

Technical Document LA24012

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 <input type="checkbox"/> Amendment | LA24012 | E½ 2-17-1 W4M |

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.

| | |
|-------------------------------------|-------------------|
| <u>March 20 2024</u> | |
| Date of signing | Signature |
| <u>Borderland Farming or Colony</u> | <u>Ben P Entz</u> |
| Corporate name (if applicable) | 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) | |
|---|--|--------------------------|
| Lager Barn | 114.6mx36.6m | 376' X 120' |
| Pullet Barn | 71.6mx24.4m | 235 305 X 80' |
| Lager Barn Manure Room | 18.6mx9.1m | 60' X 28' |
| Pullet Barn Manure Room | 18.6mx9.1m | 60 X 25' |
| AO comment: the manure storage rooms are attached to the barns | | |

Existing facilities: list ALL existing confined feeding operation facilities and their dimensions

| Existing facilities | Dimensions (m) (length, width, and depth) | NRCB USE ONLY |
|---------------------|--|---------------|
| New CFO | | |
| | | |
| | | |

| |
|----------------------|
| NRCB USE ONLY |
|----------------------|

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)

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

Construction completion date for proposed facilities Dec 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).

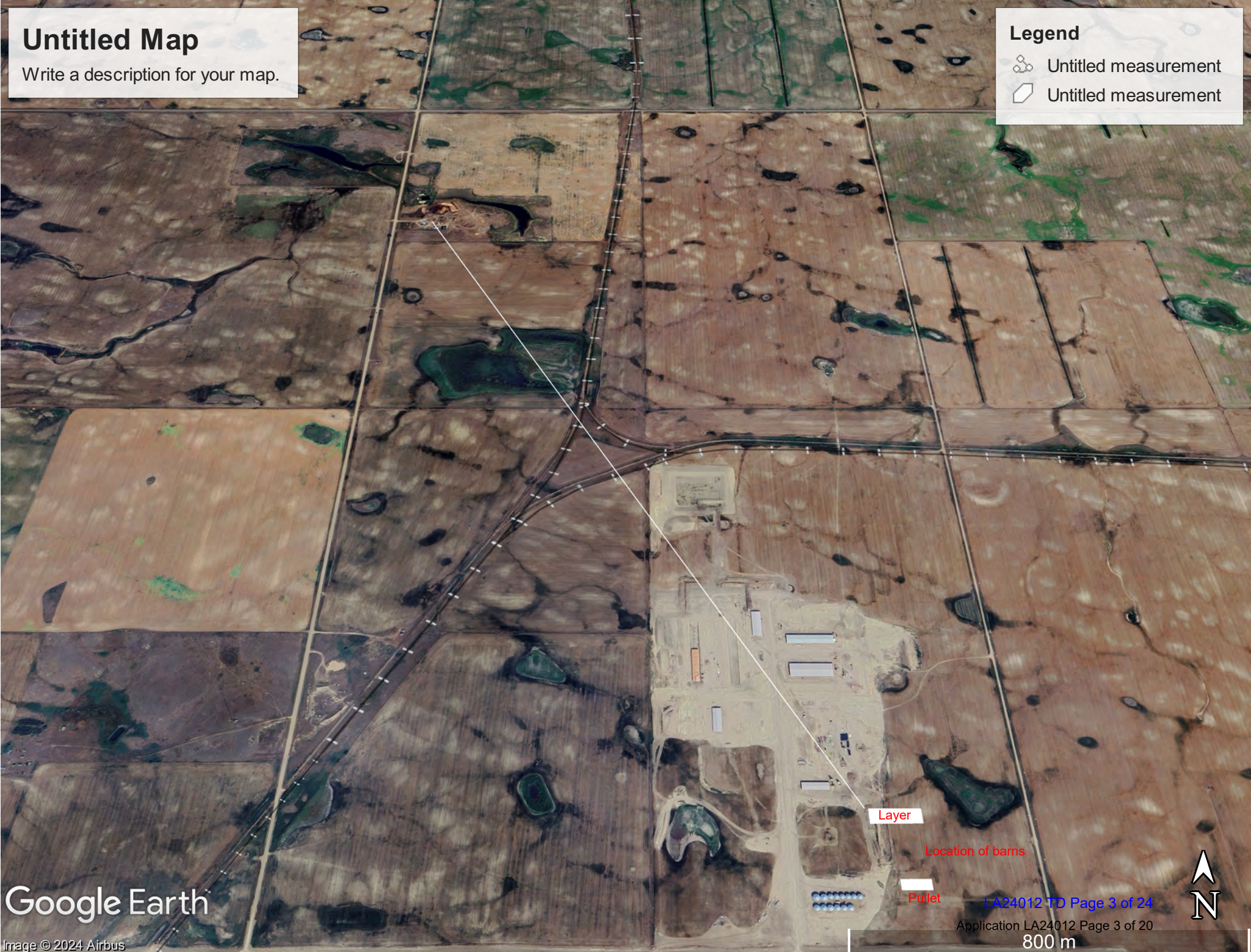
| Livestock category and type (Available in the Schedule 2 of the Part 2 Matters Regulation) | Permitted number | Proposed increase or decrease in number (if applicable) | Total |
|---|------------------|---|-------|
| | | | |
| | | | |
| | | | |
| AO comment: The application is for a new 40,000 chicken layer + 40,000 chicken pullet operation | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Untitled Map

Write a description for your map.

Legend

- Untitled measurement
- Untitled measurement



Layer

Location of barns

Pullet

LA24012 TD Page 3 of 24

Application LA24012 Page 3 of 20

800 m

Google Earth

Image © 2024 Airbus



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) application submitted (AO comment: on file)

Signed this 20 day of March, 2024.

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 ____ day of _____, 20____.

Signature of Applicant or Agent

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)

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

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)

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: _____

Proposed 1: Layer Barn

Proposed 2: Pullet Barn

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 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 checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption | Not located in flood plain |
| | Surface water information | | | | | | |
| | How many springs are within 100 m of the manure storage facility or manure collection area? | | 0 | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption | None observed during site visit or recorded in EPA database |
| | How many water wells are within 100 m of the manure storage facility or manure collection area? | | 0 | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption | None observed during site visit or recorded in EPA database 410 m to well 1270541, 417 to well 1270542 |
| | What is the shortest distance from the manure collection or storage facility to a surface water body? (e.g., lake, creek, slough, seasonal) | | 55 m | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption | 55 m to slough (not a common body of water) |
| Groundwater information | What is the depth to the water table? | | >1m | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption | confirmed (other drilling on site) |
| | What is the depth to the groundwater resource/aquifer you draw water from? | | > 100m | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption | 177 m (ID 1270541) 185 m (ID 1270542) |

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

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

WATER WELL AND SURFACE WATER INFORMATION

Well IDs: Well IDs 1270542 and 1270541

Surface water related concerns from directly affected parties or referral agencies: YES NO

Groundwater related concerns from directly affected parties or referral agencies: YES NO

Water wells N/A

If applicable, exemption for 100 m distance requirements applied: YES NO Condition required: YES NO

Surface water N/A

If applicable, exemption for 30 m distance requirements applied: YES NO Condition required: YES NO

Water Well Exemption Screening Tool N/A

| Water Well ID | Preliminary Screening Score | Secondary Screening Score | Facility |
|---------------|-----------------------------|---------------------------|----------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Groundwater or surface water related comments:

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
ENVIRONMENTAL RISK SCREENING INFORMATION

ERST for proposed facilities The facilities meet all of AOPA groundwater and surface water protection requirements. Presumed to pose a low risk to groundwater and surface water

| Facility | Groundwater score | Surface water score | File number |
|----------|-------------------|---------------------|-------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

ERST for existing facilities NA

| Facility | Groundwater score | Surface water score | File number |
|----------|-------------------|---------------------|-------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

ERST related comments:



Water Well Drilling Report

[View in Imperial](#) [Export to Excel](#)

GIC Well ID 1270541
GoA Well Tag No. A4903
Drilling Company Well ID Site 3 Hole 1A PW 1
Date Report Received 2022/12/02

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 | | | | | | | | | | Measurement in Metric | |
|--|-------------------|-------------------------------|------------|------------|--|------------|----------------------------|-------------|-------------------------------|-------------------------------|--|
| Owner Name BORDERLAND FARMING CO LTD | | Address P.O. BOX 69 | | | Town HILDA | | Province ALBERTA | | Country CANADA | Postal Code TOJ 1R0 | |
| Location | 1/4 or LSD | SEC | TWP | RGE | W of MER | Lot | Block | Plan | Additional Description | | |
| | 2 | 2 | 17 | 1 | 4 | | | | | | |
| Measured from Boundary of | | | | | GPS Coordinates in Decimal Degrees (NAD 83) | | | | | | |
| _____ m from _____ | | | | | Latitude <u>50.400245</u> Longitude <u>-110.038278</u> | | | | | Elevation <u>819.91 m</u> | |
| _____ m from _____ | | | | | How Location Obtained _____ | | | | | How Elevation Obtained _____ | |
| | | | | | Phone _____ | | | | | Other _____ | |

| Drilling Information | |
|---|---------------------------------|
| Method of Drilling Rotary - Mud | Type of Work New Well |
| Proposed Well Use Domestic | |

| Formation Log | | | Measurement in Metric |
|-----------------------------|---------------|--------------------------|-----------------------|
| Depth from ground level (m) | Water Bearing | Lithology Description | |
| 0.61 | | Topsoil | |
| 1.83 | | Dark Gray Till | |
| 4.88 | | Brown Gravelly Rocks | |
| 6.10 | | Brown Till | |
| 6.71 | | Gray Gravelly Till | |
| 14.02 | | Interbedded Sand | |
| 18.90 | | Gray Gravelly Till | |
| 21.64 | | Gray Unconsolidated Till | |
| 24.99 | | Gray Gravelly Till | |
| 28.04 | | Gray Silty Till | |
| 30.78 | | Gray Firm Till | |
| 42.67 | | Brown Silty Till | |
| 45.11 | | Brown Firm Till | |
| 49.99 | | Gravelly Till | |
| 51.21 | | Brown Till | |
| 67.67 | | Brown Silty Till | |
| 72.54 | | Gray Oxidized Till | |
| 78.03 | | Light Brown Sandy Till | |
| 78.64 | | Brown Firm Till | |
| 85.95 | | Oxidized Till | |
| 94.49 | | Gray Unknown Clay | |
| 104.85 | | Gray Silty Shale | |
| 105.16 | | Coal | |
| 108.51 | | Brown Shale | |
| 112.78 | | Siltstone | |
| 117.04 | | Mixed Shale | |
| 125.88 | | Gray Siltstone | |
| 127.41 | | Sandstone | |
| 138.99 | | Firm Shale | |
| 142.65 | | Gray Siltstone | |
| 143.87 | | Hard Ledges | |
| 145.69 | | Gray Siltstone | |

| Yield Test Summary | | | Measurement in Metric |
|------------------------------------|----------------------------|------------------------|-----------------------|
| Recommended Pump Rate _____ | | | L/min |
| Test Date | Water Removal Rate (L/min) | Static Water Level (m) | |
| | | | |

| Well Completion | | | | Measurement in Metric |
|--|----------------------------|----------------------------------|------------------|---------------------------|
| Total Depth Drilled | Finished Well Depth | Start Date | End Date | |
| 204.60 m | 188.37 m | 2021/09/08 | 2021/09/17 | |
| Borehole | | | | |
| Diameter (cm) | From (m) | To (m) | | |
| 22.23 | 0.00 | 174.04 | | |
| 16.83 | 174.04 | 175.56 | | |
| 13.02 | 175.56 | 204.60 | | |
| Surface Casing (if applicable) | | Well Casing/Liner | | |
| Plastic | | Plastic | | |
| Size OD : <u>15.24 cm</u> | | Size OD : <u>7.62 cm</u> | | |
| Wall Thickness : <u>1.008 cm</u> | | Wall Thickness : <u>0.859 cm</u> | | |
| Bottom at : <u>175.56 m</u> | | Top at : <u>165.54 m</u> | | |
| | | Bottom at : <u>177.22 m</u> | | |
| Perforations | | | | |
| From (m) | To (m) | Diameter or Slot Width (cm) | Slot Length (cm) | Hole or Slot Interval(cm) |
| | | | | |
| Perforated by | | | | |
| Annular Seal Cement/Bentonite Slurry | | | | |
| Placed from <u>0.00 m</u> to <u>175.56 m</u> | | | | |
| Amount <u>953.00 Gallons</u> | | | | |
| Other Seals | | | | |
| Type | | At (m) | | |
| | | | | |
| Screen Type Stainless Steel | | | | |
| Size OD : <u>8.89 cm</u> | | | | |
| From (m) | To (m) | Slot Size (cm) | | |
| 177.22 | 188.37 | 0.038 | | |
| Attachment <u>Attached To Risers</u> | | | | |
| Top Fittings <u>Packer</u> | | Bottom Fittings <u>Washdown</u> | | |
| Pack | | | | |
| Type <u>Frac Sand</u> | | Grain Size <u>.55</u> | | |
| Amount <u>73.00 Bags</u> | | | | |

| Contractor Certification | | | |
|---|--|---|--|
| Name of Journeyman responsible for drilling/construction of well CRAIG LAVOIE | | Certification No 187897A | |
| Company Name ELK POINT DRILLING CORP. | | Copy of Well report provided to owner Date approval holder signed Yes 2021/09/17 | |



Water Well Drilling Report

[View in Imperial](#) [Export to Excel](#)

| | |
|--------------------------|--------------------|
| GIC Well ID | 1270542 |
| GoA Well Tag No. | A4904 |
| Drilling Company Well ID | Site 3 Hole 2 PW 2 |
| Date Report Received | 2022/12/02 |

GOWN 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.

| Well Identification and Location | | | | | | | | | | Measurement in Metric | | |
|--|-------------------|-------------------------------|------------|------------|--|------------|----------------------------|-------------|-------------------------------|-----------------------|-------------------------------|--|
| Owner Name BORDERLAND FARMING CO LTD | | Address P.O. BOX 69 | | | Town HILDA | | Province ALBERTA | | Country CANADA | | Postal Code T0J 1R0 | |
| Location | <i>1/4 or LSD</i> | <i>SEC</i> | <i>TWP</i> | <i>RGE</i> | <i>W of MER</i> | <i>Lot</i> | <i>Block</i> | <i>Plan</i> | <i>Additional Description</i> | | | |
| | 2 | 2 | 17 | 1 | 4 | | | | | | | |
| Measured from Boundary of | | | | | GPS Coordinates in Decimal Degrees (NAD 83) | | | | | | | |
| _____ m from _____ | | | | | Latitude <u>50.399089</u> Longitude <u>-110.038089</u> | | | | | Elevation _____ m | | |
| _____ m from _____ | | | | | How Location Obtained _____ | | | | | Not Obtained | | |
| Phone _____ | | | | | | | | | | | | |

| Depth from ground level (m) | Water Bearing | Lithology Description | Amount |
|-----------------------------|---------------|-----------------------|------------|
| | | | 74.00 Bags |
| 132.89 | | Gray Siltstone | |
| 142.04 | | Mixed Shale | |
| 145.69 | | Gray Firm Siltstone | |
| 147.52 | | Gray Shale | |
| 149.96 | | Gray Siltstone | |
| 151.18 | | Gray Firm Shale | |
| 154.23 | | Gray Siltstone | |
| 157.89 | | Gray Hard Shale | |
| 162.15 | | Hard Siltstone | |
| 162.76 | | Hard Ledges | |
| 164.59 | | Gray Shale | |
| 167.64 | | Gray Sandstone | |
| 168.86 | | Gray Shale | |
| 170.69 | | Hard Ledges | |
| 184.10 | | Sandstone & Shale | |
| 196.90 | | Gray Sandstone | |
| 197.21 | | Hard Ledges | |
| 201.43 | | Bluish Green Shale | |

| Contractor Certification | | | |
|---|--|---|--|
| <i>Name of Journeyman responsible for drilling/construction of well</i> CRAIG LAVOIE | | <i>Certification No</i> 187897A | |
| <i>Company Name</i> ELK POINT DRILLING CORP. | | <i>Copy of Well report provided to owner</i> Yes | <i>Date approval holder signed</i> 2022/01/16 |



Water Well Drilling Report

[View in Imperial](#) [Export to Excel](#)

GIC Well ID 1270542
GoA Well Tag No. A4904
Drilling Company Well ID Site 3 Hole 2 PW 2
Date Report Received 2022/12/02

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 | | | | | | | | | | Measurement in Metric | | |
|--|-------------------|-------------------------------|------------|------------|--|------------|----------------------------|-------------|-------------------------------|------------------------------|-------------------------------|--|
| Owner Name BORDERLAND FARMING CO LTD | | Address P.O. BOX 69 | | | Town HILDA | | Province ALBERTA | | Country CANADA | | Postal Code T0J 1R0 | |
| Location | 1/4 or LSD | SEC | TWP | RGE | W of MER | Lot | Block | Plan | Additional Description | | | |
| | 2 | 2 | 17 | 1 | 4 | | | | | | | |
| Measured from Boundary of | | | | | GPS Coordinates in Decimal Degrees (NAD 83) | | | | | | | |
| _____ m from _____ | | | | | Latitude <u>50.399089</u> Longitude <u>-110.038089</u> | | | | | Elevation _____ m | | |
| _____ m from _____ | | | | | How Location Obtained _____ | | | | | How Elevation Obtained _____ | | |
| | | | | | Phone _____ | | | | | Not Obtained | | |

| Drilling Information | |
|---|---------------------------------|
| Method of Drilling Rotary - Mud | Type of Work New Well |
| Proposed Well Use Domestic | |

| Formation Log | | | Measurement in Metric |
|-----------------------------|---------------|--------------------------|-----------------------|
| Depth from ground level (m) | Water Bearing | Lithology Description | |
| 1.83 | | Unknown | |
| 3.05 | | Brown Till | |
| 3.35 | | Rocks | |
| 4.88 | | Brown Gravelly Till | |
| 6.10 | | Rocks | |
| 12.50 | | Dark Gray Gravelly Till | |
| 18.29 | | Gray Gravelly Till | |
| 19.51 | | Rocks | |
| 22.56 | | Gray Unconsolidated Till | |
| 36.88 | | Gray Firm Till | |
| 39.01 | | Gray Silty Till | |
| 40.23 | | Gray Firm Clay | |
| 43.89 | | Brown Silty Clay | |
| 59.13 | | Gray Silty Clay | |
| 62.79 | | Brown Silty Clay | |
| 67.06 | | Brown Firm Clay | |
| 77.42 | | Brown Silty Gravel | |
| 83.52 | | Brown Sandy Clay | |
| 84.12 | | Oxidized Sand | |
| 86.56 | | Brown Firm Unknown | |
| 92.05 | | Gray Oxidized Shale | |
| 103.63 | | Gray Shale | |
| 109.12 | | Mixed Shale | |
| 112.78 | | Clayey Sandstone | |
| 114.60 | | Mixed Shale | |
| 118.26 | | Gray Clayey Sandstone | |
| 120.09 | | Bluish Green Firm Shale | |
| 122.53 | | Brown Coal | |
| 124.97 | | Brown Cemented Shale | |
| 128.02 | | Mixed Shale | |
| 129.84 | | Gray Siltstone | |
| 131.67 | | Brown Firm Shale | |

| Yield Test Summary | | | Measurement in Metric |
|------------------------------------|----------------------------|------------------------|-----------------------|
| Recommended Pump Rate _____ | | | L/min |
| Test Date | Water Removal Rate (L/min) | Static Water Level (m) | |
| | | | |

| Well Completion | | | | Measurement in Metric |
|--|----------------------------|----------------------------------|------------------|---------------------------|
| Total Depth Drilled | Finished Well Depth | Start Date | End Date | |
| 201.43 m | 196.66 m | 2021/12/13 | 2022/01/16 | |
| Borehole | | | | |
| Diameter (cm) | From (m) | To (m) | | |
| 22.23 | 0.00 | 178.31 | | |
| 16.83 | 178.31 | 179.83 | | |
| 13.02 | 179.83 | 184.10 | | |
| 27.94 | 184.10 | 196.90 | | |
| 13.02 | 196.90 | 201.43 | | |
| Surface Casing (if applicable) | | Well Casing/Liner | | |
| Plastic | | Plastic | | |
| Size OD : <u>15.24 cm</u> | | Size OD : <u>7.62 cm</u> | | |
| Wall Thickness : <u>1.008 cm</u> | | Wall Thickness : <u>0.851 cm</u> | | |
| Bottom at : <u>179.83 m</u> | | Top at : <u>173.66 m</u> | | |
| | | Bottom at : <u>185.60 m</u> | | |
| Perforations | | | | |
| From (m) | To (m) | Diameter or Slot Width (cm) | Slot Length (cm) | Hole or Slot Interval(cm) |
| | | | | |
| Perforated by _____ | | | | |
| Annular Seal Cement/Bentonite Slurry | | | | |
| Placed from <u>0.00 m</u> to <u>179.83 m</u> | | | | |
| Amount <u>976.81 Gallons</u> | | | | |
| Other Seals | | | | |
| Type | | At (m) | | |
| | | | | |
| Screen Type Stainless Steel | | | | |
| Size OD : <u>8.89 cm</u> | | | | |
| From (m) | To (m) | Slot Size (cm) | | |
| 185.60 | 196.66 | 0.038 | | |
| Attachment <u>Attached To Riser</u> | | | | |
| Top Fittings <u>Packer</u> | | Bottom Fittings <u>Washdown</u> | | |
| Pack | | | | |
| Type <u>Frac Sand</u> | | Grain Size <u>0.55</u> | | |

| Contractor Certification | |
|--|--|
| Name of Journeyman responsible for drilling/construction of well CRAIG LAVOIE | Certification No 187897A |
| Company Name ELK POINT DRILLING CORP. | Copy of Well report provided to owner Yes |
| | Date approval holder signed 2022/01/16 |



Water Well Drilling Report

[View in Imperial](#) [Export to Excel](#)

GIC Well ID 1270542
GoA Well Tag No. A4904
Drilling Company Well ID Site 3 Hole 2 PW 2
Date Report Received 2022/12/02

GOWN 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.

| Well Identification and Location | | | | | | Measurement in Metric | |
|--|-------------------------------|----------------------|----------------------------|--------------------------|-------------------------------|-----------------------|--|
| Owner Name BORDERLAND FARMING CO LTD | Address P.O. BOX 69 | Town HILDA | Province ALBERTA | Country CANADA | Postal Code T0J 1R0 | | |

| Location | 1/4 or LSD | SEC | TWP | RGE | W of MER | Lot | Block | Plan | Additional Description |
|----------|------------|-----|-----|-----|----------|-----|-------|------|------------------------|
| | 2 | 2 | 17 | 1 | 4 | | | | |

| Measured from Boundary of | | GPS Coordinates in Decimal Degrees (NAD 83) | | Elevation |
|---------------------------|--------------------|---|------------------------------|------------------------------|
| _____ m from _____ | _____ m from _____ | Latitude <u>50.399089</u> | Longitude <u>-110.038089</u> | _____ m |
| | | How Location Obtained _____ | | How Elevation Obtained _____ |
| | | Phone _____ | | Not Obtained |

| Additional Information | | | | Measurement in Metric | |
|---|----------------------|---|---------------------------------------|-----------------------------|--|
| Distance From Top of Casing to Ground Level _____ | 60.96 cm | | | | |
| Is Artesian Flow _____ | Rate _____ L/min | Is Flow Control Installed _____ | Describe _____ | | |
| Recommended Pump Rate _____ L/min | Pump Installed _____ | Depth _____ m | | | |
| Recommended Pump Intake Depth (From TOC) _____ m | Type _____ | Make _____ | H.P. _____ | Model (Output Rating) _____ | |
| Did you Encounter Saline Water (>4000 ppm TDS) _____ | Depth _____ m | Well Disinfected Upon Completion <u>Yes</u> | | | |
| Remedial Action Taker _____ | Gas _____ | Depth _____ m | Geophysical Log Taken <u>Electric</u> | Submitted to ESRD _____ | |
| Additional Comments on Well _____ | | Sample Collected for Potability _____ | Submitted to ESRD _____ | | |
| UPDATED BOTTOM DEPTH OF FORMATION LOG, TOTAL DEPTH DRILLER, FINISHED WELL DEPTH AND ADDED DISTANCE FROM TOP OF CASING TO GROUND LEVEL AT REQUEST OF DRILLER. ALSO CONFIRMED WITH DRILLER NO YIELD TEST WAS COMPLETED AT THIS TIME 2022-12-15. | | | | | |

| Yield Test | | | Taken From Ground Level | | Measurement in Metric |
|--|--------------------------|------------------------------|-------------------------|--|-----------------------|
| Test Date _____ | Start Time _____ | Static Water Level _____ m | | | |
| Method of Water Removal | | | | | |
| Type _____ | Removal Rate _____ L/min | Depth Withdrawn From _____ m | | | |
| If water removal period was < 2 hours, explain why _____ | | | | | |

| Water Diverted for Drilling | | |
|--|----------------------------|---|
| Water Source BORDERLAND FARMING CO LTD WELL | Amount Taken 33004.63 L | Diversion Date & Time 2021/12/13 9:00 AM |

| Contractor Certification | |
|--|---|
| Name of Journeyman responsible for drilling/construction of well CRAIG LAVOIE | Certification No 187897A |
| Company Name ELK POINT DRILLING CORP. | Copy of Well report provided to owner _____ Date approval holder signed 2022/01/16 |



Water Well Drilling Report

[View in Imperial](#) [Export to Excel](#)

| | |
|--------------------------|---------------------|
| GIC Well ID | 1270541 |
| GoA Well Tag No. | A4903 |
| Drilling Company Well ID | Site 3 Hole 1A PW 1 |
| Date Report Received | 2022/12/02 |

GOWN 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.

| Well Identification and Location | | | | | | | | | | Measurement in Metric | | |
|--|-------------------|-------------------------------|------------|------------|--|------------|----------------------------|-------------|-------------------------------|-------------------------------|-------------------------------|--|
| <i>Owner Name</i> BORDERLAND FARMING CO LTD | | <i>Address</i> P.O. BOX 69 | | | <i>Town</i> HILDA | | <i>Province</i> ALBERTA | | <i>Country</i> CANADA | | <i>Postal Code</i> T0J 1R0 | |
| <i>Location</i> | <i>1/4 or LSD</i> | <i>SEC</i> | <i>TWP</i> | <i>RGE</i> | <i>W of MER</i> | <i>Lot</i> | <i>Block</i> | <i>Plan</i> | <i>Additional Description</i> | | | |
| | 2 | 2 | 17 | 1 | 4 | | | | | | | |
| <i>Measured from Boundary of</i> | | | | | <i>GPS Coordinates in Decimal Degrees (NAD 83)</i> | | | | | | | |
| _____ m from _____ | | | | | Latitude <u>50.400245</u> Longitude <u>-110.038278</u> | | | | | Elevation <u>819.91 m</u> | | |
| _____ m from _____ | | | | | <i>How Location Obtained</i> | | | | | <i>How Elevation Obtained</i> | | |
| | | | | | Phone _____ | | | | | Other _____ | | |

| Depth from ground level (m) | Water Bearing | Lithology Description |
|-----------------------------|---------------|-----------------------|
| 148.13 | | Gray Shale |
| 151.18 | | Siltstone |
| 158.50 | | Gray Siltstone |
| 159.11 | | Hard Ledges |
| 163.98 | | Siltstone |
| 168.25 | | Sandstone |
| 169.47 | | Gray Shale |
| 170.69 | | Hard Ledges |
| 172.52 | | Sandstone |
| 176.17 | | Siltstone |
| 181.66 | | Sandstone |
| 181.97 | | Shale |
| 187.76 | | Sandstone |
| 188.98 | | Gray Shale |
| 193.85 | | Sandstone |
| 196.90 | | Hard Ledges |
| 198.12 | | Cemented Sandstone |
| 199.95 | | Shale |
| 204.60 | | Sandstone |

| Contractor Certification | | | |
|---|--|---|--|
| <i>Name of Journeyman responsible for drilling/construction of well</i> CRAIG LAVOIE | | <i>Certification No</i> 187897A | |
| <i>Company Name</i> ELK POINT DRILLING CORP. | | <i>Copy of Well report provided to owner</i> Yes | <i>Date approval holder signed</i> 2021/09/17 |



Water Well Drilling Report

[View in Imperial](#) [Export to Excel](#)

| | |
|--------------------------|---------------------|
| GIC Well ID | 1270541 |
| GoA Well Tag No. | A4903 |
| Drilling Company Well ID | Site 3 Hole 1A PW 1 |
| Date Report Received | 2022/12/02 |

GOWN 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.

| Well Identification and Location | | | | | | | | | | Measurement in Metric | |
|--|-------------------|-------------------------------|------------|--|----------------------|------------|----------------------------|------------------------------|-------------------------------|-------------------------------|--|
| Owner Name BORDERLAND FARMING CO LTD | | Address P.O. BOX 69 | | | Town HILDA | | Province ALBERTA | | Country CANADA | Postal Code T0J 1R0 | |
| Location | 1/4 or LSD | SEC | TWP | RGE | W of MER | Lot | Block | Plan | Additional Description | | |
| | 2 | 2 | 17 | 1 | 4 | | | | | | |
| Measured from Boundary of | | | | GPS Coordinates in Decimal Degrees (NAD 83) | | | | | | | |
| _____ m from _____ | | | | Latitude <u>50.400245</u> Longitude <u>-110.038278</u> | | | | Elevation <u>819.91 m</u> | | | |
| _____ m from _____ | | | | How Location Obtained _____ | | | | How Elevation Obtained _____ | | | |
| | | | | Phone _____ | | | | Other _____ | | | |

| Additional Information | | | | | | | | | | Measurement in Metric |
|--|--|--|---------------------------------------|--|---------------------------------|--|---|-------------|-----------------------------|-----------------------|
| Distance From Top of Casing to Ground Level _____ | | | | | | | | | | 60.96 cm |
| Is Artesian Flow _____ | | | | | Is Flow Control Installed _____ | | | | | |
| Rate _____ L/min | | | | | Describe _____ | | | | | |
| Recommended Pump Rate _____ | | | L/min | | Pump Installed _____ | | | Depth _____ | | m |
| Recommended Pump Intake Depth (From TOC) _____ | | | m | | Type _____ | | Make _____ | H.P. _____ | Model (Output Rating) _____ | |
| Did you Encounter Saline Water (>4000 ppm TDS) _____ | | | Depth _____ | | m | | Well Disinfected Upon Completion <u>Yes</u> | | | |
| Remedial Action Taker _____ | | | Gas _____ | | Depth _____ | | m | | Geophysical Log Taken _____ | |
| | | | | | | | | | Submitted to ESRD _____ | |
| Additional Comments on Well _____ | | | Sample Collected for Potability _____ | | | | | | Submitted to ESRD _____ | |
| DRILLER CONFIRMED NO YIELD TEST AS COMPLETED AT THIS TIME. UPDATED BOTTOM OF LITHOLOGY AND TOTAL DEPTH DRILLER AND FINISHED WELL DEPTH AND ADDED DISTANCE FROM TOP OF CASING TO GROUND LEVEL 2022-12-15. | | | | | | | | | | |

| Yield Test | | | Taken From Ground Level | Measurement in Metric |
|--|------------|--------------------|-------------------------|-----------------------|
| Test Date | Start Time | Static Water Level | | |
| | | m | | |
| Method of Water Removal | | | | |
| Type _____ | | | | |
| Removal Rate _____ L/min | | | | |
| Depth Withdrawn From _____ m | | | | |
| If water removal period was < 2 hours, explain why _____ | | | | |

| Water Diverted for Drilling | | | |
|--------------------------------|--------------|---|-----------------------|
| Water Source | Amount Taken | | Diversion Date & Time |
| BORDERLAND FARMING CO LTD WELL | 33004.63 | L | 2021/09/08 9:00 AM |

| Contractor Certification | | | |
|--|--|---------------------------------------|-----------------------------|
| Name of Journeyman responsible for drilling/construction of well | | Certification No | |
| CRAIG LAVOIE | | 187897A | |
| Company Name | | Copy of Well report provided to owner | Date approval holder signed |
| ELK POINT DRILLING CORP. | | Yes | 2021/09/17 |

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 |
| | | | | | | | |
| | | | | | | | |
| | AO comment: There are no neighboring residences within a 1 km radius | | | | | | YES |
| | | | | | | | |
| | | | | | | | |

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) |
| | | | | | |
| | As per email (May 3, 2024) available lands are: NE 35-17-1 W4, E1/2 11-17-1 W4, E 1/ 2-17-1 W4, and section 15-17-1 (dry land) | | | | |
| | | | | | |
| | | | | | |
| Total | | | | 1440 acres dryland brown | |

* 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)

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 | | - |
| | Feeders (450 - 900 lbs) | 0.700 | 0.700 | 0.500 | 0.245 | | - |
| | Feeder Calves (<550 lbs) | 0.700 | 0.700 | 0.275 | 0.135 | | - |
| 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 | | - |
| 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 | | - |
| 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 | | - |
| 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 | 40,000 | 448.0 |
| | Chicken - Layers - (Deep Pit) | 2.000 | 0.700 | 0.008 | 0.011 | | - |
| | Chicken - Pullets/Broilers | 1.000 | 0.700 | 0.002 | 0.001 | 40,000 | 56.0 |
| | 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 | | - |
| 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 | | - |
| 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 | | - |
| Wild Boar | Other | | | | | | |
| | Feeders | 2.000 | 0.800 | 0.140 | 0.224 | | - |
| | Sow (farrowing) | 2.000 | 0.800 | 0.371 | 0.594 | | - |
| | Other | | | | | | |

Total 504.0

For New Operations

Dispersion Factor 1

| Category | Odour Objective | Distance | |
|----------|-----------------|----------|--------|
| | | Feet | Metres |
| 1 | 41.04 | 1,305 | 398 |
| 2 | 54.72 | 1,740 | 530 |
| 3 | 68.4 | 2,175 | 663 |
| 4 | 109.44 | 3,480 | 1,061 |

For Expanding Operations

Dispersion Factor 1
Expansion Factor 0.77

| Category | Odour Objective | Distance | |
|----------|-----------------|----------|--------|
| | | Feet | Metres |
| 1 | 41.04 | 1,005 | 306 |
| 2 | 54.72 | 1,340 | 408 |
| 3 | 68.40 | 1,675 | 510 |
| 4 | 109.44 | 2,679 | 817 |

Name 0
 Address 0
 Legal Land 0
 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) | 0 | 0 | 0 | 0 | 0 |
| | 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 | | | | |
| 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 | - | - | - | - |
| Swine Solid (*Count sows only) | Farrow to finish * | 0 | - | - | - | - |
| | Farrow to wean * | 0 | - | - | - | - |
| | Farrow only * | 0 | - | - | - | - |
| | Feeders/Boars | 0 | - | - | - | - |
| | Growers/Roasters | 0 | - | - | - | - |
| | Weaners | 0 | - | - | - | - |
| Poultry | Chicken - Breeders - Solid | 0 | - | - | - | - |
| | Chicken - Layers - Liquid (includes associated pullets) | 0 | - | 0 | 0 | 0 |
| | Chicken - Layers - (Belt Cage) | 40000 | 220.0000 | 184.0000 | 136.0000 | 112.0000 |
| | Chicken - Layers - (Deep Pit) | 0 | - | - | - | - |
| | Chicken - Pullets/Broilers | 40000 | 130.00000 | 108.4 | 81.2 | 65.2 |
| | 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 | | | | |
| 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 | - | - | - | - |
| 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 |
| Wild Boar | Other | 0 | | | | |
| | Feeders | 0 | - | 0 | 0 | 0 |
| | Sow (farrowing) | 0 | - | - | - | - |
| | Other | 0 | | | | |
| Total Hectares | | | 350.0 | 292.4 | 217.2 | 177.2 |
| Total Acres | | | 864.9 | 722.5 | 536.7 | 437.9 |

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

MINIMUM DISTANCE SEPARATION

Methods used to determine distance (if applicable): google earth

Margin of error (if applicable): +/- 2 m

Requirements (m): Category 1: 398 m Category 2: 530 m Category 3: 663 m Category 4: 1061 m

Technology factor: YES NO

Expansion factor: YES NO

MDS related concerns from directly affected parties or referral agencies: YES NO

LAND BASE FOR MANURE AND COMPOST APPLICATION

Land base required: 864 acres dryland brown

Land base listed: 1440 acres dryland brown

Area not suitable: _____

Available area > 900 acres dryland brown

Requirement met: YES NO

Land spreading agreements required: YES NO

Manure management plan: YES 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

New CFO

If already completed, see _____

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

ALL SIGNATURES IN FILE

YES NO

DATES OF APPROVAL OFFICER SITE VISITS

| | |
|----------------|--|
| March 20, 2024 | |
| | |
| | |

CORRESPONDENCE WITH MUNICIPALITIES AND REFERRAL AGENCIES

Date deeming letters sent: May 14, 2024

Municipality: Cypress County

letter sent response received written/email verbal no comments received

Alberta Health Services: NA

letter sent response received written/email verbal no comments received

Alberta Environment and Parks: N/A

letter sent response received written/email verbal no comments received

Alberta Transportation: N/A

letter sent response received written/email verbal no comments received

Alberta Regulatory Services: N/A

letter sent response received written/email verbal no comments received

Other: Canlin Energy Corp. N/A

letter sent response received written/email verbal no comments received

Other: Fortis AB Inc. N/A

letter sent response received written/email verbal no comments received

Name 0
 Address 0
 Legal Land 0
 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) | - | 1.1 | 0.0 |
| | 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 |
| 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) | 40,000 | 150 | 266.7 |
| | Chicken - Layers - (Deep Pit) | - | 150 | 0.0 |
| | Chicken - Pullets/Broilers | 40,000 | 500 | 80.0 |
| | 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 |
| 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 |
| 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 |
| Wild Boar | Other | - | - | 0.0 |
| | Feeders | - | 6 | 0.0 |
| | Sow (farrowing) | - | 1.25 | 0.0 |
| | Other | - | - | 0.0 |

Total Animal Units 346.7

Affected Party Radius 0.5 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 - Concrete liner

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

Facility description / name (as indicated on site plan) **1. Layer Barn + manure room**
2. Pallet Barn + manure room

Manure storage capacity (see page 1)

| | Length (m) | Width (m) | Depth below grade to the bottom of the liner (m) | NRCB USE ONLY Estimated storage capacity (m ³) |
|----------------|---------------|--------------|--|--|
| 1. | 376' (114.6m) | 120' (36.6m) | 0 | |
| 2. | 235' (71.6m) | 80' (24.4m) | 0 | |
| TOTAL CAPACITY | | | | |

Dimensions of both attached manure storage rooms is 60' x 30' (18.6 m x 9.1 m)

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

Under Roof

Liner protection

Describe how the physical integrity of the liner will be maintained

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 - Concrete liner (cont.)

Concrete liner details

| | |
|---------------------------------|---|
| Concrete thickness 6" | Method of sulphate protection: Type 50 |
| Concrete strength 25 | Concrete reinforcement size and spacing 10mm x 16 inch oc |

Concrete requirements can be found in Technical Guideline Agdex 096-93

Guideline minimums:
Solid manure: 25MPa (D)
Solid manure (wet): 30MPa (C)
Method of sulphate protection:
Type 50 or Type 10 with fly ash or equivalent

NRCB USE ONLY

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

Additional information *(attach as required)*

NRCB USE ONLY

Nine month manure storage volume requirements met YES YES With STMS NO

Depth to water table: **> 1 m below ground** Requirements met: YES NO

Depth to Uppermost groundwater resource: **> 100m below ground** Requirements met: YES NO

ERST completed: see ERST page for details

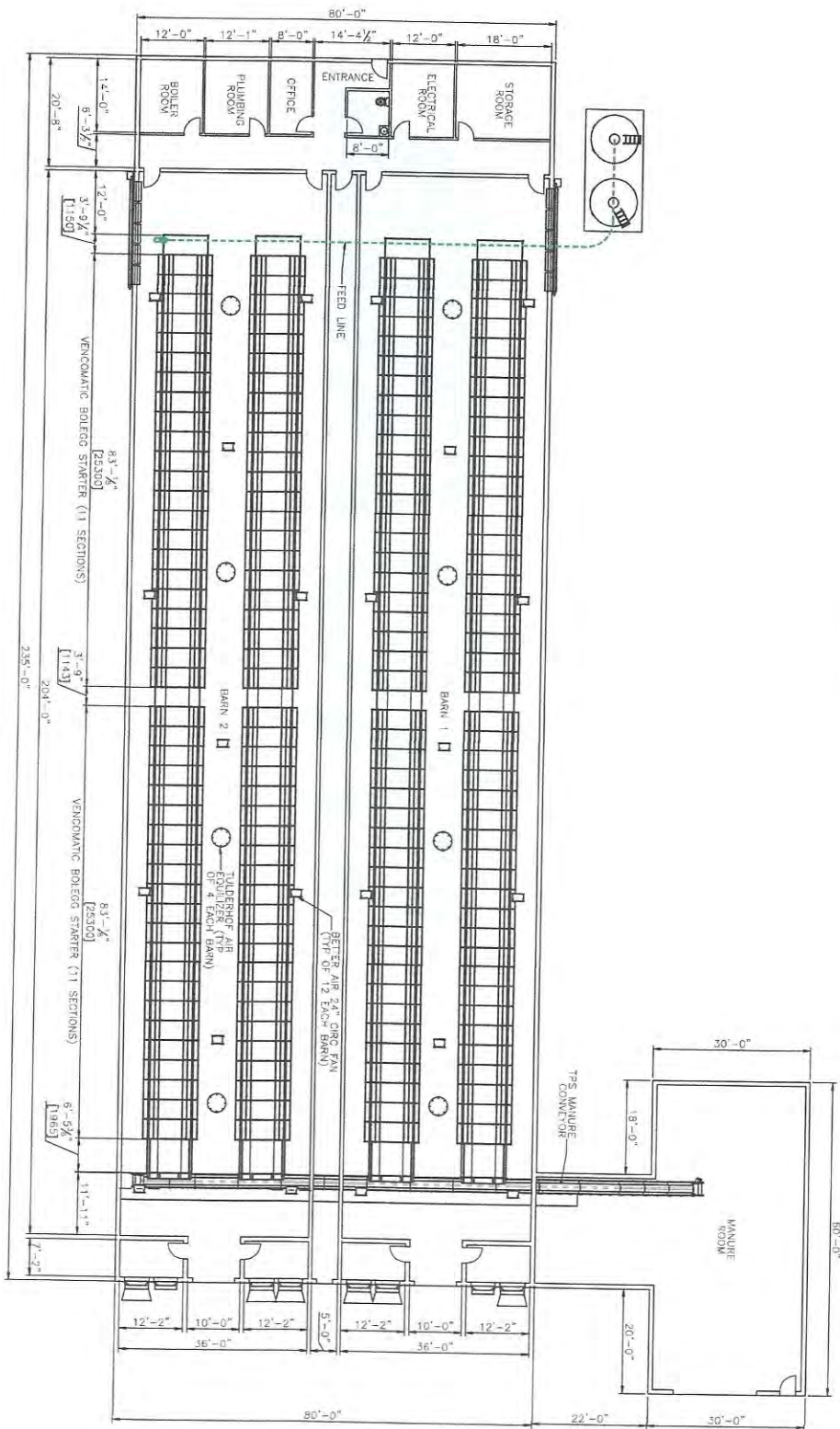
Surface water control systems

Requirements met: YES NO Details/comments: **No runoff expected. Fully under roof**

Concrete liner details

Condition will be attached requiring proof that the concrete specs have been met.

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



PLAN VIEW

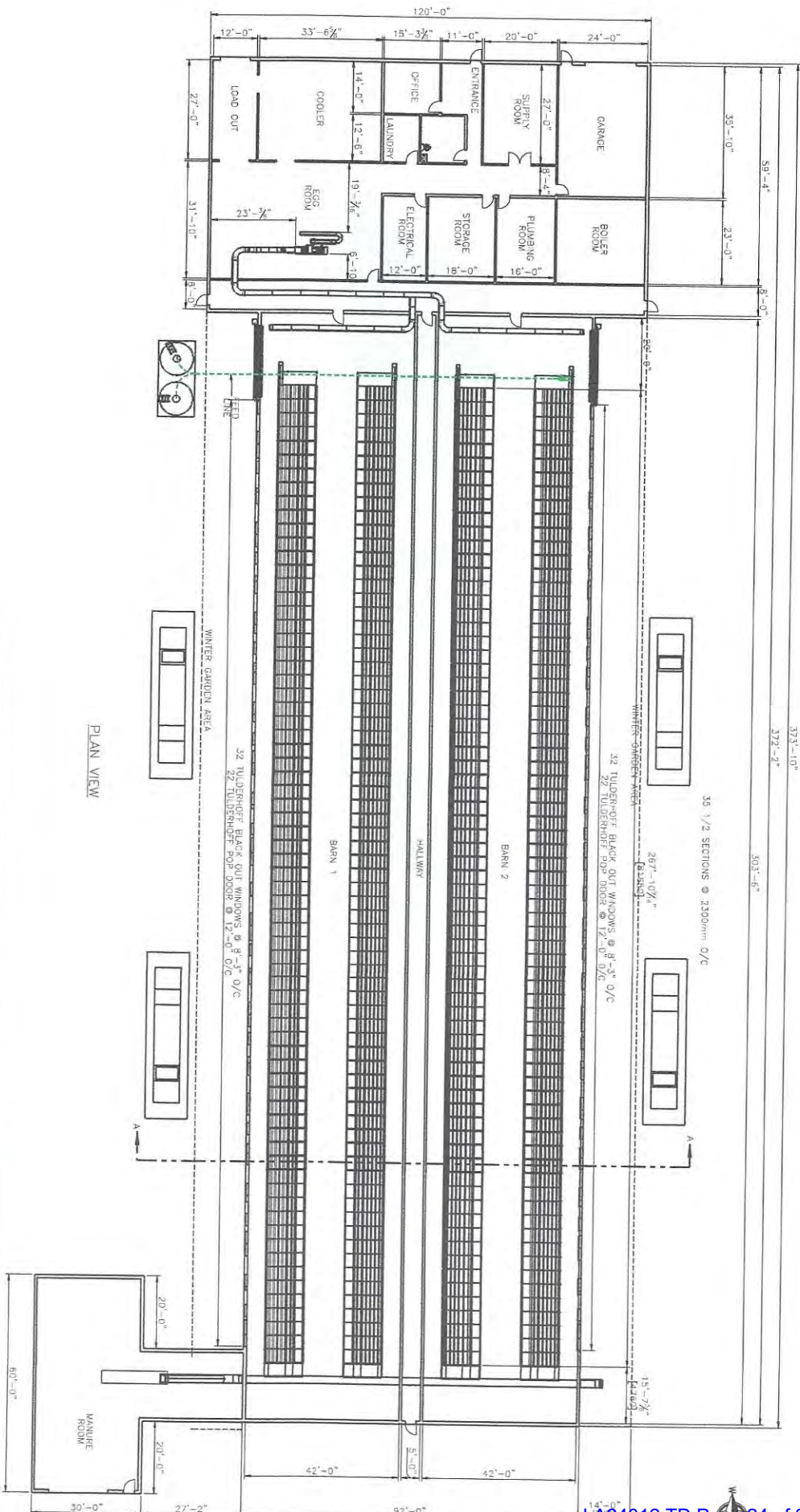
| NO. | DATE | REVISION'S | BY | CHK'D |
|-----|----------|------------------|----|-------|
| 1 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 2 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 3 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 4 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 5 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 6 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 7 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 8 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 9 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 10 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |

| NO. | DATE | REVISION'S | BY | CHK'D |
|-----|----------|------------------|----|-------|
| 1 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 2 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 3 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 4 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 5 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 6 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 7 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 8 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 9 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |
| 10 | 11/12/21 | ISSUE FOR PERMIT | MM | MM |

DENNER FARM SERVICES
 64-2721 HWY. 12 LACOMBE, AB T4A 0E3
 TEL: (403) 468-3900 FAX: (403) 468-3905

COPYRIGHTS:
 DENNER FARM SERVICES INC. IS THE SOLE PROPRIETOR OF ALL RIGHTS IN THIS DOCUMENT. NO PART OF THIS DOCUMENT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF DENNER FARM SERVICES INC.

| | |
|-------------|-----------------|
| PROJECT | ROSELEEN COLONY |
| CLIENT | HILDA, ALBERTA |
| DATE | PULLET BARN |
| DRAWN | MM |
| CHECKED | MM |
| DATE | 11/12/21 |
| PROJECT NO. | 1128 |
| SHEET NO. | 1 OF 1 |
| REVISION | A1 |
| DATE | 11/12/21 |
| BY | MM |
| CHK'D | MM |
| DATE | 11/12/21 |
| PROJECT NO. | 1128 |
| SHEET NO. | 1 OF 1 |
| REVISION | C |



PLAN VIEW

| NO. | DATE | REVISIONS | BY | CHKD |
|-----|----------|--|----|------|
| 1 | 11/21/21 | ISSUE FOR PERMITS | MM | MM |
| 2 | 12/22/21 | REVISIONS TO THE COOR. CHECKS, PERMITS | MM | MM |
| 3 | 01/26/22 | REVISIONS TO THE COOR. CHECKS, PERMITS | MM | MM |
| 4 | 01/26/22 | REVISIONS TO THE COOR. CHECKS, PERMITS | MM | MM |

| NO. | DATE | REVISIONS | BY | CHKD |
|-----|----------|--|----|------|
| 1 | 11/21/21 | ISSUE FOR PERMITS | MM | MM |
| 2 | 12/22/21 | REVISIONS TO THE COOR. CHECKS, PERMITS | MM | MM |
| 3 | 01/26/22 | REVISIONS TO THE COOR. CHECKS, PERMITS | MM | MM |
| 4 | 01/26/22 | REVISIONS TO THE COOR. CHECKS, PERMITS | MM | MM |

DENNER FARM SERVICES
 642211 HWY 12 LACOMBE AB T4L 0E3
 TOLL FREE 1-866-339-0000 PH: 1-403-782-0075

COPYRIGHTS:
 ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM DENNER FARM SERVICES. CONTACT: 1-866-339-0000

| | |
|----------------|------------------------|
| CLIENT: | ROSEGLEEN COLONY |
| CLIENT: | HILDA ALBERTA |
| CLIENT: | LAYER BARN |
| PROJECT TITLE: | LAYER BARN - PLAN VIEW |
| DATE: | 11/21/21 |
| TIME: | 1:15:00 |
| DATE: | 11/21/2023 |
| TIME: | 11:00 |
| SCALE: | 1" = 1'-0" |
| DATE: | 11/21/2023 |
| TIME: | 11:00 |
| SCALE: | 1" = 1'-0" |
| DATE: | 11/21/2023 |
| TIME: | 11:00 |