old facility and when.	□ N/A
September 30, 2024 Construction completion date for proposed facilities	
Additional information	
The proposed new heifer barn is anticipated to kick-off construction activities in the spring of 2024. proposed facility will be designed to house replacement stock inside the barn year round. The barn designed as a pack barn and the pack will be fully cleaned out twice annually and the associated so manure and compost will be spread directly on crop land during barn clean out. To accommodate be clean out activities the animals housed within the barn may be moved outside to temporary pens act the barns to support clean out activities. These temporary pens may also be used from time to time various activities such as sorting, processing and moving stock that will be housed in the pack barn	is olid parn pack djacent to e for

Livestock numbers: Complete only if livestock numbers are different from what was identified in the Part 1 application. Note: if livestock numbers increase in your Part 2 application, a new Part 1 application must be submitted which may result in a loss of priority for minimum distance separation (MDS).

Livestock category and type Proposed increase or (Available in the Schedule 2 of the Part 2 Matters Permitted number decrease in number Total Regulation) (if applicable) Lactating Dairy Cows 350 100 450 Dairy Dry Cows 40 30 70 Replacement Stock (up to 24 months old) 240 260 500

Last updated September 11, 2023



Application under the Agricultural Operation Practices Act for a confined feeding operation, manure collection area, and/or manure storage facility(les)

DECLARATION AND ACKNOWLEDGMENT OF APPLICANT CONCERNING WATER ACT LICENCE issued by Alberta Environment and Protected Areas (EPA) for a confined feeding operation (CFO)

Date and sign one of the following four options OPTION 1: Applying through the NRCB for both the AOPA permit and the Water Act licence I **DO** want my water licence application coupled to my AOPA permit application. Signed this 22 day of November , 2023 OPTION 2: Processing the AOPA permit and Water Act licence separately 1. I (we) acknowledge that the CFO will need a new water licence from EPA under the Water Act for the development or activity proposed in this AOPA application. 2. I (we) request that the NRCB process the AOPA application independently of EPA's processing of the CFO's application for a water licence. 3. In making this request, I (we) recognize that, if this AOPA application is granted by the NRCB, the NRCB's decision will not be considered by EPA as improving or enhancing the CFO's eligibility for a water licence under the Water Act. 4. I (we) acknowledge that any construction or actions to populate the CFO with livestock pursuant to an AOPA permit in the absence of a Water Act licence will not be relevant to EPA's consideration of whether to grant the Water Act licence application. 5. I (we) acknowledge that any such construction or livestock populating will be at the CFO's sole risk if the Water Act licence application is denied or if the operation of the CFO is otherwise deemed to be in violation of the Water Act. This risk includes being required to depopulate the CFO and/or to cease further construction, or to remove "works" or "undertakings" (as defined in the Water Act). 6. AS RELEVANT: I (we) acknowledge that the CFO is located in the South Saskatchewan River Basin and that, pursuant to the Bow, Oldman and South Saskatchewan River Basin Water Allocation Order [Alta. Reg. 171/2007], this basin is currently closed to new surface water allocations. 7. Provide: Water licence application number(s) ____ Signed this _____, 20_____, Signature of Applicant or Agent **OPTION 3: Additional water licence not required** 1. I (we) declare that the CFO will not need a new licence from EPA under the Water Act for the development or activity proposed in this AOPA application. Provide: Water license number(s) or water conveyance agreement details ______ Signed this _____ day of ______, 20____. Signature of Applicant or Agent

Last updated September 11, 2023

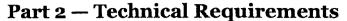


Application under the Agricultural Operation Practices Act for a confined feeding operation, manure collection area, and/or manure storage facility(les)

<u>OPTION 4: Uncertain if Water Act licence is needed; acknowledgement of risk (for existing CFOs only)</u>

- 1. At this time, I (we) do not know whether a new water licence is needed from EPA under the *Water Act* for the development or activity proposed in this AOPA application.
- 2. If a new *Water Act* licence is needed, I (we) request that the NRCB process the AOPA application **independently of** EPA's processing of the CFO's application for a water licence.
- 3. In making this request, I (we) recognize that, if this AOPA application is granted by the NRCB, the NRCB's decision will not be considered by EPA as improving or enhancing the CFO's eligibility for a water licence under the *Water Act*.
- 4. I (we) acknowledge that any construction or actions to populate the CFO with additional livestock pursuant to an AOPA permit in the absence of a *Water Act* licence will **not** be relevant to EPA's consideration of whether to grant my *Water Act* licence application, if a new water licence is needed.
- 5. I (we) acknowledge that any such construction or livestock increase will be at the CFO's sole risk if the Water Act licence application is denied or if the operation of the CFO is otherwise deemed to be in violation of the Water Act. This risk includes being required to depopulate the CFO and/or to cease further construction, or to remove "works" or "undertakings" (as defined in the Water Act).

Signed this _	dav o	f ,	20 .	
				Signature of Applicant or Agent





Application under the Agricultural Operation Practices Act for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

GENERAL ENVIRONMENTAL INFORMATION

(complete this section for the worst case of the existing facility which is the closest to water bodies or water wells and for each of the proposed facilities)

Facility description / name (as indicated on site plan)

Existing: Lactating Milk Cow Barn (south) Proposed 2:				•		arn with attache	d manure pad	
	ty and environmental risk	Facilities				NRCB USE ONLY		
information		Existing	Proposed 1	Proposed 2	Proposed 3	Meets requirements	Comments	
Flood plain information	What is the elevation of the floor of the lowest manure storage or collection facility above the 1:25 year flood plain or the highest known flood level?	■ >1 m	■ >1 m □ ≤ 1 m	□ >1 m □ ≤ 1 m	☐ > 1 m ☐ ≤ 1 m	YES NO YES with exemption	Not in flood plain.	
. c	How many springs are within 100 m of the manure storage facility or manure collection area?	0	0			YES NO YES with exemption	None known.	
Surface water information	How many water wells are within 100 m of the manure storage facility or manure collection area?	0	1			YES NO YES with exemption	ID 2089711 new well adjacent to proposed barn	
Su :i	What is the shortest distance from the manure collection or storage facility to a surface water body? (e.g., lake, creek, slough, seasonal)	100m	35m			YES NO YES with exemption	Confirmed, seasonal drainage	
water lation	What is the depth to the water table?		8m			YES NO YES with exemption	Confirmed	
Groundwater information	What is the depth to the groundwater resource/aquifer you draw water from?	18.3m	18.3m			YES NO YES with exemption	ID 2089711 13.72 m sand and gravel.	

Additional information (attach supporting information, e.g. borehole logs, records, etc. you consider relevant to your application)

No change from existing CFO information provided within existing approval.

2023 Water Source Well - 05-14 AEPA - Water Well Drilling Report



Water Well Drilling Report

View in Imperial Export to Excel

GIC Well ID 2089711 GoA Well Tag No.

Drilling Company Well ID

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database. GOWN ID Well Identification and Location

Date Report Received 2024/01/15 Measurement in Metric Address Town Postal Code STONEYBROOK FARMS **ALBERTA** CANADA Location 1/4 or LSD SEC TWP RGE W of MER Lot Block Plan Additional Description WELL #1 14 27 41 GPS Coordinates in Decimal Degrees (NAD 83) Measured from Boundary of Latitude <u>52.528147</u> Longitude -113.791181 270.05 m m from How Location Obtained How Elevation Obtained m from Differential corrected handheld GPS 5-10m Differential corrected handheld GPS 5-10m

Drilling Information Method of Drilling Type of Work Rotary - Air New Well Proposed Well Use

Viold Toot Cum

L	GLOCK		<u>-</u>	<u> </u>
Ì	Formation Log			Measurement in Metri
	Depth from ground level (m)	Water Bearing	Lithology Description	
ı	3.05		Brown Clay & Rocks	
ı	10.67		Brown Shale	
ı	12.80		Brown Clay	
I	13.72		Brown Loose Sand	
l	16.46	Yes	Sand & Gravel	
i	19.81		Gray Shale	
ı	21.95	Yes	Gray Sandstone	
ı	23.47		Gray Shale	
ı	29.87	Yes	Gray Sandstone	
ı	32.61	-	Gray Shale	
Į	35.05	Yes	Gray Sandstone	
	39.32		Gray Shale	
	48.77	Yes	Gray Fine Grained Sands	tone

1	rield rest Summary	Weasurement in Wearc
-	Recommended Pump Rate45.46	L/min
ı	Test Date Water Removal Rate (L/	min) Static Water Level (m)
	2023/12/20 43.78	25.05
Ī	Well Completion	Measurement in Metric
ı	Total Depth Drilled Finished Well Depth	Start Date End Date
1	48.77 m 48.77 m	2023/12/13 2023/12/13
-	Borehole	
1	Diameter (cm) From (m) <u>To (m)</u>
١	33.02 0.00	1.52
	15.56 1.52 13.02 35.36	35.36 48.77
1	The state of the s	Vell Casing/Liner
1		lastic
ı	Size OD : 16.83 cm	Size OD : 11.43 cm Wall Thickness : 0.544 cm
ł	Wall Thickness . 0.478 cm	
1	Bottom at 24.38 m	Top at : 6.10 m
-		Bottom at . 48.77 m
1	Perforations	
1	Diameter or Slot Width	Slot Length Hole or Slot
İ	From (m) To (m) (cm)	(cm) Interval(cm)
	From (m) To (m) (cm) 36.58 48.77 0.051	7.62 2.54
	Perforated by Machine	
	Annular Seal Bentonite Slurry	
-[Placed from 0.00 m to	35.36 m
	Amount 4.00 Bags	
	Other Seals	
	Type	At (m)
Į	Drive Shoe	24.38
	Shale Trap Shale Trap	35.36 35.05
		33.03
	Screen Type	
1	Size OD	
1	From (m) To (m	Slot Size (cm)
	Attachment	
		Bottom Fittings
	Pack	
		Grain Size
-1	, <u> </u>	·

Contractor Certification

Name of Journeyman responsible for drilling/construction of well TYSON SCHMIDT

Company Name

DARCY'S DRILLING SERVICES LTD.

Certification No

210493A

Copy of Well report provided to owner Yes

Date approval holder signed

2024/01/15

Printed on 3/8/2024 10:08:06 AM

B - 5

Page: 1/3



Water Well Drilling Report

View in Imperial Export to Excel

GIC Well ID GoA Well Tag No.

2089711 A8886

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

Drilling Company Well ID Date Report Received

Well Ident												
*****	ification and L	ocation									Measur	ement in Metric
Owner Nam STONEYBI	e ROOK FARMS	_	Address			Town			Province ALBERTA			Postal Code
Location	1/4 or LSD 5	SEC 14	TWP 41	RGE 27	W of MER 4		Block	Plan	Addition	al Description 1		
Measured fi		f m from m from			GPS Coordina Latitude 52 How Location Differential co	2.528147 Obtained	Longii	tude <u>-113.79</u>	1181	Elevation How Elevation Differential corr	Obtained	
				_		i	Amoun	,		-	1	
Additional	Information					-					Measur	ement in Metric
	rom Top of Casi n Flow Rate	-			71,12 cm	ls F	Flow Cont	rol Installed Describe				
Recomme	nded Pump Rate				45.46 L/min	Pumo la	netallad			Depth		
		•				, 4,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	istaneu _				111	_
	nded Pump Intal		rom TOC)		35.97 m	Type _	_		Make		H.P	
Recommen	nded Pump Intal	ke Depth (I		DS)		Type _			Make		t Rating)	
Recommer Did you t		ke Depth (I	1000 ppm T	DS) Gas	Depth		m	Well Disinfe	Make	Model (Outpu Completion Yes Taken	t Rating)	

Contractor Certification Name of Journeyman responsible for drilling/construction of well TYSON SCHMIDT Company Name

Certification No 210493A

Copy of Well report provided to owner Yes

Date approval holder signed 2024/01/15

Printed on 3/8/2024 10:08:06 AM

Page: 2/3

DARCY'S DRILLING SERVICES LTD.



Water Well Drilling Report

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View in Imperial Export to Excel

GIC Well ID GoA Well Tag No. 2089711 A8886

2024/01/15

Drilling Company Well ID Date Report Received GOWN ID Well Identification and Location Measurement in Metric Province ALBERTA CANADA Owner Name Address Town Postal Code STONEYBROOK FARMS RGE Location 1/4 or LSD SEC TMP W of MER Lot Block Plan Additional Description WELL #1 27 14 41 GPS Coordinates in Decimal Degrees (NAD 83) Measured from Boundary of Latitude <u>52.528147</u> Longitude -113.791181 Elevation 270.05 m How Elevation Obtained How Location Obtained m from Differential corrected handheld GPS 5-10m Differential corrected handheld GPS 5-10m

rield Test	Start Time	Static Water Level	Taken	From Top of Casing Depth to water level	Measurement in Metr
Test Date 2023/12/20	3:00 PM	25.05 m	Pumping (m)	Elapsed Time Minutes:Sec	Recovery (m)
			25.05	0:00	28.30
Method of Water R	Removal		26.67	1:00	26.48
7	Type Pump		26.94	2:00	26.27
Removal F	Rate 43,78 L/m	vin.	27.05	3:00	26.21
		"	27.07	4:00	26.17
Depth Withdrawn F	rom 37.50 m	_	27.13	6:00	<u> 26.12</u>
			27.17	8:00	26.09
lf water removal per	riod was < 2 hours, explain	why	27.20	10:00	26.06
			27.26	13:00	26.03
			27. 2 6	16:00	26.01
			27.30	20:00	25.98
			27.33	25:00	25.95
			27.37	32:00	25.92
			27.40	40:00	25.88
			27.43	50:00	25.85
			27.48	64:00	25.81
			27.51	80:00	25.77
			27.57	100:00	25.73
			27.60	120:00	25.70
			27.66	150:00	25.65
			27.71	190:00	25.60
			27.76	240:00	25.55
			27.84	300:00	25.50
			27.89	380:00	25.45
			27.96	480:00	25.40
			28.03	600:00	25.35
			28.10	760:00	25.29
			28.18	960:00	25.24
			28.24	1200:00	25.19
			28.30	1441:00	25.15
			Pump Test Attachments		
			AT1_table.pdf		

Water Diverted for Drilling			
Water Source	Amount Taken		Diversion Date & Time
TOWN OF PONOKA	5455.31	L	2023/12/12 4:00 PM

Contractor Certification Name of Journeyman responsible for drilling/construction of well TYSON SCHMIDT

Certification No 210493A

Copy of Well report provided to owner Yes

Date approval holder signed 2024/01/15

Printed on 3/8/2024 10:08:06 AM

Company Name

Page: 3 / 3

DARCY'S DRILLING SERVICES LTD.



NRCB USE ONLY WATER WELL AND SURFACE WATER INFORMATION							
Well IDs: ID2089711							
2			*				
Surface water related concerns from di	rectly affected parties or ref	erral agencies:	☐ YES ☑ NO ☑ YES ☐ NO				
Groundwater related concerns from dir	ectly affected parties or refe	rral agencies:	VZ YES □ NO				
Water wells		_, _					
If applicable, exemption for 100 m dist	ance requirements applied:	YES NO Condition	required: YES NO				
Surface water N/A							
If applicable, exemption for 30 m dista	nce requirements applied: L		required: YES NO				
Water Well Exemption Screening T	ool 🗆 N/A						
Water Well ID	Preliminary Screening Score	Secondary Screening Score	Facility				
ID 2089711	Low (5)	N/A	Heifer barn				
	2011 (0)						
			-				
Groundwater or surface water rela	ted comments:						



NRCB USE ONLY ENVIRONMENTAL RISK SCREENING INFORMATION

ERST for proposed facilities

Facility	Groundwater score	Surface water score	File number
Heifer barn	Low	Low	RA23031
Solid manure storage pad	Low	Low	RA23031

ERST for existing facilities

Facility	Groundwater score	Surface water score	File number
EMS	Low	Low	RA18038
Heifer barn (now milking ba	arn) _{Low}	Low	RA14002
Dairy barn	Low	Low	RA14002
Manure reception pit	Low	Low	RA14002

ERST related comments:



Application under the Agricultural Operation Practices Act for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

DISTANCE OF ANY MANURE STORAGE FACILITY (EXISTING OR PROPOSED) TO NEIGHBOURING RESIDENCES

				· .	NRCB USE ON	LY	
Neighbour name(s)	Legal land description	Distance (m)	Zoning (LUB) category	MDS category (1-4)	Distance (m)	Waiver attached (if required)	Meets regulations
Grant & Colleen Salmon	SE 22-41-27-W4	662	Ag	Cat 1	637	N/A	Yes
Eric Hyink	NE 14-41-27-W4	621	Ag	Cat 1	632		Yes
Robin Fischer	SW 14-41-27-W4	743	Ag	Cat 1	717		Yes
Joe Luyks	SE 14-41-27-W4	736	Ag	Cat 1	710		Yes
Henny Bos	SE 21-41-27-W4	1150	Aq	Cat 1	1158		Yes

LAND BASE FOR MANURE AND COMPOST APPLICATION (complete only if an increase in livestock or manure production will occur)

			Γ	NRCB U	SE ONLY
Name of land owner(s)*	Legal land description	Usable area** (ha)	Soil zone ***	Usable area (ha)	Agreement attached (if required)
Stonybrook Farms Ltd	See Additional Info Below	168	Black		
Joute Meinema	See attached	176	Black		Yes
Grant & Colleen Salmon	See attached	133	Black		Yes
Brian Ganson	See attached	113	Black		Yes
			Total	590 ha	

^{*} If you are not the registered landowner, you must attach copies of land use agreements signed by all landowners.

Additional information (attach any additional information as required)

Stonybrook Farms Ltd land base for manure and compost application:

SW 14-41-27-W4 - 56ha

NW 14-41-27-W4 - 56ha

SW 23-41-27-W4 - 56ha

Salmon: SE-22-41-27-W4 100 ac NE-15-41-27-W4 100 ac

SE-15-41-27-W4 130 ac

Last updated September 11, 2023

Total: 330 ac/133 ha

Joute Meinema: SE-33-41-27-W4 155 ac

SW-33-41-27-W4 140 ac

NW-28-41-27-W4 140 ac

Total: 435 ac/176 ha

Brian Ganson: NW-17-41-26-W4 150 ac

SE-19-41-26-W4 130 ac

Total: 280 ac/ 113 ha

^{**} Available manure spreading area (excluding setback areas from residences, common bodies of water, water wells, etc. as identified in Agdex 096-5 Manure Spreading Regulations)

^{***} Brown, dark brown, black, grey wooded, or irrigated



NRCB USE ONLY	
MINIMUM DISTANCE SEPARATION	
Methods used to determine distance (if applicable):	Google earth
Margin of error (if applicable):N/A	
Requirements (m): Category 1: 479 m	Category 2: 639 m Category 3: 798 m Category 4: 1277 m
Technology factor:	☐ YES NO
Expansion factor:	☐ YES NO
MDS related concerns from directly affected parties of	or referral agencies:
LAND BASE FOR MANURE AND COMPO	OST APPLICATION
Land base required: 418 ha	
Land base listed: 590 ha	
Area not suitable: Usable land cal	-
Available area 590 ha	Requirement met: VYES NO
Land spreading agreements required:	S □ NO
Manure management plan: ☐ YES	S ✓ NO If yes, plan is attached: □
PLANS	
Submitted and attached construction plans:	¥YES □ NO
Submitted aerial photos:	¥YES □ NO
Submitted photos:	□ YES NO
GRANDFATHERING	
Already completed:	□ YES □ NO ☑ N/A
If already completed, see	

Land Use Agreement - Manure and Compost Application

February 12, 2018

Legal Land Coordinates: NW 17-41-26-W4M

Farmable Land (approx): 150 acres

Brian Ganson

Land Use Agreement.txt Land Use Agreement - Manure and Compost Application

February 12, 2018

Legal Land Coordinates: SE 19-41-26-W4M

Farmable Land (approx): 130 acres

Brian Ganson

Page 1

Land Use Agreement.txt Land Use Agreement - Manure and Compost Application

February 9, 2018

Farmable Land (approx): 155 140 140

Legal Land Coordinates: SE33-41-27 W4 SW33-41-27 W4 NW28-41-27 W4

Joyte Meinéma

Land Use Agreement - Manure and Compost Application

January 10, 2018

I/We Grant and Colleen Salmon, give Stonybrook Farms Ltd. permission to apply manure and or compost on the following land:

Legal Land Coordinates: SE 22-41-27-W4M NE 15-41-27-W4M SE 15-41-27-W4M

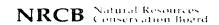
Farmable Land (approx): 100 acres 100 acres 130 acres

Grant Salmon

Colleen Salmon



NRCB USE ONLY		0.					
ALL SIGNATURES	IN FILE	YES [Оио				
DATES OF APPROV	AL OFFICER SITE V	ISITS					
March 22, 202	4						
			2 0				
			9				
CORRESPONDENC	E WITH MUNICIPAL		D REFERRA	AL A	AGENCIES	•	
Date deeming letters sen	t:April 11, 20	24					
Municipality: Lac	combe County	100			.		
✓ letter sent	response received	writter	n/email		verbal		no comments received
Alberta Health Services	s: N/A						
☐ letter sent	☐ response received	☐ writter	n/email		verbal		no comments received
Alberta Environment a	nd Parks:	joint a	application,	soc	Os sent to	EP	A for their process.
✓ letter sent	response received	☐ writter	n/email		verbal		no comments received
Alberta Transportation	: ☑ N/A						
☐ letter sent	response received	☐ writter	n/email		verbal		no comments received
Alberta Regulatory Ser	vices:						
☑ letter sent	response received		n/email		verbal		no comments received
Freedhold Energy	y, Transglobe Energy	y, ATCO	Gas, Spark	Infra	astructure		
letter sent	response received	writter	n/email		verbal	\triangle	no comments received
Other:					D N/	/A	
☐ letter sent	response received	☐ writter	n/email		verbal		no comments received

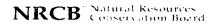


Application under the Agricultural Operation Practices Act for a confined feeding operation, manure collection area and/or manure storage facility(ies)

acilit	acility description / name (as indicated on site plan)		1. Heifer Barn		
			2. Manure storage pud		
nur	storage capacity			T	
	Length (m) Width (m)		Depth below grade to the bottom of the liner (m)	NRCB USE ONLY Estimated storage capacity (m³)	
•	180	20	.5		
2.	∂ ≈3	15	0		
·			TOTAL CAPACITY	Adequate storage for sol on site and with STMS.	
escr he li e in e de	contact at any time with signed to shed surface	control system solid manure & compost surface water run-on or r	materials will be completely cont runoff. The surface grading aroun i. Surface water will be controlled e building.	d the perimeter of the barn shall	
Descr he li e in e de uildi	the the run-on and runoff yestock and associated contact at any time with signed to shed surface ng, as well as the finishe	control system solid manure & compost surface water run-on or r water away from the barn ed landscaping around the	unoff. The surface grading aroun . Surface water will be controlled	d the perimeter of the barn shall by the walls and roof of the	
Describe line de	the the run-on and runoff yestock and associated contact at any time with signed to shed surface ng, as well as the finished manure storage pad	control system solid manure & compost surface water run-on or rwater away from the barned landscaping around the attached outside. Appli	runoff. The surface grading aroun Surface water will be controlled building. cant will control runoff/unoff us	d the perimeter of the barn shall by the walls and roof of the	
Description Descr	be the run-on and runoff yestock and associated contact at any time with signed to shed surface ng, as well as the finished manure storage pad protection libe how the physical integration of the concrete line	control system solid manure & compost surface water run-on or r water away from the barn ed landscaping around the attached outside. Appli prity of the liner will be main are will be engineered and	runoff. The surface grading aroun Surface water will be controlled building. cant will control runoff/unoff us tained will meet and exceed all application cannually at time of manure &	d the perimeter of the barn shall by the walls and roof of the sing walls.	
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Last updated February 26, 2021

Concrete liner details



Application under the Agricultural Operation Practices Act for a confined feeding operation, manure collection area and/or manure storage facility(ies)

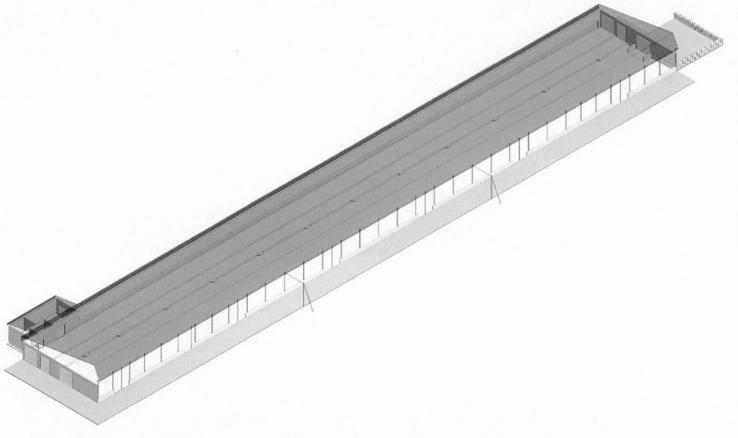
SOLID MANURE, COMPOST, & COMPOSTING MATERIALS: Barns, feedlots, & storage facilities - Concrete liner (cont.)

Concrete thickness	Method of sulphate protection:				
4 inches	Type 50 or Type 10 with 20% flyash				
Concrete strength	Concrete reinforcement size and spacing				
30MPa at 28 days	10mm rebar,	12" on center in both directions	;		
Concrete requirements can be found in Technical Guideline A	gdex 096-93	NRCB USE ONLY			
Guideline minimums: Solid manure: 25MPa (D)		Requirements met:	VZ YES □ NO		
Solid manure (wet): 30MPa (C)		Condition required:	YES NO		
Method of sulphate protection: Type 50 or Type 10 with fly ash or equivalent			1		
Type 50 or Type 10 with Hy ash of equivalent		Report attached:	VZ YES □ NO		
Additional information (attach as required)					
NRCB USE ONLY					
Nine month manure storage volume requirements met	YES	YES With STMS NO			
>8 m		irements met: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	NO		
Depth to water table:	кеф		j		
Depth to Uppermost groundwater resource: 18.3 m	Rea	irements met: YES	NO		
	•				
ERST completed: M see ERST page for details					
Surface water control systems					
Requirements met: ▼YES □ NO Details/comments:					
Concrete liner details					
Concrete micr derans					
Applicant to provide documenta	ation confirn	ning concrete informatio	n.		
, · · · · · · · · · · · · · · · · · · ·					
		·			
Leakage detection system required: YES NO If ye	e nlegeo ovolnis	why			
Preparage detection system required: L1 1E5 Ly NO 11 ye	o, picase expidii	wily.			

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Stonybrook Farms



CONSTRUCTION 7	CONSTRUCTION TAG
FENERA REFERENCE	EXTERIOR FINISH TAG
GRED NUMBER —	CRID BURBLE
DOOR REFERENCE	DOOR TAC
ROOM NUMBER ROOM NAME	ROOH TAG
DESCRIPTION T/O FLOOR O	ELEVATION DATUM
DRAWING NUMBER SHEET NUMBER AAJ	BUILDING SECTION CALLO
DRAWING NUMBER SHEET NUMBER	ELEVATION CALLOUT
MANDOM REPERENCE	WINDOW TAG
еценатурн — ф	ELEVATION TAG
DRAWING TITLE DRAWING NUMBER 12.0 PROPERTY OF STALE	DRAWING TITLE

Sheet Number	Sheet Name	Current Revision
A000	Index	D
A)01	Setback Plan	D
A302	Site Plan	D.
A201	Floor Flan Overall	C
A202	Enlarged Floor Plan	C
A203	Enlarged Floor Plan	c
A401	Building Sections	c
A402	Building Sections	6

Lacombe County, Alberta

Heifer Barn

PRELIMINARY
HOTFOR CONSTRUCTION
aggregate
design studio ltd.
EAGLE
BUILDERS
HOUSE NO. NO. NO.
BULLOVALIS AS TON 100





