V

DEQ
Montana Department of Environmental Quality

WATER PROTECTION BUREAU

Agency Use	
Permit No.:	MTG010280
Date Rec'd	2.23.24
Amount Rec'd	0
Check No.	0
Rec'd By	SMF

FORM NOI-NMP CAFO	**Notice of Intent (NOI) and Nutrient Management Plan (NMP) Concentrated Animal Feeding Operation General Permit MTG010000**

This application form is comprised of the **NOI (Sections 1 – 5)** and the **NMP (Sections 6 – 10)**. Before completing the NOI-NMP form, Concentrated Animal Feeding Operation (CAFO) operators must read the CAFO General Permit. CAFO operators are also advised to read the attached NOI-NMP instructions before completing this form. You must print or type legibly; forms that are not legible, not complete, or unsigned will be rejected. You must maintain a copy of the completed NOI-NMP form for your records.

CAFO Status and Fee

Permit Authorization Number: MTG010280

Select Appropriate Fee:
- ☐ New Application: $1200
- ☒ Renewal Application: $600
- ☐ Permit Modification: $600

Sections 1 through 5 consist of the NOI. The application form is to be completed by the owner or operator of a Concentrated Animal Feeding Operation (CAFO).

Section 1 – Facility/Site Information

Facility Name: Hidden Valley Colony

Location (Physical address or Directions): South Gildford

Nearest City or Town: Gildford

Zip Code, County: 59525, Hill

Facility Latitude, Longitude: 48.342026, -110.239692

48.4198874, -110.217608

Date facility began operation: 21-Jan-2015

Status of Applicant: ☐ Federal ☐ State ☐ No ☒ Private ☐ Other _____

Located on Tribal Lands? ☒ No ☐ Yes *(If yes, obtain the permit through EPA, not DEQ)*

Continue to Page 2

Text in blue added 2/12/25 by HN in response to correspondence from permittee received 2/6/25.

Section 2 – Representatives

2.1 Applicant (Owner/Operator)

The owner/operator assumes all liability for site discharges and compliance with the terms and conditions of the permit. The signatory/responsible official must meet certification requirements listed in the Certification Section at this end of this form.

Owner/Operator Formal Name: Samuel A. Hofer - Hidden Valley Colony

Mailing Address: PO Box 187

City, State, Zip Code: Gildford, MT 59525

Signatory/Responsible Official: Name Samuel Hofer Title Pres

Contact Information: Phone 406-376-3165 Email stevehofer20@gmail.com

2.2 Authorized Representative

(Note: Sam Hofer does not have an email address. Listed address is for his son, Stephen Hofer)

For future reports (including NetDMR) to be signed by anyone other than the signatory/responsible official, a duly authorized individual(s) or position must be identified. If one is not designated, than all reports must be signed by the signatory until such designation is made in writing [ARM 17.30.1232(2)].

Select Appropriate Box:

☐ No authorized representative for this permit is designated at this time (continue to Section 3)

☒ I designate the following duly authorized representative for this permit (provide the information below):

Authorized Representative Information:

Authorized Representative: Name [redacted] Title [redacted]

Company Name: [redacted]

Mailing Address: [redacted]

City, State, Zip Code: [redacted]

Contact Information: Phone [redacted] Email [redacted]

Section 3 – Business Description

3.1 SIC Codes and NAICS Codes

Provide at least one Standard Industrial Classification (SIC) code and one North American Industry Classification System (NAICS) code which best reflects the products or services provided by the CAFO.

SIC Code		Description
(1)	252	Chicken Eggs
(2)	213	Hogs
(3)		
(4)		

NAICS Code		Description
(1)	11234	chicken Eggs
(2)	11221	Hogs
(3)		
(4)		

SIC Code Examples:

211 Beef Cattle Feedlots
212 Beef Cattle, Except Feedlots
213 Hogs
214 Sheep and Goats
241 Dairy Farms
251 Broiler, Fryer and Roaster Chickens
252 Chicken Eggs
253 Turkeys and Turkey Eggs
254 Poultry Hatcheries
259 Poultry and Eggs, not elsewhere classified (Ducks)
272 Horses and other Equines

NAICS Code Examples:

112112 Cattle Feedlots
112111 Beef Cattle Ranching and Farming
11221 Hog and Pig Farming
11240 Sheep Farming
11212 Dairy Cattle and Milk Production
11232 Broilers and other Meat-Type Chickens
11234 Chicken Egg Production
11233 Turkey Production
11234 Poultry Hatcheries
112390 Other Poultry Production
112920 Horses and other Equine Production

3.2 Facility or Operation Description

Provide a brief description of the nature of the facility (feedlot, stockyard, sale barn, etc.)

Chicken egg, Sow Isaing

3.3 Existing or Pending Permits, Certification, or Approvals

☐ None

☒ MPDES CAFO

☐ PSD (Air Emissions)_____

☐ 404 Permit (Dredge and Fill)_____

☐ RCRA_____

☐ Other_____

☐ Other_____

Section 4 – Outfalls

4.1 Receiving Water

For each outfall, provide the latitude and longitude (to the nearest decimal degree) and the name of the receiving water. If the receiving water/drainage is unnamed, indicate the closest named drainage it flows into (i.e., "unnamed tributary to Clear Creek"). Attach additional sheets if necessary for more outfalls. This section must not be left blank, and "N/A" is not acceptable.

Outfall	Latitude	Longitude	Name of Receiving Water
001	48.4186110	-111.217556	Upper Milk Halfway Coulee to Sage Creek
002	48.3466664	-110.235014	Lonesome Lake Halfway Coulee to Sage Creek

Section 5 – Characteristics

5.1 Impaired Waters 303(d)

Identify whether the receiving water is impaired for nutrients. Check the Clean Water Act Information Center database at https://deq.mt.gov/water/resources to determine if the receiving water is impaired for nutrients (total nitrogen and/or total phosphorus).

☐ The receiving water is impaired for nutrients

☒ The receiving water is NOT impaired for nutrients

Continue to Page 4

5.2 Animal Confinement

Report the maximum number of each type of animal confined at any one time in open confinement and/or housed under a roof.

Animal type	Number in Open Confinement	Number Housed Under Roof
Mature Dairy Cows	0	0
Veal Calves	0	0
Cattle including dairy Heifers	0	0
Swine 55 lbs. or over	0	1500
Swine 55 lbs. or under	0	0
Horses	0	0
Sheep or Lambs	0	0
Turkeys	0	0
Chicken broilers –includes juveniles	0	0
Chicken layers –includes juveniles	0	48,000
Ducks	0	0
Other Specify:	0	0
Other Specify:	0	0

5.3 Rain Gage Location

Identify the nearest gage station or onsite rain gage. Provide either the Station ID of the gage or a latitude and longitude.

Station ID _____ OR

Latitude, Longitude 48.3421026, -110.739692

5.4 Containment Structures

Were the containment structures built after February 2006?

☒ Yes. Skip the following 3 questions and continue to the table below.

☐ No. Complete the questions and table below.

Do the livestock waste control facilities have 10 feet of separation between the pond bottom and any bedrock formations?

☒ Yes ☐ No

Do the waste containment structures have 4 feet of separation from the pond bottom to any ground water?

☒ Yes ☐ No

Do the livestock waste control facilities comply with the applicable well setbacks?

☒ Yes ☐ No

Continue to Page 5

Identify the type of containment/storage, the total capacity with units, and the number of days of storage in each:

Type of Containment/Storage	Total Capacity	Units (gallons or tons)	Days of Storage
Anaerobic Lagoon			
Storage Pond #1			
Storage Pond #2			
Storage Pond #3			
Storage Pond #4			
Storage Pond #5			
Above Ground Storage Tank #1	4,400,000	Gallons	365
Above Ground Storage Tank #2			
Above Ground Storage Tank #3			
Underfloor Pits	1,009,870	Gallons	365
Below Ground Storage Tank			
Roofed Storage Shed			
Concrete Pad	4000	ton	730
Impervious Soil Pad			
Other Specify:			
Other Specify:			

5.5 Sage Grouse Habitat

Visit the Montana Sage Grouse Habitat Conservation Program (Program) website at https://sagegrouse.mt.gov/ to determine if the proposed operation is located in designated sage grouse core, general, or connectivity habitat.

☐ Yes. Submit an application to the Program and **attach the required consultation letter**.
☒ No. No additional information is required.

5.6 New Source/Operation

Is this a new source and/or operation? New sources must obtain analyses from the Montana Natural Heritage Program (MTNHP) and Montana State Historic Preservation Office (SHPO) demonstrating possible impacts to wildlife and cultural resources, respectively.

☐ Yes. Attach project review analyses from MTNHP and SHPO.
☒ No. No additional information is required

Continue to Page 6

Sections 6 through 10 consist of the Nutrient Management Plan (NMP). These sections are intended to help CAFO operators develop a site-specific NMP required by the CAFO General Permit. Your NMP must be kept at the operation. Attach additional pages as necessary, indicating the corresponding section number on this NMP form.

Section 6 – NMP Minimum Elements

Facility Photos and Maps

Facilities must attach photos and maps depicting the following:

- The production area that shows the locations of all animal confinement structures described in the **Animal Type, Storage Location, and Generation Rates Table.**
- The flow direction of storm water and wastewater for all animal confinement structures described in the **Animal Type, Storage Location, and Generation Rates Table.**
- Manure and wastewater handling and storage areas
- Raw material handling and storage areas
- Storage and disposal areas of chemicals or other contaminants handled on site
- All land application areas (include topography and soil types)
- Environmentally sensitive areas (sinkholes, wells, drinking water sources, tile drain outlets, etc.) for the production area
- Illustrate the facility/activity boundaries, receiving water, and major drainage patterns
- Identify the specific location of the production area and the land application area(s)

☒ I have attached photos and maps (aerial and topographic) that meet the above requirements. see FACTS

6.1 Ensure Adequate Storage Capacity

Complete the table below: Be sure to identify each type of animal confined at this facility. This could include animals of a given species, weight class, or housed for a specific purpose.

Livestock Statistics and Manure, Litter, and Process Wastewater Generation Rates

Animal Type	Waste Storage Location	Maximum Number of Animals at Any Time	Number of Days/Year on Site	Annual manure, litter, and process wastewater production	
				Dry (tons/yr)	Liquid (gallons/yr)
1. Chicken (layers)	concrete pad	48,000	365	1500	
2. Hogs	above ground tank	1500	365		3,000,000
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					

Methods for estimating animal manure, litter, and process wastewater production

Describe the methods used for estimating animal manure, litter, and process wastewater production: Include all formulas, factors, references to tables, and other resources used to calculate manure, litter, and wastewater production. Be sure to account for soiled bedding materials.

previous years production & similar operations

Manure handling:

Identify manure, litter, and process wastewater handling at the CAFO. Mark all that apply:

- ☐ Stored in pens
- ☐ Stored on stacking pad
- ☒ Composting on site
- ☐ Other _____
- ☒ Direct pipe to liquid impoundment
- ☒ Stored under floor pit
- ☐ Separator

Frequency of manure removal from confinement areas:

- ☐ Bi-annually
- ☒ Annually
- ☐ As needed
- ☒ Other litter every 2 yrs

Is the manure, litter, or process wastewater temporarily stored in any location other than the production area?

- ☒ No.
- ☐ Yes. Explain how and where _____

Is dry manure and/or litter stored on an impervious surface?

- ☐ No.
- ☒ Yes. Describe the type and characteristics of this surface concrete pad

Waste control structures:

Provide the 24-hr-25-yr storm event at your facility location. Refer to the map provided in the instructions. 3.0 in/hr

Provide the annual precipitation during critical winter storage period (180 days from mid-October to mid-April) 8.0 in

Provide the area within clean water diversions. This is the area that is inside the BMPs used for clean water diversions and is used to calculate volume required to hold the 24-hr-25-yr storm event and the volume of your critical storage period. 2.0 acres

Check all the surface types within the clean water diversion area and provide the coverage in acres or ft^2. Be sure to circle the correct units.

- ☒ Dirt 2.0 (acres) or ft^2 (circle correct unit)
- ☐ Concrete _____ acres or ft^2 (circle correct unit)
- ☐ Paved _____ acres
- ☐ Under roof _____ acres or ft^2 (circle correct unit) – check if runoff is not part of clean water BMPs
- ☐ Gravel _____ acres or ft^2 (circle correct unit)
- ☐ Pasture _____ acres or ft^2 (circle correct unit)
- ☐ Other _____ _____ acres or ft^2 (circle one)

Use the Table below to identify and describe all production area waste control structures for the production area of each animal type identified in the table "Livestock Statistics and Manure, Litter, and Process Wastewater Generation Rates" above (Section 6.1). Waste control structures may include but are not limited to: manure lagoons, manure ponds, evaporation ponds, wastewater retention ponds, contaminated runoff retention ponds, settling basins, underground storage tanks, underfloor pits, manure solids stacking pads, vegetative treatment strips, composting facilities, and dry stack facilities. Berms, dikes, concrete curbs, ditches, and waste transfer pipelines are also waste control structures and must be listed, though some of the requested measurements may not apply.

Production Area Waste Control Structures Description				
Production area Waste Control Structure (For Corresponding Animal Type Identified in Table Above)	Volume (gal if liquid) (ft^3 if dry)	Number of days of storage	Winter storage depth (ft)	The 24hr-25 yr storm event depth (ft)
1. Concrete pad	4000 ton	720	5.0	6.0
2. Above ground tank	4,400,000	365	6.0	9.0
3. Underfloor pit	1,209,870	365	2.0	2.0
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				

6.2 Mortality Management

Check the box that describes how mortalities are disposed of at this CAFO.

- ☒ Burial
- ☒ Composted
- ☐ Incineration
- ☐ Landfill
- ☐ Contractor removal
- ☐ Other _____

Provide the location where mortalities are disposed of, if part of the production area:

composted in dry stack

6.3 Clean Water Diversion Practices

Check all that apply for how clean water is diverted from the production area.

- ☐ Ditches
- ☒ Earthen berms
- ☒ Culverts
- ☒ Site grading
- ☒ Gutters and spouts
- ☐ Other _____

6.4 Prohibiting Animals and Wastes from Direct Contact with State Waters

Check all that apply for how animals and wastes are prohibited from direct contact with sate waters.

- ☐ Fencing
- ☐ Wall
- ☒ Inside building
- ☐ Other _____

6.5 Chemicals and Contaminants

List all major chemicals or other contaminants handled on site as part of your CAFO operation, including, but not limited to: pesticides, herbicides, animal dips, disinfectants, etc. Specify the method of disposal and location stored for each contaminant. Ensure a corresponding map has been attached, as required in Section 6, Facility Photos and Maps.

None

6.6 Conservation Practices

Check all temporary, permanent, and structural BMPs which will be used to control runnoff of pollutants from the facility's **production area**. Be sure to include them on the map described above in Section 6. If BMPs are not installed, include a schedule for implementation of each of the following measures. Provide details and specifications to suplement the BMP descriptions. Attach additional sheets if necessary.

- ☐ Ditches
- ☒ Earthen berms
- ☒ Culverts and pipes
- ☒ Buffers
- ☒ Site grading
- ☒ Gutters and spouts
- ☐ Covered Pens
- ☐ Other _____

6.7 Sampling and Analysis Procedures for Manure, Litter, Process Wastewater, and Soil

Representative samples of manure, litter, and process wastewater must be analyzed a minimum of once per year for total nitrogen and total phosphorus. Results should be reported in lbs/ton for solids and lbs/1000 gal for liquids. Results will be used to determine rates for manure, litter, and process wastewater. Indicate your method for samping. Be sure to provide a description if you select "other."

- ☒ Sample collection will occur according to CAFO General Permit Section II.D.
- ☐ Other _____

Continue to Page 10

Section 7 – NMP Land Application

Identify whether manure will be land applied to land that is owned, rented, or leased by the owner or operator of the facility.

☐ No. Explain how animal waste will be managed by the operation, including protocol for transfers of manure, litter, and process wastewater. Skip to Section 10.

_____

_____

☒ Yes. Continue below.

7.1 Land Application Photos and Maps

Facilities that land apply must attach photos/maps clearly identify the following items. If an item is not applicable, check the box "None."

- Individual field boundaries for all planned land application areas
- A name, number, letter or other means of identifying each individual land application field
- The soil type(s) present and their locations within the individual land application field(s)
- The location of any downgradient surface waters
- The specific manure/waste handling or nutrient management restrictions associated with each land application field i.e. setbacks
- Buffers and setbacks around state surface waters, well heads, etc.
- Any downgradient open tile line intake structures
  - ☒ None. Not included on map
- Any downgradient sinkholes
  - ☒ None. Not included on map
- Any downgradient agricultural well heads
  - ☒ None. Not included on map
- All conduits to surface waters
- All temporary, permanent, and structural BMPs used to control runoff of pollutants from the land application area

☒ I have attached photos and maps of the site where manure is to be applied. See FACTS

7.2 Protocols to Land Apply Manure, Litter, or Process Wastewater

Check all temporary, permanent, and structural BMPs which will be used to control runoff of pollutants from the CAFO's **land application area.** If not already in use, include a schedule for implementation of each of these measures. You may supplement this description by attaching details and specifications.

☒ Buffers
☐ Constructed wetlands
☒ Infiltration field
☒ Setbacks
☐ Other _____
☒ Conservation tillage
☒ Grass Filter
☒ Residue Management
☐ Terrance

7.3 Soil Phosphorus Sampling and Analysis

Representative **soil** (composite) samples from the top 6 inches layer of soil for each field where manure will be applied must be analyzed for phosphorus content at least once every three years. Analyses will be conducted by a qualified laboratory, using the Olsen P test. Results will be reported in parts per million (ppm) and will be used in determining application rates for manure, litter, and process wastewater.

☒ Sample collection will occur according to Part II.D of the CAFO General Permit.
☐ Other (describe)_____

7.4 Soil Nitrogen Sampling and Analysis

Representative composite soil samples for total nitrogen and nitrate must be collected for each field where manure will be applied. Composite samples for total nitrogen must be collected from a soil depth of 0 to 6 inches and must be analyzed at least once every 3 years. Composite samples for nitrate must be collected from a soil depth of 6 to 24 inches and must be analyzed at least once every 3 years. All samples must be analyzed according to method code 4H2a1-3 in NRCS Soil Survey Laboratory Methods Manual, Soil Survey Investigation Report No. 42. Results must be reported as mg/kg total nitrogen and pounds per acre will be used in determining application rates for manure, litter, and process wastewater.

☒ Sample collection will occur according to Part II.D of the CAFO General Permit.

☐ Other _____

Continue to Page 12

Section 8. NMP Application Rates

The applicant has 2 ways in which to report how manure or process wastewater application rates can be reported to DEQ. Select one:

☐ **Linear Approach**. Expresses rates of application as pounds of nitrogen and phosphorus. Complete Section 8.1, then continue to Section 9. See page 8 of the NOI-NMP Instructions for guidance on the Linear Approach.

☒ **Narrative Rate Approach**. Expresses a narrative rate of application that results in the amount, in tons or gallons, of manure, litter, and process wastewater to be land applied. Complete Section 8.2, then continue to section 9. See page 9 of the NOI-NMP Instructions for guidance on the Narrative Rate Approach. See attached

8.1 Linear Approach

Expresses rates of application as pounds of nitrogen and phosphorus. CAFOs selecting the linear approach to address rates of application must include in the NMP submitted to the Department the following information for each crop, field, and year covered by the NMP:

1. The maximum application rate (pounds/acre/year of nitrogen and phosphorus) from manure, litter, and process wastewater.
2. The outcome of the field-specific assessment of the potential for phosphorus transport from each field. The Department does not have an N transport risk assessment, therefore the NMP must document any basis for assuming that nitrogen will be fully used by crops. The CAFO must specify any conservation practices used in calculating the risk rating.
3. The crops to be planted or any other uses of a field such as pasture or fallow fields.
4. The realistic annual yield goal for each crop or use identified for each field.
5. The nitrogen and phosphorus recommendations from Department acceptable sources for each crop or use identified for each field.
6. Credits for all residual nitrogen in each field that will be plant available.
7. Consideration of multi-year phosphorus application. For any field where nutrients are applied at a rate based on the crop phosphorus requirement, the NMP must account for single-year nutrient applications that supply more than the crop's annual phosphorus requirement.
8. All other additions of plant available nitrogen and phosphorus (i.e., from sources other than manure, litter, or process wastewater or credits for residual nitrogen).
9. The form and source of manure, litter, and process wastewater to be land-applied.
10. The timing and method of land application. The NMP also must include storage capacities needed to ensure adequate storage that accommodates the timing indicated.
11. The methodology that will be used to account for the amount of nitrogen and phosphorus in the manure, litter, and wastewater to be applied.
12. Any other factors necessary to determine the maximum application rate identified in accordance with this Linear Approach.

See Nutrient Budget examples in Facts
Budgets are created prior to application

Continue to Page 13

Section 9 – NMP Phosphorus

Phosphorus Risk Assessment: The permittee shall assess the risk of phosphorus contamination of state waters. An assessment shall be conducted for each field, under the control of the operator, to which manure, litter or process wastewater will or may be applied. If a new field is added in the future, then the permittee must submit a revised (modified) NMP. The permittee has the option of using Method A or Method B (below) to complete the assessment, unless the receiving water is impaired for nutrients, then you must use method B below for phosphorus risk assessment. Copies of all tables and calculations used to complete the assessments, as well as the results of the assessments, shall be submitted to the Department and copies shall be maintained onsite at the facility and available for Departmental review. The results of the assessments shall be used to determine the appropriate basis for land application of wastes from the facility.

Indicate which method will be used to determine phosphorus application:

☒ **Method A** – Representative Soil Sample. Complete Section 9.1, then continue to Section 10.

☐ **Method B** – Phosphorus Index. Complete Section 9.2, then continue to Section 10.

9.1 Method A – Representative Soil Sample

Obtain one or more representative soil sample(s) from the field per ARM 17.30.1334
Have the sample analyzed for phosphorus by a qualified lab. The "Olsen P test" must be used for the analysis, and the result must be reported in parts per million (ppm). Using the results of the Olsen P test, determine application basis according to the Table below.

Olsen P Soil Test Results (ppm)	Application Basis
<25.0	Nitrogen Needs of Crop
25.1 - 100.0	Phosphorus Needs of Crop
100.0 – 150.0	Phosphorus Needs up to Crop Removal Rate
>150.0	No Application allowed

Olsen P Test Result: < 25.0 ppm

End of Method A. Continue to Section 10

Using the calculated Total Phosphorus Index Value, assign the overall site/field vulnerability to phosphorus loss according to the table below.

Total Phosphorus Index Value	Site Vulnerability to Phosphorus Loss
<11	Low
11-21	Medium
22-43	High
>43	Very High

Using the calculated Site Vulnerability to Phosphorus Loss, determine the appropriate application basis according to the table below.

Site Vulnerability to Phosphorus Loss	Application Basis
Low	Nitrogen Needs
Medium	Nitrogen Needs
High	Phosphorus Need Up to Crop Removal
Very High	Phosphorus Crop Removal or No Application

Phosphorus Index Value: _____

Section 10 – NMP Guidance

Land Application Equipment Calibration

Describe the type of equipment used to land apply wastes and the calibration procedures:
Injection system w/ flow meter, litter spreader per NEQ-9

Implementation, Operation, Maintenance and Recordkeeping

The permittee is required to develop protocols for implementation of the NMP, proper operation and maintenance of the livestock waste control facilities, and recordkeeping as described in Part 2 of the permit.

Have protocols been developed for the operation? ☒ Yes ☐ No

The documents below are maintained:

Implementation of the NMP:	☒ Yes ☐ No
Facility operation and maintenance:	☒ Yes ☐ No
Recordkeeping and reporting	☒ Yes ☐ No
Sample collection and analysis	☒ Yes ☐ No
Manure transfer	☐ Yes ☒ No

If your answer to any of the above question is no, provide explanation:
NO manure transfer occurs

Provide date and location of most recent documentation:

Date: Dec-2024

Location: Farm Manager office

NOI-NMP Certification

The NOI Form certification must be completed by the applicant (owner/operator) responsible for the authorization as identified in Section C. Certification of this NOI is certification that the applicant will comply with the applicable terms of the CAFO General Permit.

Permittee Information: This form must be completed, signed, and certified as follows:

- For a corporation, by a principal officer of at least the level of vice president;
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

All Permittees Must Complete the Following Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information; including the possibility of fine and imprisonment for knowing violations. [75-5-633, MCA].

Certification of this form indicates conformance with the CAFO General Permit.

Name (Type or Print) Samuel A. Hofer	
Title (Type or Print) President	Phone Number 406-376-3165
Signature Samuel A. Hofer	Date Signed 12-29-23

DEQ will not process this form until all the requested information is supplied, and the appropriate fees are paid.

Return this NOI-NMP-CAFO Form and the applicable fee payment to:

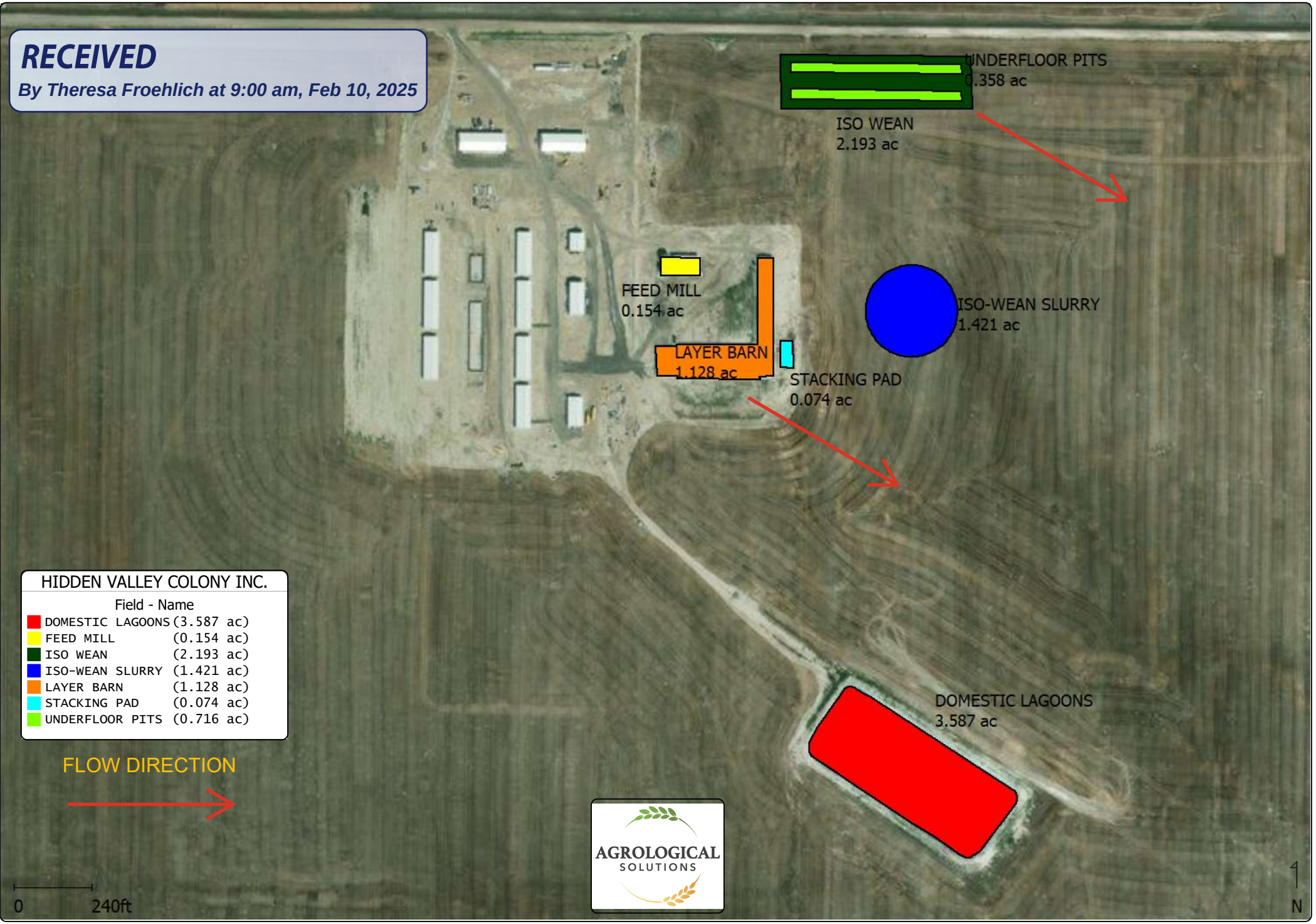
Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, MT 59620-0901
(406) 444-5546

Hidden Valley Colony Inc.
(Updated 12/16/2024)

SITE LAYOUT
2023 CAFO PERMIT

Agrological Solutions Inc.
steve.ellery@aglogical.com
406.262.0230

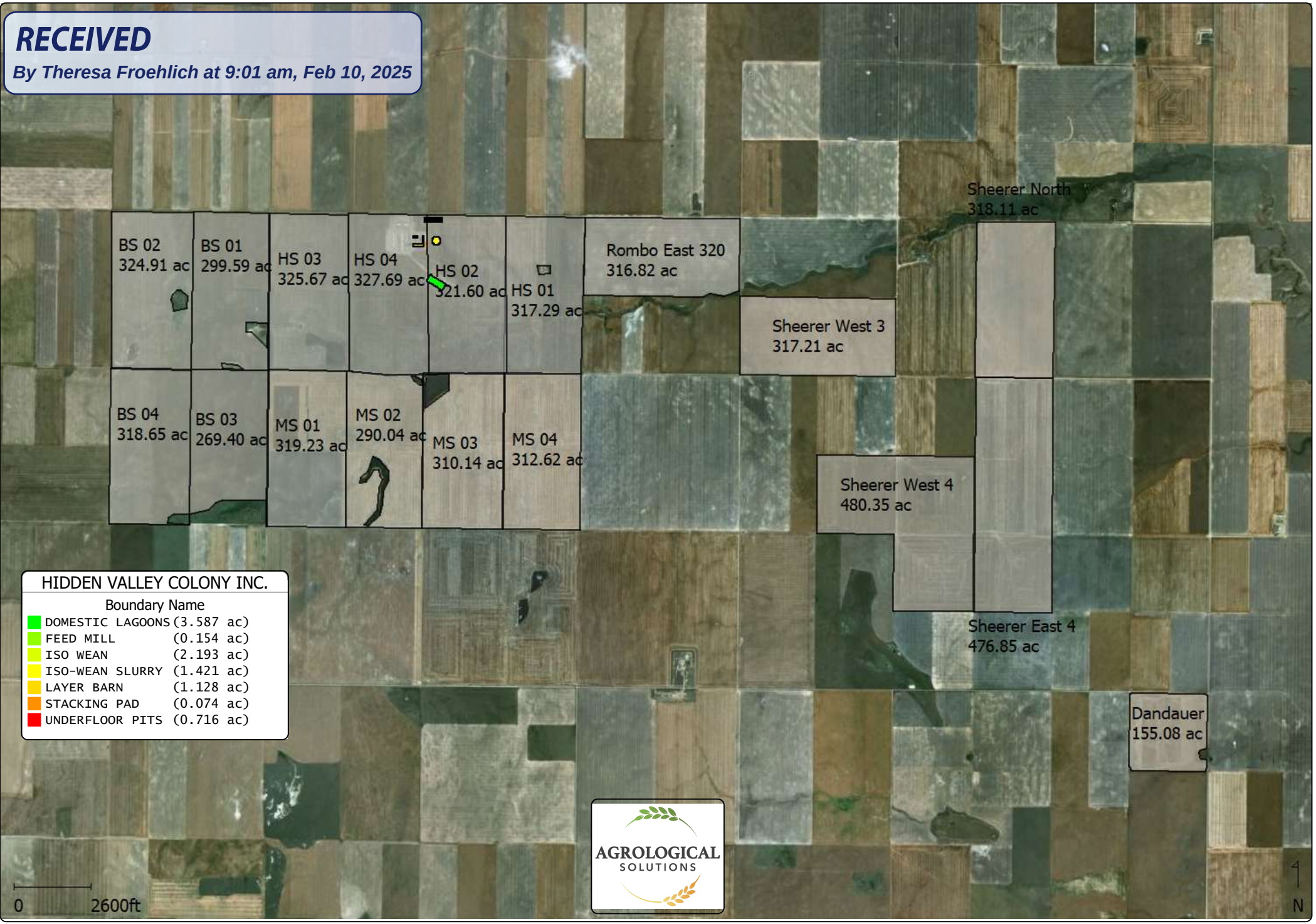
RECEIVED
By Theresa Froehlich at 9:00 am, Feb 10, 2025



Hidden Valley Colony Inc.
(Updated 12/16/2024)

SITE LAYOUT
2023 CAFO PERMIT

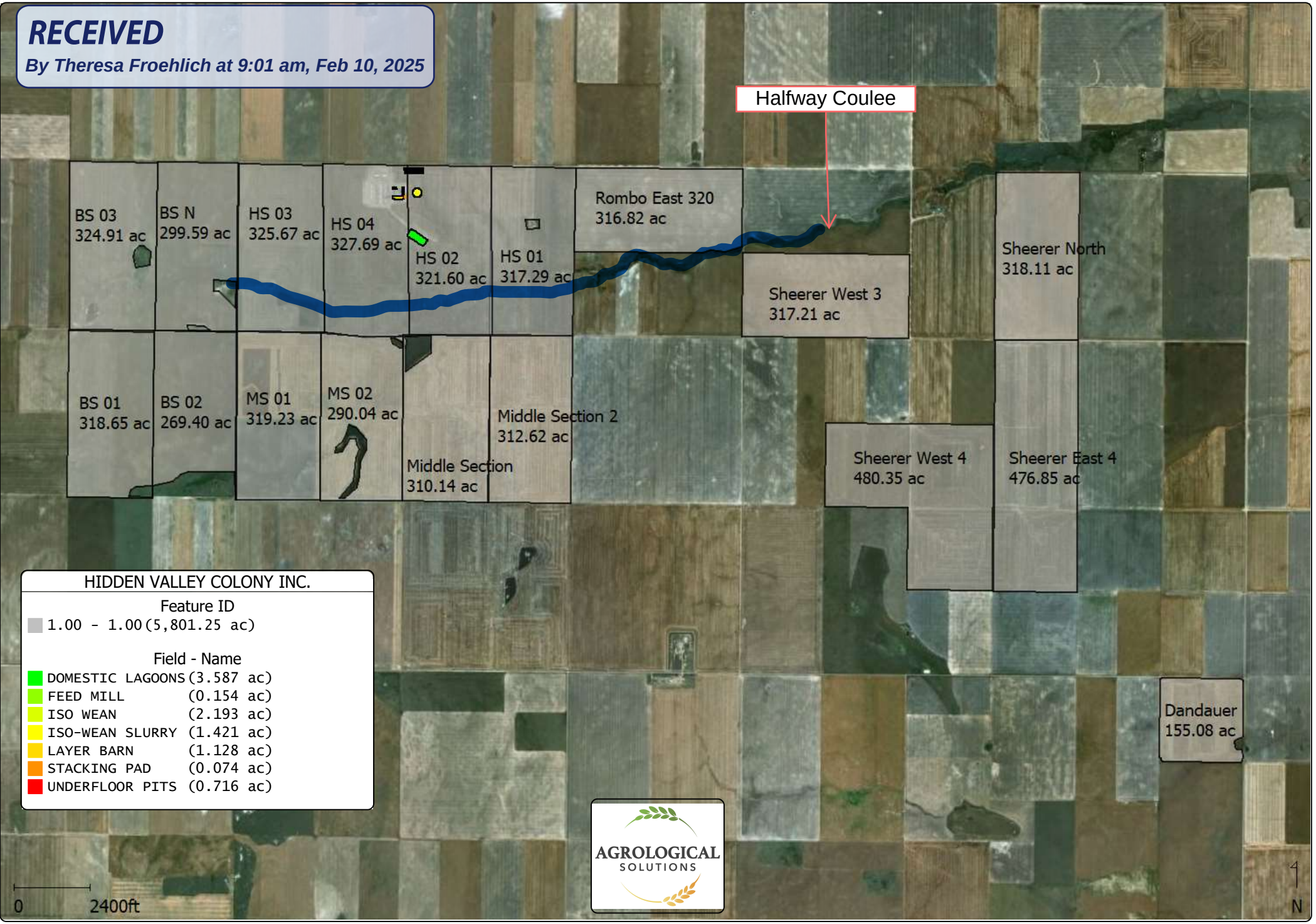
Agrological Solutions Inc.
steve.ellery@aglogical.com
406.262.0230



Hidden Valley Colony Inc.
(Updated 12/16/2024)

SITE OVERVIEW
2023 CAFO PERMIT

Agrological Solutions Inc.
steve.ellery@aglogical.com
406.262.0230

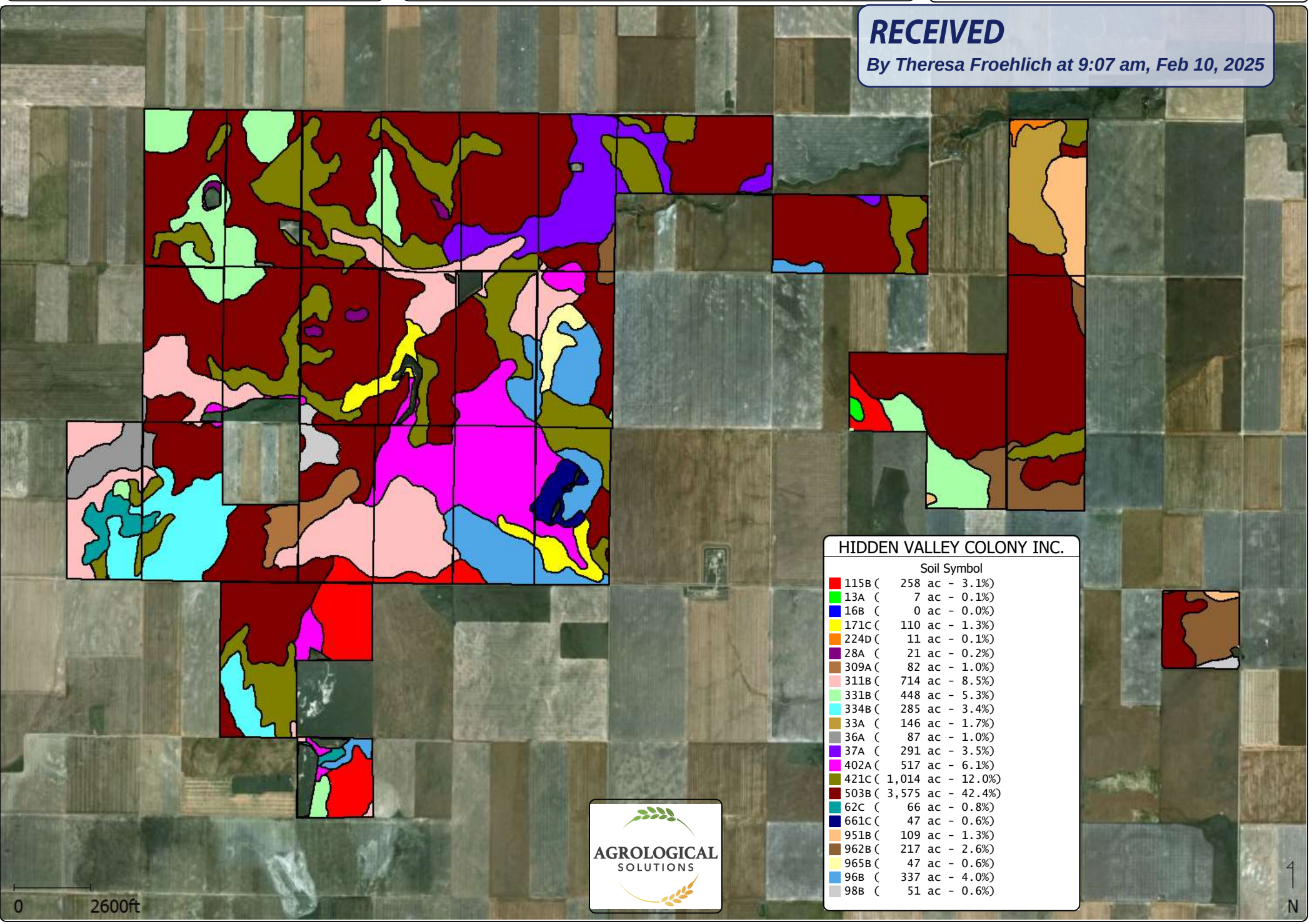


Ag Leader Technology SMS Advanced

Hidden Valley Colony Inc.
(Updated 12/16/2024)

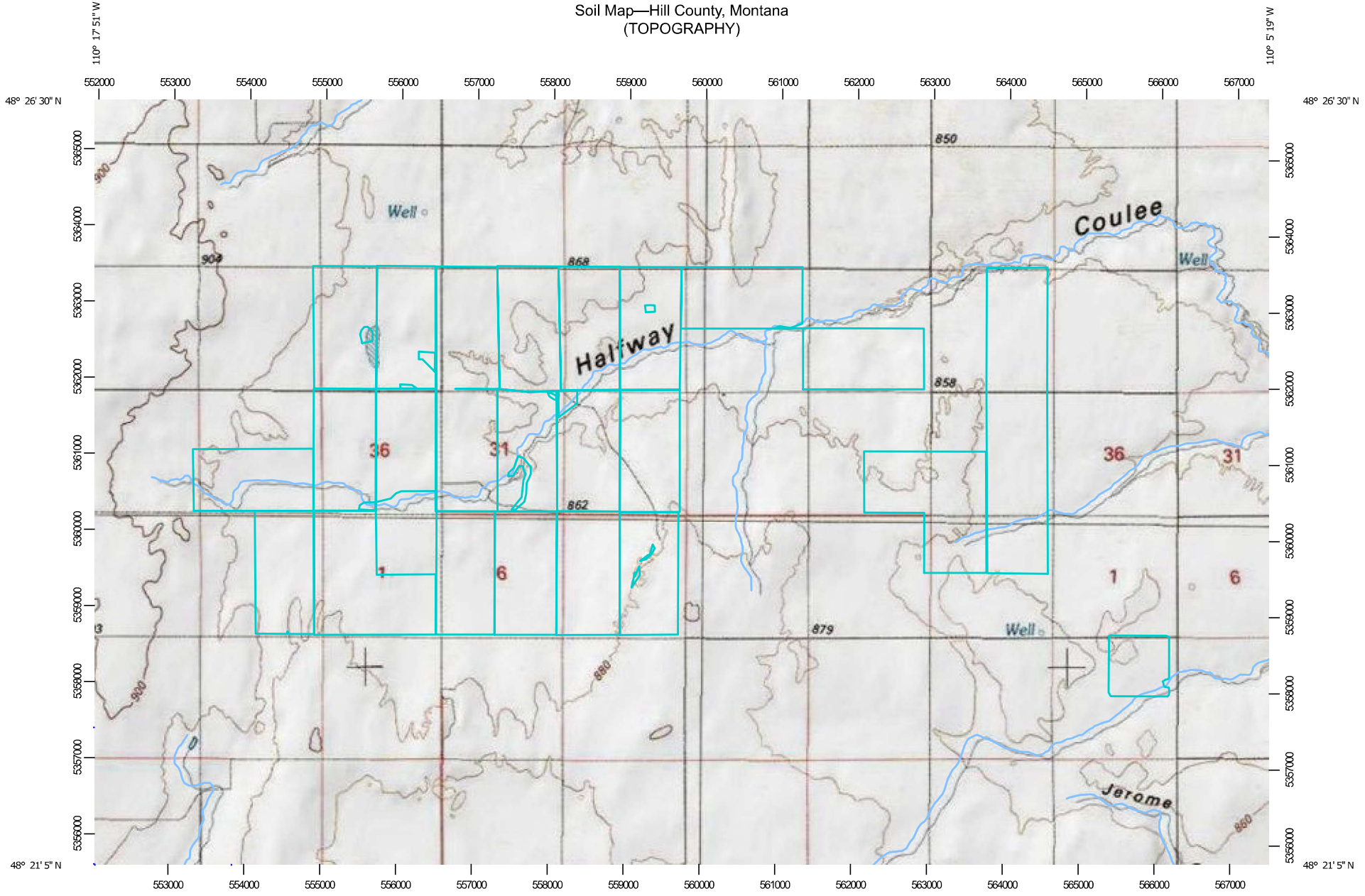
USDA SOIL SURVEY
2023 CAFO PERMIT

Agrological Solutions Inc.
steve.ellery@aglogical.com
406.262.0230



Ag Leader Technology SMS Advanced

Soil Map—Hill County, Montana
(TOPOGRAPHY)



Map Scale: 1:70,700 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 1000 2000 4000 6000

Feet: 0 3000 6000 12000 18000

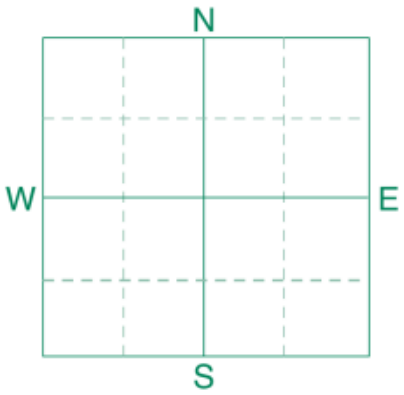
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

AGVISE LABORATORIES

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **home place 4**
SAMPLE ID **home place 4**
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Mustard**



SUBMITTED FOR:
TEW PLACE FARMS
25210 RD 90
GILDFORD, MT 59525

SUBMITTED BY: **TE3882**
TEW PLACE FARMS
25210 RD 90
GILDFORD, MT 59525

REF # **21289301** BOX # **4810**
LAB # **NW9813**

Date Sampled **03/18/2024** Date Received **03/20/2024** Date Reported **03/21/2024**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
0-6" Nitrate	12 lb/acre	*******			
Olsen Phosphorus	27 ppm	*******	*******	*******	*******
Potassium	307 ppm	*******	*******	*******	*******
0-6'' Chloride	12 lb/acre	*****			
0-6" Sulfur	18 lb/acre	*******	*******		
Boron	0.4 ppm	******			
Zinc	1.19 ppm	*******	*******	*******	
Iron	18.8 ppm	*******	*******	*******	*******
Manganese	4.0 ppm	*******	*******	*******	*****
Copper	0.7 ppm	*******	*******	*****	
Magnesium	339 ppm	*******	*******	*******	*****
Calcium	1960 ppm	*******	*******	*******	*******
Sodium	29 ppm	****			
Org.Matter	1.4 %	******			
Carbonate(CCE)	0.1 %	*			
0-6" Sol. Salts	0.23 mmho/cm	******			

1st Crop Choice		
Wheat-Spring		
YIELD GOAL		
25 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	44	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	16	Broadcast
S	7	Band (Trial)
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	1	Band (Trial)
Mg	0	
Lime		

2nd Crop Choice		
Wheat-Spring		
YIELD GOAL		
35 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	71	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	16	Broadcast
S	7	Band (Trial)
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	1	Band (Trial)
Mg	0	
Lime		

3rd Crop Choice		
Wheat-Spring		
YIELD GOAL		
45 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	98	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	16	Broadcast
S	7	Band (Trial)
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	1	Band (Trial)
Mg	0	
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.6**		**13.5 meq**	(65-75) **72.4**	(15-20) **20.9**	(1-7) **5.8**	(0-5) **0.9**	(0-5) **0.0**

General Comments: Medium-textured (CEC: 11-30 meq)

Crop 1: 35 lb potassium chloride (0-0-60-50Cl) = 16 lb chloride. Soil nitrate for 0-24 inch depth is estimated 24 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 16 K2O = 9 AGVISE Band guideline will build P & K test levels to the medium range over several years.

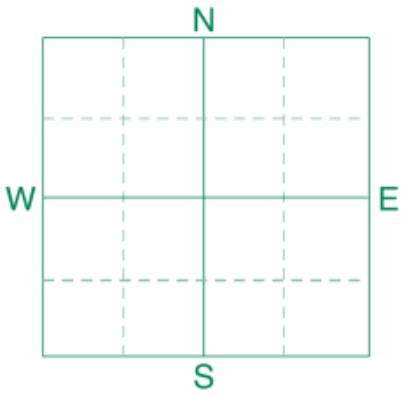
Crop 2: 35 lb potassium chloride (0-0-60-50Cl) = 16 lb chloride. Soil nitrate for 0-24 inch depth is estimated 24 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 22 K2O = 13 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: 35 lb potassium chloride (0-0-60-50Cl) = 16 lb chloride. Soil nitrate for 0-24 inch depth is estimated 24 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 28 K2O = 17 AGVISE Band guideline will build P & K test levels to the medium range over several years.

SOIL TEST REPORT

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

FIELD ID **home place 2**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Mustard**



SUBMITTED FOR:
TEW PLACE FARMS
25210 RD 90
GILDFORD, MT 59525

SUBMITTED BY: **TE3882**
TEW PLACE FARMS
25210 RD 90
GILDFORD, MT 59525

REF # **21289302** BOX # **4810**
LAB # **NW9814**

Date Sampled **03/18/2024** Date Received **03/20/2024** Date Reported **03/21/2024**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
0-6" Nitrate	12 lb/acre	*******			
Olsen Phosphorus	20 ppm	*******	*******	*******	*******
Potassium	350 ppm	*******	*******	*******	*******
0-6'' Chloride	12 lb/acre	*****			
0-6" Sulfur	18 lb/acre	*******	*******		
Boron	0.5 ppm	*******	**		
Zinc	1.47 ppm	*******	*******	*******	***
Iron	17.2 ppm	*******	*******	*******	*******
Manganese	2.9 ppm	*******	*******	*******	**
Copper	0.59 ppm	*******	*******	**	
Magnesium	313 ppm	*******	*******	*******	**
Calcium	3637 ppm	*******	*******	*******	*******
Sodium	24 ppm	****			
Org.Matter	1.4 %	******			
Carbonate(CCE)	0.5 %	***			
0-6" Sol. Salts	0.24 mmho/cm	******			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Barley-Malting			Wheat-Spring			Barley-Malting		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
40 BU			35 BU			60 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band			Band			Band		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	38		N	71		N	69	
P_2O_5	15	Band (Starter)*	P_2O_5	15	Band (Starter)*	P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*	K_2O	10	Band (Starter)*	K_2O	10	Band (Starter)*
Cl	16	Broadcast	Cl	16	Broadcast	Cl	16	Broadcast
S	7	Band (Trial)	S	7	Band (Trial)	S	7	Band (Trial)
B	0		B	0		B	0	
Zn	0		Zn	0		Zn	0	
Fe	0		Fe	0		Fe	0	
Mn	0		Mn	0		Mn	0	
Cu	1	Band (Trial)	Cu	1	Band (Trial)	Cu	1	Band (Trial)
Mg	0		Mg	0		Mg	0	
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.7**		**21.8 meq**	(65-75) **83.4**	(15-20) **12.0**	(1-7) **4.1**	(0-5) **0.5**	(0-5) **0.0**

General Comments: Soil texture is not estimated on high pH soils.

Crop 1: 35 lb potassium chloride (0-0-60-50Cl) = 16 lb chloride. Soil nitrate for 0-24 inch depth is estimated 24 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 19 K2O = 20 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: 35 lb potassium chloride (0-0-60-50Cl) = 16 lb chloride. Soil nitrate for 0-24 inch depth is estimated 24 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 22 K2O = 13 AGVISE Band guideline will build P & K test levels to the medium range over several years.

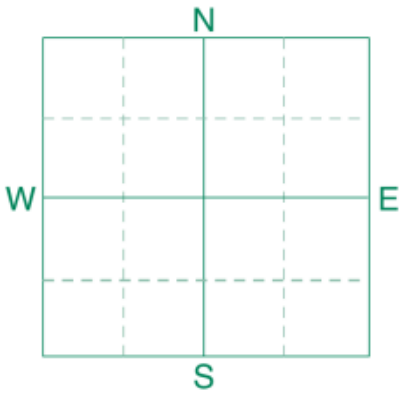
Crop 3: 35 lb potassium chloride (0-0-60-50Cl) = 16 lb chloride. Soil nitrate for 0-24 inch depth is estimated 24 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 28 K2O = 30 AGVISE Band guideline will build P & K test levels to the medium range over several years.

AGVISE LABORATORIES

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **bin site 2**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Wheat-Winter**



SUBMITTED FOR:
TEW PLACE FARMS
25210 RD 90
GILDFORD, MT 59525

SUBMITTED BY: **TE3882**
TEW PLACE FARMS
25210 RD 90
GILDFORD, MT 59525

REF # **21289305** BOX # **4895**
LAB # **NW9817**

Date Sampled **03/18/2024** Date Received **03/20/2024** Date Reported **03/21/2024**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
0-6" Nitrate	10 lb/acre	******			
Olsen Phosphorus	19 ppm	******	******	******	******
Potassium	383 ppm	******	******	******	******
0-6'' Chloride	4 lb/acre	*			
0-6" Sulfur	16 lb/acre	******	******		
Boron	0.6 ppm	********	***		
Zinc	0.86 ppm	******	******	****	
Iron	13.6 ppm	******	******	******	******
Manganese	2.3 ppm	******	******	*******	*
Copper	0.63 ppm	******	*******	**	
Magnesium	312 ppm	******	******	*******	**
Calcium	3334 ppm	******	******	******	******
Sodium	27 ppm	****			
Org.Matter	1.4 %	******			
Carbonate(CCE)	0.6 %	****			
0-6" Sol. Salts	0.28 mmho/cm	*******	*		

1st Crop Choice		
Barley-Malting		
YIELD GOAL		
40 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	42	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	32	Broadcast
S	7	Band (Trial)
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	1	Band (Trial)
Mg	0	
Lime		

2nd Crop Choice		
Barley-Malting		
YIELD GOAL		
50 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	58	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	32	Broadcast
S	7	Band (Trial)
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	1	Band (Trial)
Mg	0	
Lime		

3rd Crop Choice		
Barley-Malting		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	73	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	32	Broadcast
S	7	Band (Trial)
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	1	Band (Trial)
Mg	0	
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.7**		**20.4 meq**	(65-75) **81.8**	(15-20) **12.8**	(1-7) **4.8**	(0-5) **0.6**	(0-5) **0.0**

General Comments: Soil texture is not estimated on high pH soils.

Crop 1: 70 lb potassium chloride (0-0-60-50Cl) = 32 lb chloride. Soil nitrate for 0-24 inch depth is estimated 20 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 19 K2O = 20 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: 70 lb potassium chloride (0-0-60-50Cl) = 32 lb chloride. Soil nitrate for 0-24 inch depth is estimated 20 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 24 K2O = 25 AGVISE Band guideline will build P & K test levels to the medium range over several years.

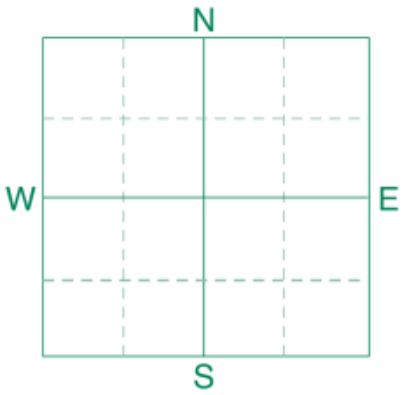
Crop 3: 70 lb potassium chloride (0-0-60-50Cl) = 32 lb chloride. Soil nitrate for 0-24 inch depth is estimated 20 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 28 K2O = 30 AGVISE Band guideline will build P & K test levels to the medium range over several years.

AGVISE LABORATORIES

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **middle section 4**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Lentils**



SUBMITTED FOR:
TEW PLACE FARMS
25210 RD 90
GILDFORD, MT 59525

SUBMITTED BY: **TE3882**
TEW PLACE FARMS
25210 RD 90
GILDFORD, MT 59525

REF # **21289310** BOX # **4895**
LAB # **NW9810**

Date Sampled **03/18/2024** Date Received **03/20/2024** Date Reported **03/21/2024**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
0-6" Nitrate	10 lb/acre	******			
Olsen Phosphorus	25 ppm	******	******	******	******
Potassium	383 ppm	******	******	******	******
0-6'' Chloride	3 lb/acre	*			
0-6" Sulfur	10 lb/acre	********	***		
Boron	0.3 ppm	*****			
Zinc	0.48 ppm	********	****		
Iron	38.9 ppm	******	******	******	******
Manganese	7.2 ppm	******	******	******	******
Copper	0.72 ppm	******	********	****	
Magnesium	255 ppm	******	*******	******	
Calcium	1511 ppm	******	*******	******	
Sodium	14 ppm	**			
Org.Matter	1.4 %	******			
Carbonate(CCE)	0.2 %	*			
0-6" Sol. Salts	0.19 mmho/cm	****			

1st Crop Choice		
Mustard		
YIELD GOAL		
500 LBS		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	20	
P_2O_5	10	Band (Starter)*
K_2O	0	
Cl		Not Available
S	9	Band (Trial)
B	1	Broadcast
Zn	1	Band
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime	0	

2nd Crop Choice		
Mustard		
YIELD GOAL		
1000 LBS		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	40	
P_2O_5	10	Band (Starter)*
K_2O	0	
Cl		Not Available
S	9	Band (Trial)
B	1	Broadcast
Zn	1	Band
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime	0	

3rd Crop Choice		
Mustard		
YIELD GOAL		
1500 LBS		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	75	
P_2O_5	10	Band (Starter)*
K_2O	0	
Cl		Not Available
S	9	Band (Trial)
B	1	Broadcast
Zn	1	Band
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime	0	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.5**		**11.6 meq**	(65-75) **64.9**	(15-20) **18.3**	(1-7) **8.4**	(0-5) **0.5**	(0-5) **7.9**

General Comments: Medium-textured (CEC: 11-30 meq)
Percent hydrogen is estimated from water pH, CEC corrected for exchangeable acidity.

Crop 1: Limited data on crop response to chloride. Soil nitrate for 0-24 inch depth is estimated 20 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 10 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 9 K2O = 5 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Limited data on crop response to chloride. Soil nitrate for 0-24 inch depth is estimated 20 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 10 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 18 K2O = 9 AGVISE Band guideline will build P & K test levels to the medium range over several years.

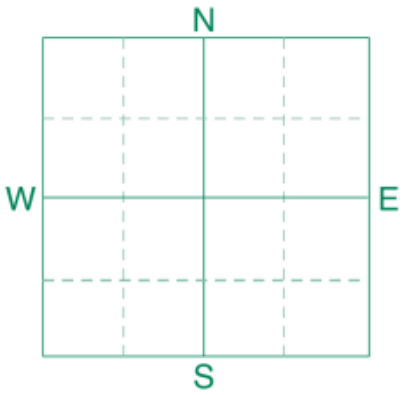
Crop 3: Limited data on crop response to chloride. Soil nitrate for 0-24 inch depth is estimated 20 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 10 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 27 K2O = 14 AGVISE Band guideline will build P & K test levels to the medium range over several years.

AGVISE LABORATORIES

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **middle 3 with manure**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Mustard**



SUBMITTED FOR:
TEW PLACE FARMS
25210 RD 90
GILDFORD, MT 59525

SUBMITTED BY: **TE3882**
TEW PLACE FARMS
25210 RD 90
GILDFORD, MT 59525

REF # **21289311** BOX # **4895**
LAB # **NW9811**

Date Sampled **03/18/2024** Date Received **03/20/2024** Date Reported **03/21/2024**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
0-6" Nitrate	12 lb/acre	*******			
Olsen Phosphorus	26 ppm	*******	*******	*******	*******
Potassium	461 ppm	*******	*******	*******	*******
0-6'' Chloride	8 lb/acre	***			
0-6" Sulfur	18 lb/acre	*******	*******		
Boron	0.8 ppm	*******	******		
Zinc	1.78 ppm	*******	*******	*******	******
Iron	18.1 ppm	*******	*******	*******	*******
Manganese	6.3 ppm	*******	*******	*******	*******
Copper	0.89 ppm	*******	*******	*******	
Magnesium	387 ppm	*******	*******	*******	******
Calcium	3660 ppm	*******	*******	*******	*******
Sodium	38 ppm	******			
Org.Matter	1.6 %	******			
Carbonate(CCE)	1.3 %	*******			
0-6" Sol. Salts	0.36 mmho/cm	********			

1st Crop Choice		
Barley-Malting		
YIELD GOAL		
40 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	38	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	24	Broadcast
S	7	Band (Trial)
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

2nd Crop Choice		
Barley-Malting		
YIELD GOAL		
50 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	54	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	24	Broadcast
S	7	Band (Trial)
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

3rd Crop Choice		
Barley-Malting		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	69	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	24	Broadcast
S	7	Band (Trial)
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.7**		**22.9 meq**	(65-75) **80.0**	(15-20) **14.1**	(1-7) **5.2**	(0-5) **0.7**	(0-5) **0.0**

General Comments: Soil texture is not estimated on high pH soils.

Crop 1: 52 lb potassium chloride (0-0-60-50Cl) = 24 lb chloride. Soil nitrate for 0-24 inch depth is estimated 24 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 19 K2O = 20 AGVISE Band guideline will build P & K test levels to the medium range over several years.

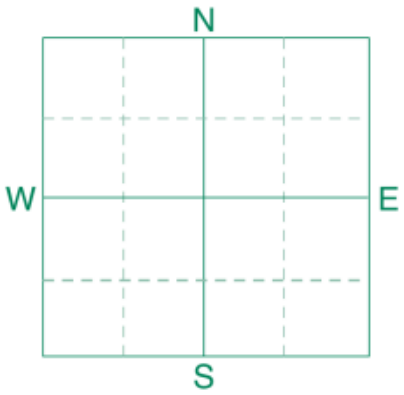
Crop 2: 52 lb potassium chloride (0-0-60-50Cl) = 24 lb chloride. Soil nitrate for 0-24 inch depth is estimated 24 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 24 K2O = 25 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: 52 lb potassium chloride (0-0-60-50Cl) = 24 lb chloride. Soil nitrate for 0-24 inch depth is estimated 24 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 28 K2O = 30 AGVISE Band guideline will build P & K test levels to the medium range over several years.

SOIL TEST REPORT

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

FIELD ID **sheerer 960**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Mustard**



SUBMITTED FOR:
TEW PLACE FARMS
25210 RD 90
GILDFORD, MT 59525

SUBMITTED BY: **TE3882**
TEW PLACE FARMS
25210 RD 90
GILDFORD, MT 59525

REF # **21289313** BOX # **4895**
LAB # **NW9805**

Date Sampled **03/18/2024** Date Received **03/20/2024** Date Reported **03/21/2024**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
0-6" Nitrate	11 lb/acre	******			
Olsen Phosphorus	30 ppm	******	******	******	******
Potassium	370 ppm	******	******	******	******
0-6'' Chloride	14 lb/acre	******			
0-6" Sulfur	46 lb/acre	******	******	******	******
Boron	0.3 ppm	****			
Zinc	0.58 ppm	******	******		
Iron	45.6 ppm	******	******	******	******
Manganese	14.1 ppm	******	******	******	******
Copper	0.82 ppm	******	******	******	
Magnesium	368 ppm	******	******	******	*****
Calcium	1455 ppm	******	******	*****	
Sodium	21 ppm	***			
Org.Matter	1.7 %	******			
Carbonate(CCE)	0.1 %	*			
0-6" Sol. Salts	0.19 mmho/cm	****			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Barley-Malting			Barley-Malting			Barley-Malting		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
40 BU			50 BU			75 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band			Band			Band		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	40		N	56		N	94	
P_2O_5	15	Band (Starter)*	P_2O_5	15	Band (Starter)*	P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*	K_2O	10	Band (Starter)*	K_2O	10	Band (Starter)*
Cl	12	Broadcast	Cl	12	Broadcast	Cl	12	Broadcast
S	0		S	0		S	0	
B	1	Broadcast	B	1	Broadcast	B	1	Broadcast
Zn	0		Zn	0		Zn	0	
Fe	0		Fe	0		Fe	0	
Mn	0		Mn	0		Mn	0	
Cu	0		Cu	0		Cu	0	
Mg	0		Mg	0		Mg	0	
Lime	0		Lime	0		Lime	0	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.2**		**13.4 meq**	(65-75) **54.2**	(15-20) **22.9**	(1-7) **7.1**	(0-5) **0.7**	(0-5) **15.2**

General Comments: Medium-textured (CEC: 11-30 meq)
Percent hydrogen is estimated from water pH, CEC corrected for exchangeable acidity.

Crop 1: 26 lb potassium chloride (0-0-60-50Cl) = 12 lb chloride. Soil nitrate for 0-24 inch depth is estimated 22 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 19 K2O = 20 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: 26 lb potassium chloride (0-0-60-50Cl) = 12 lb chloride. Soil nitrate for 0-24 inch depth is estimated 22 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 24 K2O = 25 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: 26 lb potassium chloride (0-0-60-50Cl) = 12 lb chloride. Soil nitrate for 0-24 inch depth is estimated 22 lb/acre nitrate-N. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 35 K2O = 38 AGVISE Band guideline will build P & K test levels to the medium range over several years.