

Part 2 – Technical Requirements

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	Legal land description
<input checked="" type="checkbox"/> Approval <input type="checkbox"/> Registration <input type="checkbox"/> Authorization	LA25008	SW 3-11-20 W4M
<input type="checkbox"/> Amendment		

APPLICATION DISCLOSURE

This information is collected under the authority of the *Agricultural Operation Practices Act* (AOPA), and is subject to the provisions of the *Freedom of Information and Protection of Privacy Act*. This information is public unless the NRCB grants a written request that certain sections remain private.

Any construction prior to obtaining an NRCB permit is an offence and is subject to enforcement action, including prosecution.

I, the applicant, or applicant's agent, have read and understand the statements above, and I acknowledge that the information provided in this application is true to the best of my knowledge.

July 14, 2025

Date of signing

Kolk Farms Ltd

Corporate name (if applicable)

Signature

Brad Deleeuw

Print name

GENERAL INFORMATION REQUIREMENTS

Proposed facilities: list all proposed confined feeding operation facilities and their dimensions. Indicate whether any of the proposed facilities are additions to existing facilities. (attach additional pages if needed)	
Proposed facilities	Dimensions (m) (length, width, and depth)
Expand "500" row	62m x 55m
Construct "600" row	65m x 375m
Construct "700/800" row	130m x 375m
Expand east catch basin	73m x 60m x 2m
Solid manure storage	250m x 120m

Existing facilities: list ALL existing confined feeding operation facilities and their dimensions		
Existing facilities	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
receiving row	145m x 50m	
100/200 row	110m x 436m	
300/400 row	123m x 436m	
NRCB USE ONLY		

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

[illegible]

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If a new facility is replacing an old facility, please explain what will happen to the old facility and when. ☒ N/A

AO comment: Kolk Farms also proposed to decommission Catch Basin North (see previous page).

Construction completion date for proposed facilities 11/30/2026

Additional information

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 (Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	Proposed increase or decrease in number (if applicable)	Total
AO comment: Kolk proposed to increase Beef finisher numbers from 9,500 to 15,000 head			

Part 2 – Technical Requirements

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

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 ____ day of _____, 20____.

Signature of Applicant or Agent

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 ____ day of _____, 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.
2. **Provide:** Water license number(s) or water conveyance agreement details _____

Signed this 20 day of May, 2025.

Signed digitally by Brad Deleeuw

Signature of Applicant or Agent

Part 2 – Technical Requirements

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

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*).
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 license number(s) or water conveyance agreement details _____

Signed this ____ day of _____, 20____.

Signature of Applicant or Agent

K3 feedlot

Layout for NRCB

catch basin north

K3 Seeds

catch basin east

catch basin south

Legend

- East Catch Basin expansion
- K3 Seeds
- New pens
- Solid Manure storage

Google Earth

Image © 2025 Airbus

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1000 ft



Part 2 – Technical Requirements

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

Neighbour name(s)	Legal land description	Distance (m)	NRCB USE ONLY				
			Zoning (LUB) category	MDS category (1-4)	Distance (m)	Waiver attached (if required)	Meets regulations
Klassen	SE 4-11-20	207					
Stronks	NW 34-10-20	385					
Iwamoto	NE-4-11-20	793					
Klingenberg	NE 32-10-20	915					
Van Diemen	SW 4-11-20	1001					

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

Name of land owner(s)*	Legal land description	Usable area** (ha)	Soil zone ***	NRCB USE ONLY	
				Usable area (ha)	Agreement attached (if required)
Kolk Farms Ltd	Sec 10-12-20 W4	174	Irrigated		
Kolk Farms Ltd	South 17-12-20 W4	130	Irrigated		
Kolk Farms Ltd	Sec 15-12-20	125	Irrigated		
Kolk Farms Ltd	North 1/2 -9-12-20 W4	100	Irrigated		
Kolk Farms Ltd	South 1/2 -16-12-20 W4	38	Irrigated		
Total					

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

** 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

Additional information (attach any additional information as required)

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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: K3 Feedlot

Proposed 1: K3 Pens

Proposed 2: _____

Proposed 3: _____

Facility and environmental risk information		Facilities				NRCB USE ONLY	
		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?	<input type="checkbox"/> >1 m <input checked="" type="checkbox"/> ≤ 1 m	<input checked="" type="checkbox"/> >1 m <input type="checkbox"/> ≤ 1 m	<input type="checkbox"/> >1 m <input type="checkbox"/> ≤ 1 m	<input type="checkbox"/> > 1 m <input type="checkbox"/> ≤ 1 m	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	
Surface water information	How many springs are within 100 m of the manure storage facility or manure collection area?	0	0			<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	
	How many water wells are within 100 m of the manure storage facility or manure collection area?	0	0			<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	
	What is the shortest distance from the manure collection or storage facility to a surface water body? (e.g., lake, creek, slough, seasonal)	172	60			<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	
Groundwater information	What is the depth to the water table?	4	15			<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	
	What is the depth to the groundwater resource/aquifer you draw water from?	1000	100			<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	

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



P.O. Box 130
Iron Springs, AB T0K 1G0
Business: (403) 738-4596

E-mail:

Office:
Fax:
Cell:

January 14, 2025

Attn: Natural Resources Conservation Board

Consent for permit application

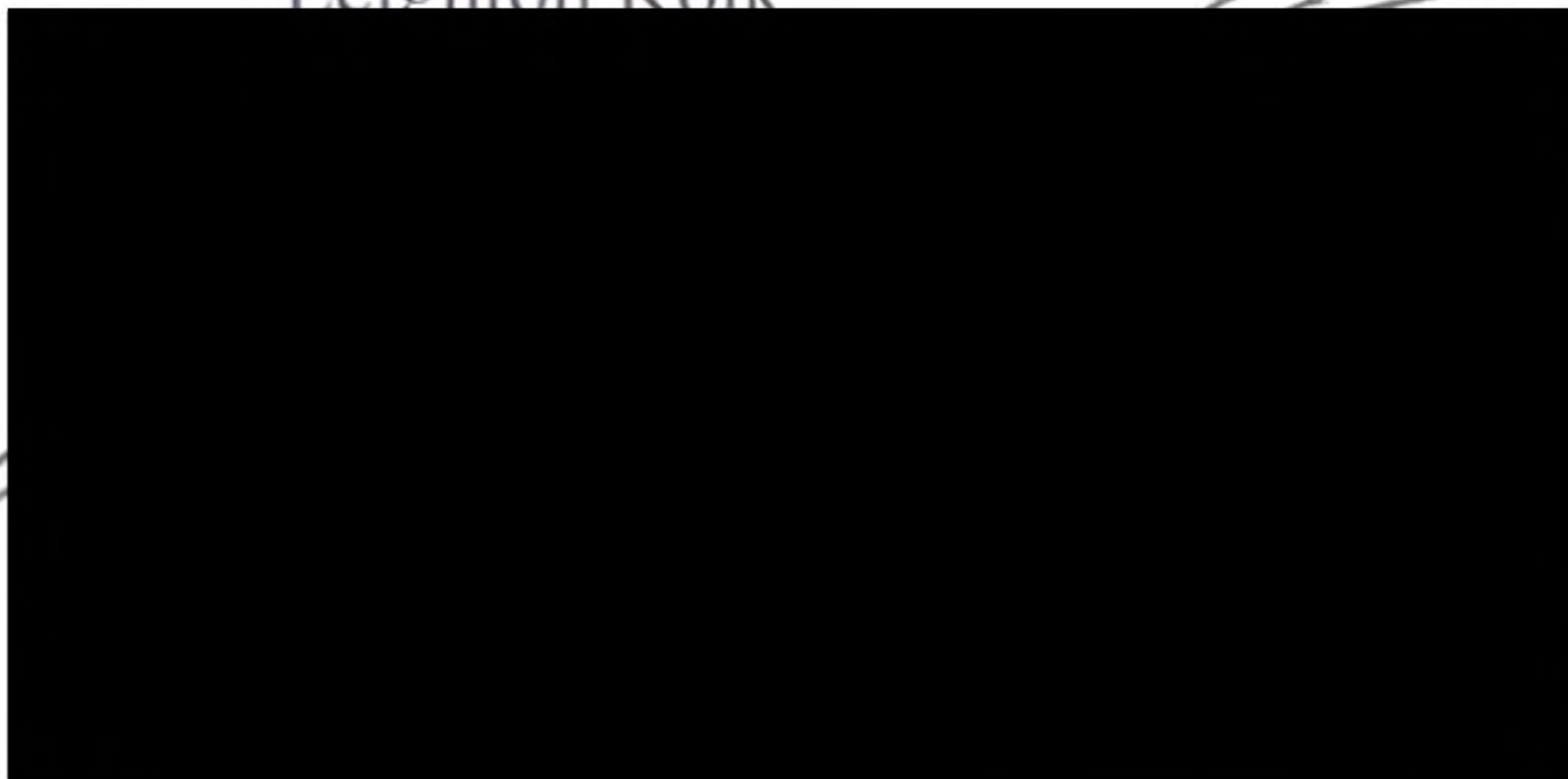
Dear: To Whom It May Concern

I Leighton Kolk of Kolk Farms Ltd at Box 130 at Iron Springs Alberta give my consent to Brad Deleeuw to represent Kolk Farms throughout this application process. This letter serves as my formal agreement and acknowledgement for the stated purpose.

Please feel free to contact me if you require further information.

Sincerely,

Leighton Kolk



Minimum Distance Separation (MDS) Waiver (declaration)

Applicant information NRCB application number: LA25008

Operator/operation name: Kolk Farms Ltd

Address: Box 130 Iron Springs AB Postal Code: T0K 1G0

Legal land location of confined feeding operation: SW-3-11-20-W4

I have requested the residence owner(s) named below to waive the required minimum distance separation (MDS) to their residence for the *Agricultural Operation Practices Act* (AOPA) permit application identified above. In making this request, I have provided the owner(s) with an opportunity to review my permit application and a copy of the Natural Resources Conservation Board (NRCB) Fact Sheet "Minimum Distance Separation (MDS) Waivers" available on the NRCB website at www.nrcb.ca. I have also explained:


- The MDS requirement set out in section 3 of the Standards and Administration Regulation of AOPA. I have advised the owner(s) that section 3(6)(a) of the Standards and Administration Regulation allows this requirement to be waived by the owners of residences, if they agree in writing to grant a waiver;
- That my proposed development does not meet the required MDS to the owner's residence; and,
- That this waiver applies only to this application as described. An increase in livestock capacity, annual manure production, level of odour production, change to the site plan or change to a facility that would increase the MDS would require a new waiver.

Following is a summary of the proposed development:

- The current scope of my confined feeding operation (CFO), including the type, number, and category of livestock, if any, is:
9500 beef finishers
- My application for a new AOPA permit proposes the following changes to the existing livestock category, type and/or capacity at my CFO:
additional 5500 beef finishers (15000 beef finshers total)
- The proposed new CFO facility(ies), or changes to the existing CFO facilities, including manure storage, manure storage volume and any other pertinent details, if any, are (attach a site layout plan if available):
3 alleys 320m X62m each, one catch pond to collect 5000m3 or more.

Site plan attached

I the applicant understand that the waiver is not valid unless ALL registered owners of the residence sign this document.

Permit Applicant: Leighton Kolk Date: June 28, 2025
Signature: 

Residence owner(s) to initial: 

Minimum Distance Separation (MDS) Waiver (declaration)

Residence owner(s) information

ALL Names on land title: Stronks Feedlot Ltd.

Legal land location of residence(s): NW-33-10-20W4

Telephone number(s): [REDACTED] Email address(es)¹: [REDACTED]

Address(es)¹ and Postal code(s)¹: [REDACTED]

¹ Please note that personal contact information is for NRCB use ONLY and not publicly released

I am/we are the legal landowner(s) of a residence(s) located at the above noted legal land location/address:

- I/we have read the NRCB Fact Sheet "Minimum Distance Separation (MDS) Waivers";
- I/we have discussed this application with the applicant and understand its potential impacts to our residence(s);
- I/we understand that the application **does not** meet the MDS requirement to my/our residence(s), under the *Agricultural Operation Practices Act* (AOPA);
- I/we understand that this waiver is not valid unless signed by ALL parties identified on the land title as owners;
- I/we are not obligated to waive the MDS requirement to our residence(s);
- I/we understand that if I/we choose to waive the MDS requirement, I/we can revoke the waiver, by providing written notice to the NRCB approval officer, as set out in the "Minimum Distance Separation (MDS) Waivers" Fact Sheet; and
- I/we understand that this waiver is a public document.

Having considered my/our rights, I/we hereby waive the MDS requirement to my/our residence, with respect to

Application number LA25008

Signatures of all residence owner(s) on title

Ed Stronks

Printed names of all residence owner(s) on title

Date: April 29 2024

K3 Feedlot

Legend



Ranger Rd 203

Google Earth

Image © 2025 Airbus

K3 Seeds

Stronks Feedlot East Lot

1000 ft





P.O. Box 130
Iron Springs, AB T0K 1G0
Business: (403) 738-4596

E-mail: [REDACTED]

Office: [REDACTED]
Fax: [REDACTED]
Cell: [REDACTED]

Manure Supply Agreement

This is to confirm that Kolk Farms Ltd– the “Seller” has entered into a feedlot manure supply agreement with Jordan Kolk, the “Buyer”.

The buyer agrees to take an average of +-5000mt of Feedlot Manure from Kolk Farms Ltd annually for the next 10 years. Manure will be applied on the cropland described in the table below.

Owner	Legal land description	Acres	Irrigated/Dryland
Jordan Kolk	SW 14-11-20 W4	155	Irrigated
Jordan Kolk	NW 14-11-20 W4	155	Irrigated

Signed at Iron Springs on this 12 day of February, 2021

Seller Leighton Kolk Signature [REDACTED]

Buyer Jordan Kolk Signature [REDACTED]



P.O. Box 130
Iron Springs, AB T0K 1G0
Business: (403) 738-4596

E-mail:

Office:
Fax:
Cell:

Manure Supply Agreement

This is to confirm that Kolk Farms Ltd – the “Seller” has entered into a feedlot manure supply agreement with Delbert Vossebelt, the “Buyer”.

The buyer agrees to take an average of +-4000mt of Feedlot Manure from Kolk Farms Ltd annually for the next 10 years. Manure will be applied on the cropland described in the table below.

Owner	Legal land description	Acres	Irrigated/Dryland
Delbert Vossebelt	SW 11-11-20 W4	155	Irrigated
Delbert Vossebelt	NW 11-11-20 W4	155	Irrigated

Signed at Chin , Alberta on this 12 day of February, 2025

Seller Jordan Kolk Signature

Signed by:

Buyer Delbert Vossebelt Signature

DocuSigned by:



2821 - 18th Avenue North Lethbridge, AB T1H 6T5
Phone: (403)327-3302 Fax: (403)320-2457

WATER AGREEMENT INVOICE

May 31, 2024

KOLK FARMS LTD.
BOX 130
IRON SPRINGS, AB T0K 1G0

Invoice No. : 2024C120110340SW

ACCOUNT #		CUSTOMER NUMBER				
		LEGAL DESCRIPTION				
Pressure	Irrig Unit	Range	Township	Section	Parcel	Quarter
		20	11	03	40	SW
Land Location: SW 03-11-20-4						

Total Acre Feet: 116.0

File No.: 22877

AGREEMENT	QUANTITY	UNIT	RATE	AMOUNT
Water Conveyance - Type 1	116.0	ACRE FEET	[REDACTED]	[REDACTED]

PLEASE PAY ON INVOICE

2024 WATER SEASON

Subtotal Before Taxes

GST #: R124072513

GST

Total

Credit

Amount Due Dec 31, 2024

Assessments not paid before the **1st of January** following the year in which they are levied are subject to a **penalty of 8%** on that date and additional **penalties of 8%** on the amount unpaid shall be added thereto on the **1st day of every July and January** thereafter.

All Water Agreements plus Arrears must be paid by February 28 of the following year, otherwise the Agreement will be cancelled and a reinstatement fee will be assessed.

Important Notice: Irrigation District Act Section 167 (1)(e)

This is to provide you notice that the fee(s) assessed herein are in accordance with District By-Laws. You have the right to appeal the By-Laws by submitting a written notice containing the reason for the appeal to Council at Alberta Agriculture and Irrigation, Irrigation Secretariat, Room 319, Provincial Building, 200 - 5 Avenue South, Lethbridge, AB, T1J4L1, received within 30 days of the invoice date listed above.

Mailed by:

KOLK FARMS LTD.
BOX 130
IRON SPRINGS, AB T0K 1G0

Payment Slip

Please return this slip with your payment; cheques can be made payable to **Lethbridge Northern Irrigation District**.

Customer No. [REDACTED]

Invoice Date: May 31, 2024

Amount Due
Dec 31, 2024



LETHBRIDGE NORTHERN IRRIGATION DISTRICT
2821 - 18th Avenue North
Lethbridge, AB T1H 6T5

Amount Paid \$

Payment Options are as follows: Cash, Cheque, E-Transfer to ar@lnid.ca or Online Banking (Account No 04740)



2821 - 18th Avenue North Lethbridge, AB T1H 6T5
Phone: (403)327-3302 Fax: (403)320-2457

WATER AGREEMENT INVOICE

May 31, 2024

KOLK FARMS LTD.
BOX 130
IRON SPRINGS, AB T0K 1G0

Invoice No. : 2024C320110341SW

ACCOUNT #		CUSTOMER NUMBER					
[REDACTED]		[REDACTED]					
LEGAL DESCRIPTION							
Pressure	Irrig Unit	Range	Township	Section	Parcel	Quarter	
		20	11	03	41	SW	
Land Location: SW 03-11-20-4							

Total Acre Feet: 13.0

AGREEMENT	QUANTITY	UNIT	RATE	AMOUNT
Water Conveyance - Type 3	1.0	3 ACRE FEET		
Water Conveyance - Type 3	10.0	ACRE FEET		

FLAT RATE FOR FIRST 3 ACRE FEET

Subtotal Before Taxes

GST #: R124072513

GST

PLEASE PAY ON INVOICE

Total

2024 WATER SEASON

Credit

Amount Due Dec 31, 2024

Assessments not paid before the **1st of January** following the year in which they are levied are subject to a **penalty of 8%** on that date and additional **penalties of 8%** on the amount unpaid shall be added thereto on the **1st day of every July and January** thereafter.

All Water Agreements plus Arrears must be paid by February 28 of the following year, otherwise the Agreement will be cancelled and a reinstatement fee will be assessed.

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Mailed by:

KOLK FARMS LTD.
BOX 130
IRON SPRINGS, AB T0K 1G0

Payment Slip

Please return this slip with your payment; cheques can be made payable to **Lethbridge Northern Irrigation District**.

Customer No. [REDACTED]

Amount Due
Dec 31, 2024



Invoice Date: May 31, 2024

LETHBRIDGE NORTHERN IRRIGATION DISTRICT
2821 - 18th Avenue North
Lethbridge, AB T1H 6T5

Amount Paid \$

Payment Options are as follows: Cash, Cheque, E-Transfer to ar@lnid.ca or Online Banking (Account No 04740)

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Name
Address
Legal Land
Location

MDS Spreadsheet based on 2006 AOPA Regulations

Category of Livestock	Type of Livestock	Factor A	Technology Factor	MU	LSU Factor	Number of Animals	LSU
Beef	Cows/Finishers (900+ lbs)	0.700	0.700	0.910	0.446	15,000	6,688.5
	Feeders (450 - 900 lbs)	0.700	0.700	0.500	0.245	-	-
	Feeder Calves (<550 lbs)	0.700	0.700	0.275	0.135	-	-
	Other	-	-	-	-	-	-
Dairy (*count lactating cows only)	*Free Stall - Lactating Cows with all associated dries, heifers, and calves	0.800	1.100	2.000	1.760	-	-
	*Free Stall - Lactating cows with Dry Cows only	0.800	1.100	1.640	1.443	-	-
	Free Stall - Lactating Cows only	0.800	1.100	1.400	1.232	-	-
	Tie Stall - Lactating cows only	0.800	1.000	1.400	1.120	-	-
	Loose Housing - Lactating cows only	0.800	1.000	1.400	1.120	-	-
	Dry Cow (Solid manure)	0.800	0.700	1.000	0.560	-	-
	Dry Cow (Liquid manure)	-	-	-	-	-	-
	Replacements - Bred Heifers (Breeding to Calving)	0.800	0.700	0.875	0.490	-	-
	Replacements - Growing Heifers (350 lbs to breeding)	0.800	0.700	0.525	0.294	-	-
	Calves (< 350 lbs)	0.800	0.700	0.200	0.112	-	-
	Other	-	-	-	-	-	-
	Other	-	-	-	-	-	-
Swine Liquid (*count sows only)	Farrow to finish *	2.000	1.100	1.780	3.916	-	-
	Farrow to wean *	2.000	1.100	0.670	1.474	-	-
	Farrow only *	2.000	1.100	0.530	1.166	-	-
	Feeders/Boars	2.000	1.100	0.200	0.440	-	-
	Growers/Roasters	2.000	1.100	0.118	0.260	-	-
	Weaners	2.000	1.100	0.055	0.121	-	-
	Other	-	-	-	-	-	-
Swine Solid (*Count sows only)	Farrow to finish *	2.000	0.800	1.780	2.848	-	-
	Farrow to wean *	2.000	0.800	0.670	1.072	-	-
	Farrow only *	2.000	0.800	0.530	0.848	-	-
	Feeders/Boars	2.000	0.800	0.200	0.320	-	-
	Growers/Roasters	2.000	0.800	0.118	0.189	-	-
	Weaners	2.000	0.800	0.055	0.088	-	-
	Other	-	-	-	-	-	-
Poultry	Chicken - Breeders - Solid	1.000	0.700	0.010	0.007	-	-
	Chicken - Layers - Liquid (includes associated pullets)	2.000	1.100	0.008	0.018	-	-
	Chicken - Layers - (Belt Cage)	2.000	0.700	0.008	0.011	-	-
	Chicken - Layers - (Deep Pit)	2.000	0.700	0.008	0.011	-	-
	Chicken - Pullets/Broilers	1.000	0.700	0.002	0.001	-	-
	Turkey - Toms/Breeders	1.000	0.700	0.020	0.014	-	-
	Turkey - Hens (light)	1.000	0.700	0.013	0.009	-	-
	Turkey - Broilers	1.000	0.700	0.010	0.007	-	-
	Ducks	1.000	0.700	0.010	0.007	-	-
	Geese	1.000	0.700	0.020	0.014	-	-
	Other	-	-	-	-	-	-
Horses	PMU	0.650	0.700	1.000	0.455	-	-
	Feeders > 750 lbs	0.650	0.700	1.000	0.455	-	-
	Foals < 750 lbs	0.650	0.700	0.300	0.137	-	-
	Mules	0.600	0.700	1.000	0.420	-	-
	Donkeys	0.600	0.700	0.670	0.281	-	-
	Other	-	-	-	-	-	-
Sheep	Ewes/Rams	0.600	0.700	0.200	0.084	-	-
	Ewes with lambs	0.600	0.700	0.250	0.105	-	-
	Lambs	0.600	0.700	0.050	0.021	-	-
	Feeders	0.600	0.700	0.100	0.042	-	-
	Other	-	-	-	-	-	-
Goats	Meat/Milk (per Ewe)	0.700	0.700	0.170	0.083	-	-
	Nannies/Billies	0.700	0.700	0.140	0.069	-	-
	Feeders	0.700	0.700	0.077	0.038	-	-
	Other	-	-	-	-	-	-
Bison	Bison	0.600	0.700	1.000	0.420	-	-
	Other	-	-	-	-	-	-
Cervid	Elk	0.600	0.700	0.600	0.252	-	-
	Deer	0.600	0.700	0.200	0.084	-	-
	Other	-	-	-	-	-	-
Wild Boar	Feeders	2.000	0.800	0.140	0.224	-	-
	Sow (farrowing)	2.000	0.800	0.371	0.594	-	-
	Other	-	-	-	-	-	-

Total 6,688.5

For New Operations

Dispersion Factor 1

Category	Odour Objective	Distance	
		Feet	Metres
1	41.04	3,353	1,022
2	54.72	4,471	1,363
3	68.4	5,588	1,703
4	109.44	8,941	2,725

For Expanding Operations

Dispersion Factor 1
Expansion Factor 0.77

Category	Odour Objective	Distance	
		Feet	Metres
1	41.04	2,582	787
2	54.72	3,442	1,049
3	68.40	4,303	1,312
4	109.44	6,885	2,099

Name 0
Address 0
Legal Land
Location 0

Landbase Requirements (hectares) based on 2006 AOPA requirements

Category of Livestock	Type of Livestock	Number of Animals	Dark Brown & Brown (ha)	Grey Wooded (ha)	Black (ha)	Irrigated (ha)
Beef	Cows/Finishers (900+ lbs)	15000	1875	1560	1170	930
	Feeders (450 - 900 lbs)	0	0	0	0	0
	Feeder Calves (<550 lbs)	0	-	-	-	-
	Other	0				
Dairy (*count lactating cows only)	*Free Stall - Lactating Cows with all associated dries, heifers, and calves	0	0	0	0	0
	*Free Stall - Lactating cows with Dry Cows only	0	-	-	-	-
	Free Stall - Lactating Cows only	0	-	-	-	-
	Tie Stall - Lactating cows only	0	-	-	0	0
	Loose Housing - Lactating cows only	0	-	-	-	-
	Dry Cow (Solid manure)	0	-	-	-	-
	Dry Cow (Liquid manure)	0	-	-	-	-
	Replacements - Bred Heifers (Breeding to Calving)	0	-	-	-	-
	Replacements - Growing Heifers (350 lbs to breeding)	0	-	-	-	-
	Calves (< 350 lbs)	0	-	-	-	-
	Other	0				
	Other	0				
Swine Liquid (*count sows only)	Farrow to finish *	0	-	0	-	-
	Farrow to wean *	0	-	-	-	-
	Farrow only *	0	-	-	-	-
	Feeders/Boars	0	-	0	0	0
	Growers/Roasters	0	-	-	-	-
	Weaners	0	-	-	-	-
	Other	0				
Swine Solid (*Count sows only)	Farrow to finish *	0	-	-	-	-
	Farrow to wean *	0	-	-	-	-
	Farrow only *	0	-	-	-	-
	Feeders/Boars	0	-	-	-	-
	Growers/Roasters	0	-	-	-	-
	Weaners	0	-	-	-	-
	Other	0				
Poultry	Chicken - Breeders - Solid	0	-	-	-	-
	Chicken - Layers - Liquid (includes associated pullets)	0	-	0	0	0
	Chicken - Layers - (Belt Cage)	0	-	-	-	-
	Chicken - Layers - (Deep Pit)	0	-	-	-	-
	Chicken - Pullets/Broilers	0	-	0	0	0
	Turkey - Toms/Breeders	0	0	0	0	0
	Turkey - Hens (light)	0	-	-	-	-
	Turkey - Broilers	0	-	-	-	-
	Ducks	0	0	0	0	0
	Geese	0	0	0	0	0
	Other	0				
	Other	0				
Horses	PMU	0	0	0	0	0
	Feeders > 750 lbs	0	-	0	-	-
	Foals < 750 lbs	0	-	-	-	-
	Mules	0	-	-	-	-
	Donkeys	0	-	-	-	-
	Other	0				
Sheep	Ewes/Rams	0	-	0	0	0
	Ewes with lambs	0	-	-	-	-
	Lambs	0	-	-	-	-
	Feeders	0	-	-	-	-
	Other	0				
Goats	Meat/Milk (per Ewe)	0	0	0	0	0
	Nannies/Billies	0	-	-	-	-
	Feeders	0	-	-	-	-
	Other	0				
Bison	Bison	0	0	0	0	0
	Other	0				
Cervid	Elk	0	0	0	0	0
	Deer	0	0	0	0	0
	Other	0				
Wild Boar	Feeders	0	-	0	0	0
	Sow (farrowing)	0	-	-	-	-
	Other	0				
Total Hectares			1875.0	1560.0	1170.0	930.0
Total Acres			4633.1	3854.8	2891.1	2298.0

Name 0
Address 0
Legal Land
Location 0

Animal Units to Determine Affected Party Radius

Category of Livestock	Type of Livestock	Number of Animals	Animal Unit Factor	Animal Units
Beef	Cows/Finishers (900+ lbs)	15,000	1.1	13636.4
	Feeders (450 - 900 lbs)	-	2	0.0
	Feeder Calves (<550 lbs)	-	3.6	0.0
	Other	-	-	0.0
Dairy (*count lactating cows only)	*Free Stall – Lactating Cows with all associated dries, heifers, and calves	-	0.5	0.0
	*Free Stall – Lactating cows with Dry Cows only	-	0.6	0.0
	Free Stall – Lactating Cows only	-	0.7	0.0
	Tie Stall – Lactating cows only	-	0.5	0.0
	Loose Housing – Lactating cows only	-	0.5	0.0
	Dry Cow (Solid manure)	-	1	0.0
	Dry Cow (Liquid manure)	-	1	0.0
	Replacements – Bred Heifers (Breeding to Calving)	-	1.15	0.0
	Replacements – Growing Heifers (350 lbs to breeding)	-	1.9	0.0
	Calves (< 350 lbs)	-	5	0.0
	Other	-	-	0.0
	Other	-	-	0.0
	Other	-	-	0.0
Swine Liquid (*count sows only)	Farrow to finish *	-	0.56	0.0
	Farrow to wean *	-	1.5	0.0
	Farrow only *	-	1.9	0.0
	Feeders/Boars	-	5	0.0
	Growers/Roasters	-	8.5	0.0
	Weaners	-	18.2	0.0
	Other	-	-	0.0
Swine Solid (*Count sows only)	Farrow to finish *	-	0.56	0.0
	Farrow to wean *	-	1.5	0.0
	Farrow only *	-	1.9	0.0
	Feeders/Boars	-	5	0.0
	Growers/Roasters	-	8.5	0.0
	Weaners	-	18.2	0.0
	Other	-	-	0.0
Poultry	Chicken - Breeders - Solid	-	100	0.0
	Chicken - Layers - Liquid (includes associated pullets)	-	125	0.0
	Chicken - Layers - (Belt Cage)	-	150	0.0
	Chicken - Layers - (Deep Pit)	-	150	0.0
	Chicken - Pullets/Broilers	-	500	0.0
	Turkey - Toms/Breeders	-	50	0.0
	Turkey - Hens (light)	-	75	0.0
	Turkey - Broilers	-	100	0.0
	Ducks	-	100	0.0
	Geese	-	50	0.0
	Other	-	-	0.0
	Other	-	-	0.0
Horses	PMU	-	1	0.0
	Feeders > 750 lbs	-	1	0.0
	Foals < 750 lbs	-	3.3	0.0
	Mules	-	1	0.0
	Donkeys	-	1.5	0.0
	Other	-	-	0.0
Sheep	Ewes/Rams	-	5	0.0
	Ewes with lambs	-	4	0.0
	Lambs	-	21	0.0
	Feeders	-	10	0.0
	Other	-	-	0.0
Goats	Meat/Milk (per Ewe)	-	6	0.0
	Nannies/Billies	-	10	0.0
	Feeders	-	13	0.0
	Other	-	-	0.0
Bison	Bison	-	1	0.0
	Other	-	-	0.0
Cervid	Elk	-	1.7	0.0
	Deer	-	5	0.0
	Other	-	-	0.0
Wild Boar	Feeders	-	6	0.0
	Sow (farrowing)	-	1.25	0.0
	Other	-	-	0.0

Total Animal Units 13636.4

Affected Party Radius 3 miles

Affected Party radius is measured from the boundary of the parcel of land where the cfo is located to land that is within the affected party radius.

Part 2 – Technical Requirements

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 - Compacted soil liner

(complete a copy of this section for **EACH** barn, feedlot, and storage facility for solid manure, composting materials, or compost with a compacted soil liner)

Facility description / name (as indicated on site plan)

1. K3 Pens

2.

Manure storage capacity

	Length (m)	Width (m)	Depth below grade to the bottom of the liner (m)	NRCB USE ONLY Estimated storage capacity (m ³)
1.	430	230	0	
2.				
TOTAL CAPACITY				

☐ I plan to use a short-term solid manure storage (STMS) as part of my manure storage and handling plan for this CFO. (The AOPA requirements for STMS are set out in the NRCB [Short-Term Solid Manure Storage Requirements Fact Sheet](#).)

Surface water control systems

Describe the run-on and runoff control system designed slope to catchbasin, berm perimeter to control run on. The current east catch basin will be extended to contain 26024m³ minimum.

Liner protection

Describe how the physical integrity of the liner will be maintained
Continuous observation and RCC

NRCB USE ONLY

Requirements met: ☐ YES ☐ NO

Part 2 – Technical Requirements

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 - Compacted soil liner (cont.)

Compacted soil liner details

Thickness of compacted liner	<div>0.5m (m)</div>			Provide compacted liner details (as required) imported clay
Soil texture	<div>0 % sand</div>	<div>0 % silt</div>	<div>0 % clay</div>	
Atterberg limits	<div>Plastic limit</div> <div>0</div>	<div>Liquid limit</div> <div>0</div>	<div>Plasticity index</div> <div>0</div>	
Hydraulic conductivity	<div>Hydraulic conductivity (cm/s)</div> <div>4.2E -08 cm/s</div>			
	<div>Describe test standard used</div> <div>Permeability Test</div>			

Additional information (attach copies of soil test reports)

NRCB USE ONLY

Requirements met: ☐ YES ☐ NO
 Condition required: ☐ YES ☐ NO
 Report attached: ☐ YES ☐ NO

NRCB USE ONLY

Nine month manure storage volume requirements met ☐ YES ☐ YES With STMS ☐ NO
 Depth to water table: _____ Requirements met: ☐ YES ☐ NO
 Depth to uppermost groundwater resource: _____ Requirements met: ☐ YES ☐ NO
 ERST completed: ☐ see ERST page for details

Surface water control systems

Requirements met: ☐ YES ☐ NO Details/comments:

Compacted soil liner details

Hydraulic conductivity after adjustment: _____

Liner specification comments (e.g. compaction, moisture content, thickness):

Leakage detection system required: ☐ YES ☐ NO If yes, please explain why.



Down To Earth Labs Inc.

The Science of Higher Yields

J. Lobbezoo Engineering +
Consulting Services
Box 96
Monarch, Alberta T0L 1M0

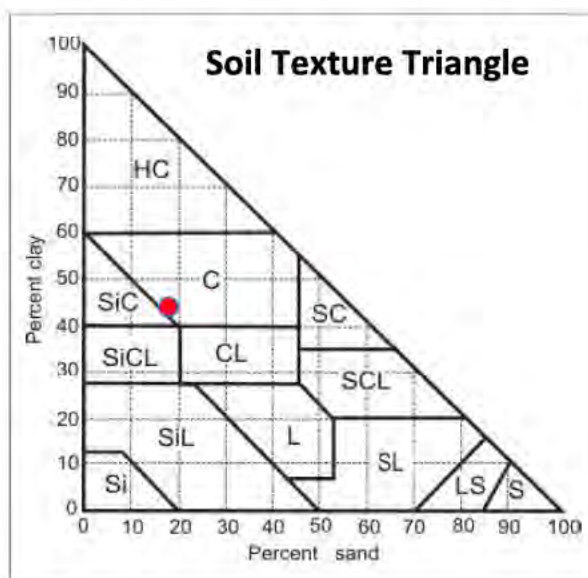
Report #: 208008
Report Date: 2025-06-19
Received: 2025-06-17
Completed: 2025-06-19
Test Done: ST

Project :
Kolk Farms
PO:

3510 6th Ave North
Lethbridge, AB T1H 5C3
403-328-1133
www.downtoearthlabs.com
info@downtoearthlabs.com

Sample ID: 250617O001
Cust. Sample ID: Coaldale

Analyte	Units	
Sand	%	18.0
Silt	%	38.0
Clay	%	44.0
Soil Texture	-	Clay



Raygan Boyce - Chemist



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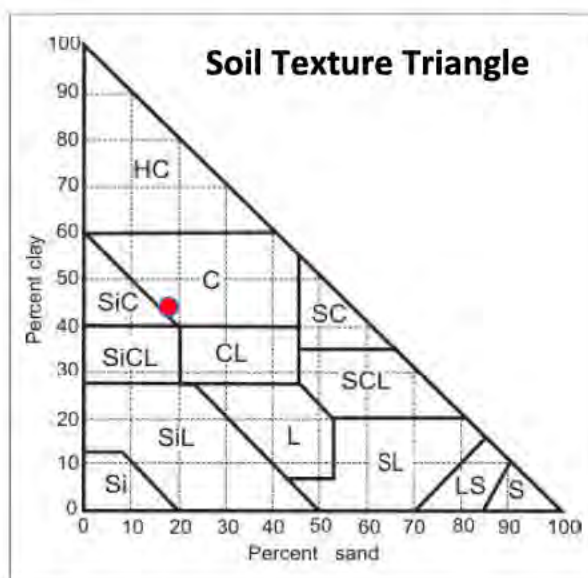
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Analyte	Units	
Sand	%	18.0
Silt	%	38.0
Clay	%	44.0
Soil Texture	-	Clay



Raygan Boyce - Chemist

---JLECS---

[illegible]

LIQUID MANURE STORAGE: Synthetic liner

(complete a copy of this section for **EACH** proposed liquid manure storage facility with a synthetic liner)

Facility description / name (as indicated on site plan)

1. East Catch basin expansion

2.

Manure storage capacity (use one row in the table for **EACH** cell of the synthetic lined storage, attach additional pages if you require more rows)

	Length (m)	Width (m)	Total depth (m)	Depth below ground level (m)	Slope run:rise			NRCB USE ONLY	
					Inside end walls	Inside side walls	Outside walls	Calculated storage capacity (excl. 0.5 m freeboard) (m ³)	Filled in lower ¼? Y/N
1.	73	60	2	2					
2.									
TOTAL CAPACITY									

Surface water control systems

Describe the run-on and runoff control system
berms and surrounding grading to prevent run off run on.

Sealing

Describe sealing practices for piping, etc. that penetrates the liner

Any piping into the liner is welded

NRCB USE ONLY

Requirements met: ☐ YES ☐ NO

Liner protection

Describe how the inside walls, bottom and outside walls are protected from erosion

Describe how the physical integrity of the liner will be maintained from other damage

NRCB USE ONLY

Requirements met: ☐ YES ☐ NO

LIQUID MANURE STORAGE: Synthetic liner (cont.)

Synthetic liner details

Provide synthetic liner material details
60 mil dpe

Additional information *(attach copies of design/engineering reports)*

NRCB USE ONLY

Requirements met: ☐ YES ☐ NO

Condition required: ☐ YES ☐ NO

Report attached: ☐ YES ☐ NO

NRCB USE ONLY

Liquid manure storage volume calculator attached: ☐ YES ☐ NO

Depth to water table: _____

Depth to uppermost groundwater resource: _____

Requirements met: ☐ YES ☐ NO

Requirements met: ☐ YES ☐ NO

ERST completed: ☐ see ERST page for details

Surface water control systems

Requirements met: ☐ YES ☐ NO

Details/comments:

Synthetic liner requirements

Leakage detection system required: ☐ YES ☐ NO

If yes, please explain why.

Construction plans approved by professional engineer:

☐ YES ☐ NO

Will liner be installed by manufacturer approved contractor and qualified third party?:

☐ YES ☐ NO

Preparation of liner bed (comments):

Condition required: ☐ YES ☐ NO