

# SEPTIC CHECK

EXPERT SERVICE. LASTING VALUE. CLEAN WATER

## Septic System Compliance Inspection – Existing System

DATE 5/23/2023

**Property Owner:** John McIntosh  
**Street Address:** 44228 348th Lane  
**City, State, Zip:** Aitkin, MN 56431

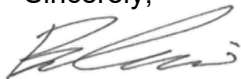
Dear John,

A compliance inspection was performed at the above location. Soil investigations were conducted to determine the seasonal high-water table, the drain field was also inspected to ensure there was no ponding or leakage, and the tanks were pumped and inspected. The system was found to be **compliant**.

- **Impact on Public Health:**  
Compliant; no impact on public health.
- **Tank Integrity:**  
Compliant; tank(s) are functioning at operating level and are protecting the groundwater.
- **Other Compliance Conditions:**  
Compliant; meets conditions of A, B, & C.
- **Soil Separation:**  
Compliant; soil has 2' of vertical separation to saturated soils.
- **Operating Permit and Nitrogen BMP:**  
Operating permit requirements have been met per Ritter Sewer & Excavating on May 19th, 2023. (See attached letter)

I included a copy of the compliance documents and site sketch. Copies were sent to Aitkin County on your behalf. If you have any further questions, please do not hesitate to give us a call. Thank you for your business!

Sincerely,



Brian Koski, Lic. No. 7989  
*President*  
Office: 320-983-2447  
[brian@septiccheck.com](mailto:brian@septiccheck.com)

# SEPTIC CHECK

EXPERT SERVICE. LASTING VALUE. CLEAN WATER

## Disclaimer

The septic system inspection conducted for this property, meets the MN chapter 7082.0700 Subp. 4. Requirements for existing system inspections.

We recommend this system be serviced and inspected at least every 36 months by a septic professional.

Water use in excess of 50% of the design flow of the septic system may lead to premature failure.

This inspection does not guarantee future performance.

Additions to the home or use of the property may require the property owner to increase the system capacity.

**Instructions: Inspector must submit completed form to Local Governmental Unit (LGU) and system owner within 15 days of final determination of compliance or noncompliance.** Instructions for filling out this form are located on the Minnesota Pollution Control Agency (MPCA) website at <https://www.pca.state.mn.us/sites/default/files/wq-wwists4-31a.pdf>.

### Property information

Local tracking number: \_\_\_\_\_

Parcel ID# or Sec/Twp/Range: 01-1-120000 Reason for Inspection Building Permit

Local regulatory authority info: Aitkin County

Property address: 44228 348<sup>th</sup> Lane Aitkin, MN 56431

Owner/representative: John McIntosh Owner's phone: 763-242-1027

Brief system description: 1000 gal septic tank to a Multi-Flo pretreatment unit, to a 1500 gal pump tank time dosing a 10' x38' pressure bed.

### System status

System status on date (mm/dd/yyyy): 5/23/2023

**Compliant – Certificate of compliance\***

*(Valid for 3 years from report date unless evidence of an imminent threat to public health or safety requiring removal and abatement under section 145A.04, subdivision 8 is discovered or a shorter time frame exists in Local Ordinance.)*

**\*Note: Compliance indicates conformance with Minn. R. 7080.1500 as of system status date above and does not guarantee future performance.**

**Noncompliant – Notice of noncompliance**

*Systems failing to protect ground water must be upgraded, replaced, or use discontinued within the time required by local ordinance.*

*An imminent threat to public health and safety (ITPHS) must be upgraded, replaced, or its use discontinued within ten months of receipt of this notice or within a shorter period if required by local ordinance or under section 145A.04 subdivision 8.*

#### Reason(s) for noncompliance (check all applicable)

- Impact on public health (Compliance component #1) – *Imminent threat to public health and safety*
- Tank integrity (Compliance component #2) – *Failing to protect groundwater*
- Other Compliance Conditions (Compliance component #3) – *Imminent threat to public health and safety*
- Other Compliance Conditions (Compliance component #3) – *Failing to protect groundwater*
- System not abandoned according to Minn. R. 7080.2500 (Compliance component #3) – *Failing to protect groundwater*
- Soil separation (Compliance component #5) – *Failing to protect groundwater*
- Operating permit/monitoring plan requirements (Compliance component #4) – *Noncompliant - local ordinance applies*

#### Comments or recommendations

Septic Check performed all areas of the compliance inspection EXCEPT section 4 which was completed by the service provider Ritter Sewer & Excavating. See attached report.

### Certification

*I hereby certify that all the necessary information has been gathered to determine the compliance status of this system. No determination of future system performance has been nor can be made due to unknown conditions during system construction, possible abuse of the system, inadequate maintenance, or future water usage.*

**By typing my name below, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing this form.**

Business name: Septic Check Certification number: 7989

Inspector signature: Brian Koski License number: 2624

*(This document has been electronically signed)* Phone: 320-983-2447

### Necessary or locally required supporting documentation (must be attached)

- Soil observation logs
- System/As-Built
- Locally required forms
- Tank Integrity Assessment
- Operating Permit
- Other information (list): Service provider annual report

## 1. Impact on public health – Compliance component #1 of 5

**Compliance criteria:**

System discharges sewage to the ground surface	<input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No
System discharges sewage to drain tile or surface waters.	<input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No
System causes sewage backup into dwelling or establishment.	<input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No

**Any "yes" answer above indicates the system is an imminent threat to public health and safety.**

**Describe verification methods and results:**

Visual Inspection

**Attached supporting documentation:**

- Other: \_\_\_\_\_
- Not applicable

## 2. Tank integrity – Compliance component #2 of 5

**Compliance criteria:**

System consists of a seepage pit, cesspool, drywell, leaching pit, or other pit?	<input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No
Sewage tank(s) leak below their designed operating depth?	<input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No
If yes, which sewage tank(s) leaks:	

**Any "yes" answer above indicates the system is failing to protect groundwater.**

**Describe verification methods and results:**

Timber Lakes pumped and cleaned the tanks, Septic Check verified that the tanks meet all compliance criteria.

**Attached supporting documentation:**

- Empty tank(s) viewed by inspector
  - Name of maintenance business: Timber Lakes
  - License number of maintenance business: 455
  - Date of maintenance: 5/18/2023
- Existing tank integrity assessment (Attach)
  - Date of maintenance (mm/dd/yyyy): \_\_\_\_\_ (must be within three years)
  - (See form instructions to ensure assessment complies with Minn. R. 7082.0700 subp. 4 B (1))
- Tank is Noncompliant (pumping not necessary – explain below)
- Other: \_\_\_\_\_

### 3. Other compliance conditions – Compliance component #3 of 5

3a. Maintenance hole covers appear to be structurally unsound (damaged, cracked, etc.), or unsecured?

Yes\*  No  Unknown

3b. Other issues (*electrical hazards, etc.*) to immediately and adversely impact public health or safety?  Yes\*  No  Unknown

**\*Yes to 3a or 3b - System is an imminent threat to public health and safety.**

3c. System is non-protective of ground water for other conditions as determined by inspector?

Yes\*  No

3d. System not abandoned in accordance with Minn. R. 7080.2500?

Yes\*  No

**\*Yes to 3c or 3d - System is failing to protect groundwater.**

**Describe verification methods and results:**

Visual inspection.

Attached supporting documentation:  Not applicable

### 4. Operating permit and nitrogen BMP\* – Compliance component #4 of 5 Not applicable

Is the system operated under an Operating Permit?

Yes  No

If "yes", A below is required

Is the system required to employ a Nitrogen BMP specified in the system design?  Yes  No

If "yes", B below is required

*BMP = Best Management Practice(s) specified in the system design*

**If the answer to both questions is "no", this section does not need to be completed.**

**Compliance criteria:**

a. Have the operating permit requirements been met?

Yes  No

b. Is the required nitrogen BMP in place and properly functioning?

Yes  No

**Any "no" answer indicates noncompliance.**

**Describe verification methods and results:**

Documentation from the service provider, Ritter Sewer & Excavating.

Attached supporting documentation:  Operating permit (Attach)

## 5. Soil separation – Compliance component #5 of 5

Date of installation 10/19/2006  Unknown  
(mm/dd/yyyy)

Shoreland/Wellhead protection/Food beverage lodging?  Yes  No

**Compliance criteria (select one):**

5a. For systems built prior to April 1, 1996, and not located in Shoreland or Wellhead Protection Area or not serving a food, beverage or lodging establishment:  Yes  No\*

Drainfield has at least a two-foot vertical separation distance from periodically saturated soil or bedrock.

5b. Non-performance systems built April 1, 1996, or later or for non-performance systems located in Shoreland or Wellhead Protection Areas or serving a food, beverage, or lodging establishment:  Yes  No\*

Drainfield has a three-foot vertical separation distance from periodically saturated soil or bedrock.\*

5c. "Experimental", "Other", or "Performance" systems built under pre-2008 Rules; Type IV or V systems built under 2008 Rules 7080.2350 or 7080.2400 (Intermediate Inspector License required ≤ 2,500 gallons per day; Advanced Inspector License required > 2,500 gallons per day)  Yes  No\*

Drainfield meets the designed vertical separation distance from periodically saturated soil or bedrock.

**Attached supporting documentation:**

- Soil observation logs completed for the report
- Two previous verifications of required vertical separation
- Not applicable (No soil treatment area)
- One Previous Log

**Indicate depths or elevations**

A. Bottom of distribution media	97.65
B. Periodically saturated soil/bedrock	95.40
C. System separation	2.25'
D. Required compliance separation*	18"

\*May be reduced up to 15 percent if allowed by Local Ordinance.

**\*Any "no" answer above indicates the system is failing to protect groundwater.**

**Describe verification methods and results:**

Elevations

**Upgrade requirements:** (Minn. Stat. § 115.55) An imminent threat to public health and safety (ITPHS) must be upgraded, replaced, or its use discontinued within ten months of receipt of this notice or within a shorter period if required by local ordinance. If the system is failing to protect ground water, the system must be upgraded, replaced, or its use discontinued within the time required by local ordinance. If an existing system is not failing as defined in law, and has at least two feet of design soil separation, then the system need not be upgraded, repaired, replaced, or its use discontinued, notwithstanding any local ordinance that is more strict. This provision does not apply to systems in shoreland areas, Wellhead Protection Areas, or those used in connection with food, beverage, and lodging establishments as defined in law.

**AITKIN COUNTY ENVIRONMENTAL SERVICES  
OPERATING PERMIT FOR WASTEWATER  
TREATMENT AND DISPERSAL RENEWAL**

ISSUANCE DATE: 5 /31/2019  
RENEWAL PERIOD: 5 YEAR

OPERATING PERMIT #: 279  
ZONING PERMIT #: 34668  
PARCEL #: 01-1-120000

PERMITTEE: John McIntosh

TELEPHONE:

MAILING ADDRESS:  
44228 348th Lane  
Aitkin, MN 56431

PROPERTY ADDRESS:  
44228 348th Ln.  
Aitkin, MN 56431

LEGAL DESCRIPTION: LOT 45 LESS PART IN DOC 251647 AND PART OF LOT 4

Aitkin County Environmental Services authorizes the Permittee to operate a wastewater treatment and dispersal system located on the above described property in accordance with the requirements of this permit.

This permit is effective on the issuance date identified above.

This permit and the authorization to treat and disperse from the above system is valid through the renewal period identified above. The Permittee is not authorized to discharge after the renewal period. The Permittee shall submit such information and forms as required by Aitkin County Environmental Services no later than thirty (30) days prior to the expiration date. When the required information is submitted and approved by Aitkin County Environmental Services, the permit may be renewed. This permit is not transferable from owner to owner.

**I hereby certify with my signature as the permittee that I understand the provisions of this permit including the maintenance and monitoring requirements. I agree to indemnify and hold Aitkin County harmless from all loss, damages, costs and charges that may be incurred by use of this system and if I fail to comply with the provisions of this Operating Permit. If I sell this property during the life of the permit, I will inform the new owner(s) of the permit requirements and the need to renew the permit.**

  
Signature of Permittee

5/1/19  
Date

  
Signature of Permitting Authority

5-28-19  
Date

If you have any questions regarding this permit, including the specific permit requirements, permit reporting or permit compliance status, please contact Aitkin County Environmental Services at 218-927-7342.

**AITKIN COUNTY ENVIRONMENTAL SERVICES-PLANNING & ZONING**  
**209 Second Street, NW Room# 100**  
**Aitkin, Minnesota 56431**

PH: (218) 927-7342  
FX: (218) 927-4372



5/28/2019

John McIntosh  
44228 348th Lane  
Aitkin, MN 56431

Re: Operating Permit # 279  
Zoning Permit # 34668  
Parcel # 01-1-120000

Dear Permittee:

This letter is to inform you that your Operating Permit has been renewed until 5/31/2024 .

Please adhere to your monitoring and maintenance contract including monitoring your water use. Failure to do so would violate the agreement to operate your system and could void the operating permit. You should contact your Operation and Maintenance provider directly with questions that you may have during the year.

Thank you for your good stewardship and we hope that your system continues to operate well, protecting groundwater for you and the environment.

Sincerely,

Aitkin County Planning & Zoning



SEPTIC SYSTEM REVIEW FOR

John Mcintosh  
Parcel # 01-0-120000  
Operating permit #279

Property located in Aitkin Township

May 19, 2023

The above mentioned property has a multi-flow pre treatment unit on it. On an annual inspection of this system we had found that the aerator motor was not working so we have replaced the aerator motor and checked over all other pumps, floats and alarms in this system and all are operating properly. The socks were also all cleaned at the same time as the motor was replaced. The BOD5, TSS and fecal were all within the standards at the last testing in May of 2019 (the annual testing is not due until May of 2024). The tanks were all pumped and inspected by others on May 18<sup>th</sup> of 2023. The system is all working properly as of our last service date as of May 19, 2023.

Sincerely,



Mark P. Ritter  
Ritter Sewer & Excavating, Inc.

CEDAR LAKE

MAUREEN DeSUTTER  
Parcel# 01-1-120000  
SEPTIC DESIGN  
08/05/2006

**MULTI-FLO AEROBIC TREATMENT SYSTEM  
TIMED DOSED AT MAXIMUM OF 300gpd  
INTO THE 10' x 38' "RAISED" PRESSURE BED  
DOWNSIZED TO 2 BEDROOMS**

6 Inches of Rock

Distribution Device Elev = 98.9  
Bottom of Rocklayer Elev = 99.4

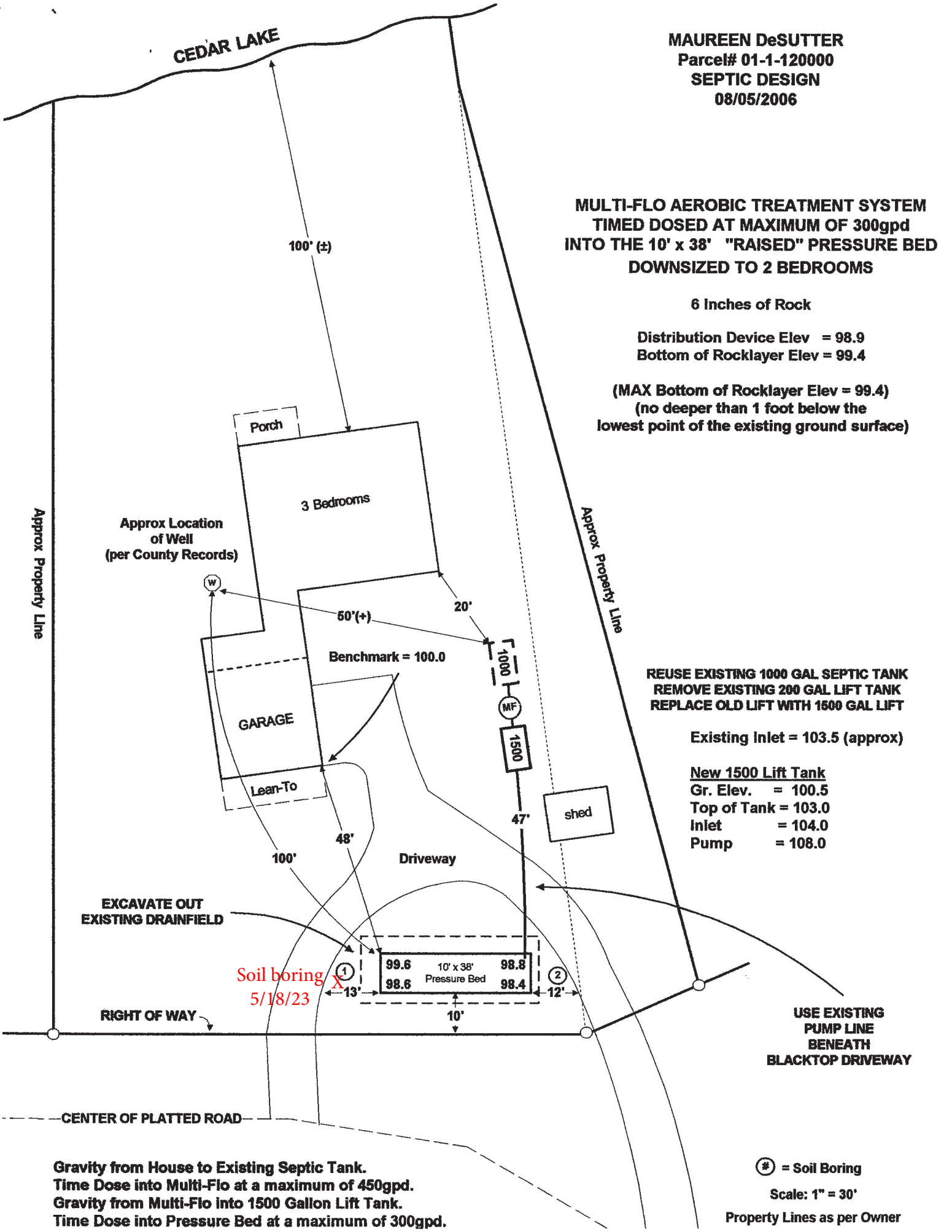
(MAX Bottom of Rocklayer Elev = 99.4)  
(no deeper than 1 foot below the  
lowest point of the existing ground surface)

**REUSE EXISTING 1000 GAL SEPTIC TANK  
REMOVE EXISTING 200 GAL LIFT TANK  
REPLACE OLD LIFT WITH 1500 GAL LIFT**

Existing Inlet = 103.5 (approx)

**New 1500 Lift Tank**  
Gr. Elev. = 100.5  
Top of Tank = 103.0  
Inlet = 104.0  
Pump = 108.0

**USE EXISTING  
PUMP LINE  
BENEATH  
BLACKTOP DRIVEWAY**



**EXCAVATE OUT  
EXISTING DRAINFIELD**

Soil boring X  
5/18/23

RIGHT OF WAY

CENTER OF PLATTED ROAD

Gravity from House to Existing Septic Tank.  
Time Dose into Multi-Flo at a maximum of 450gpd.  
Gravity from Multi-Flo into 1500 Gallon Lift Tank.  
Time Dose into Pressure Bed at a maximum of 300gpd.

⊛ = Soil Boring

Scale: 1" = 30'

Property Lines as per Owner

# SEPTIC CHECK

EXPERT SERVICE. LASTING VALUE. CLEAN WATER

John McIntosh  
44228 348<sup>th</sup> Lane Aitkin, MN 56431  
PID 01-1-120000  
5/18/23




10' x 38' Pressure Bed



Tanks & Multi-Flo

## Soil Observation Log

<b>Soil Verification for:</b>		John McIntosh			<b>Property Address</b>		44228 348th Lane Aitkin, MN 56431				
<b>Soil parent material(s): (Check all that apply)</b>											
<input type="checkbox"/> Outwash <input type="checkbox"/> Lacustrine <input type="checkbox"/> Loess <input checked="" type="checkbox"/> Till <input type="checkbox"/> Alluvium <input type="checkbox"/> Bedrock <input type="checkbox"/> Organic Matter											
<b>Landscape Position: (check one)</b>											
<input type="checkbox"/> Summit <input type="checkbox"/> Shoulder <input type="checkbox"/> Back/Side Slope <input type="checkbox"/> Foot Slope <input checked="" type="checkbox"/> Toe Slope											
<b>Vegetation</b>		Grass		<b>Soil survey map units</b>			504B Duluth Fine Sandy Loam				
<b>Weather Conditions/Time of Day:</b>			Cloudy 8:30am				<b>Date</b>		05/18/23		
<b>Observation #/Location:</b>		Soil Boring 1				<b>Observation Type:</b>		Auger			
Depth (in)	Texture	Rock Frag. %	Matrix Color(s)		Mottle Color(s)		Redox Kind(s)	Indicator(s)	----- Structure-----		
									Shape	Grade	Consistence
0" - 14"	Loam	<5%	10YR	2/2					Granular	Strong	Friable
14" - 26"	Coarse Sand	<5%	10YR	5/4					Single grain	Structureless	Loose
26" - 38"	Fine Sand	<5%	10YR	3/2					Single grain	Structureless	Loose
38" - 40"	Fine Sand	<5%	10YR	5/1	10YR	5/8	Concentrations	S2	Single grain	Structureless	Loose
<b>Comments</b>		Redox present at 38" with an elevation of 95.40									
I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.											
<b>Brian Koski</b>							<b>2624</b>		<b>5/23/2023</b>		
(Designer/Inspector)			(Signature)				(License #)		(Date)		

# SOIL BORING / PIT LOG

PROPERTY OWNER: Maureen DeSutter

PARCEL CODE: 01-1-120000

08/05/2006

<u>Depth</u>	<u>Color</u>	<u>Texture</u>
<b><u>Soil Boring #1</u></b>		
0 - 2	10YR 3/3	Top Soil
2 - 11	7.5YR 5/1	Sand & Rock
11 - 32	7.5YR 6/4	Sand & Rock
32 - 36	10YR 6/1 & 5/8	MOTTLED Sand

<b><u>Soil Boring #2</u></b>		
0 - 2		Top Soil
2 - 20	10YR 7/3	Sandy Loam
20 - 40	10YR 7/2	Fine Sand
36	10YR 5/6	MOTTLED

**NOTE:**

Soils were verified by Becky Sovde that Mottling is at 32 and 36 inches below the ground surface.

## Aitkin County, Minnesota

### 504B—Duluth fine sandy loam, 1 to 6 percent slopes

#### Map Unit Setting

*National map unit symbol:* gjh7

*Elevation:* 980 to 1,640 feet

*Mean annual precipitation:* 25 to 30 inches

*Mean annual air temperature:* 39 to 45 degrees F

*Frost-free period:* 120 to 140 days

*Farmland classification:* All areas are prime farmland

#### Map Unit Composition

*Duluth and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Duluth

##### Setting

*Landform:* Moraines

*Landform position (two-dimensional):* Backslope, summit

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Loamy till

##### Typical profile

*A - 0 to 3 inches:* fine sandy loam

*E,Bw,2BE,2Bt - 3 to 41 inches:* clay loam

*2C - 41 to 60 inches:* loam

##### Properties and qualities

*Slope:* 1 to 6 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water*

*(Ksat):* Moderately low to moderately high (0.06 to 0.60 in/hr)

*Depth to water table:* About 13 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum content:* 5 percent

*Available water supply, 0 to 60 inches:* High (about 10.2 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 2e

*Hydrologic Soil Group:* C/D

*Ecological site:* F090AY015WI - Loamy Upland with Carbonates

*Forage suitability group:* Sloping Upland, Acid (G090AN006MN)

*Other vegetative classification:* Sloping Upland, Acid  
(G090AN006MN)

*Hydric soil rating:* No

**Minor Components**

**Mahtowa and similar soils**

*Percent of map unit:* 3 percent

*Landform:* Depressions

*Hydric soil rating:* Yes

**Blackhoof and similar soils**

*Percent of map unit:* 3 percent

*Landform:* Depressions

*Hydric soil rating:* Yes

**Rifle and similar soils**

*Percent of map unit:* 3 percent

*Landform:* Bogs

*Hydric soil rating:* Yes

**Cromwell and similar soils**

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

**Cutaway and similar soils**

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

**Dusler and similar soils**

*Percent of map unit:* 2 percent

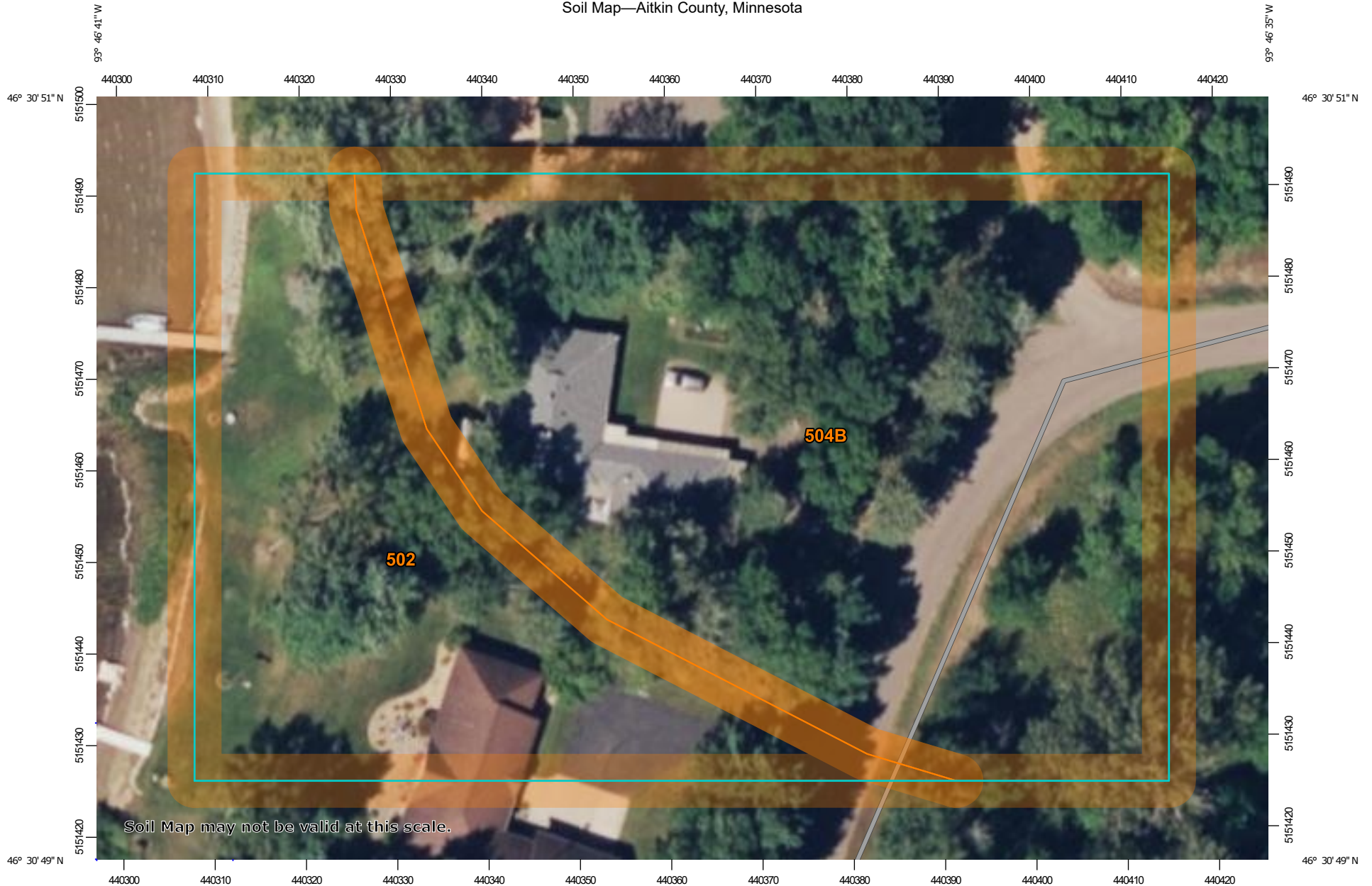
*Hydric soil rating:* No

**Data Source Information**

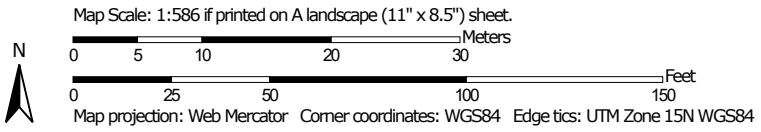
Soil Survey Area: Aitkin County, Minnesota

Survey Area Data: Version 23, Sep 6, 2022

Soil Map—Aitkin County, Minnesota



Soil Map may not be valid at this scale.






## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Aitkin County, Minnesota

Survey Area Data: Version 23, Sep 6, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 13, 2021—Aug 14, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
502	Dusler silt loam	0.6	33.9%
504B	Duluth fine sandy loam, 1 to 6 percent slopes	1.2	66.1%
<b>Totals for Area of Interest</b>		<b>1.8</b>	<b>100.0%</b>