

# ZIERKE SOIL TESTING

Julie Wissinger  
951 Nason Hill Rd  
Marine on St Croix, MN 55047

9/1/2022

Dear Julie Wissinger,

At your request, I have conducted a septic inspection to determine the compliance status of your septic system pursuant to Minnesota Rules Chapter 7080.1500.

The compliance test set out in 7080.1500 has three main inquiries: 1). Is the system functioning hydraulically (disposing of effluent in a manner that prevents it from coming in contact with people)? 2). Are the septic tanks water tight? 3). Does the system have sufficient vertical separation between the bottom of the septic system and restrictive layers (bedrock, standing water, seasonally wet layers, etc) to provide full treatment of effluent?

Based off of these criteria, your septic system is compliant. A certification of compliance is in effect for three years from the date it is issued. To be clear, this should not be construed as a guarantee of future system function – there are too many factors that influence the lifespan of a septic system for an inspector to predict or even guess how long a septic system will last. A copy of this report will be filed with your local unit of government for their records.

Sincerely,



Benjamin Zierke  
MPCA Lic 119, Cert 9594

ADDRESS:  
28587 Jeffrey Ave  
Chisago City, MN 55013

PHONE 651-249-1346  
EMAIL benzierke@gmail.com

**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: 1303120120006 Reason for Inspection Sale

Local regulatory authority info: Washington County

Property address: 951 Nason Hill Rd Marine on St Croix, MN 55047

Owner/representative: Julie Wissinger Owner's phone: (612) 812-1987

Brief system description: Pre-cast septic tank, pre-cast lift tank, gravity rock trench drainfield

### System status

System status on date (mm/dd/yyyy): 9/1/2022

**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

City of Marine on St Croix has operated this septic system for its lifespan - estimated construction is 1987. The city reports that the laterals were recently jetted, otherwise the system has functioned normally.

### 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: Zierke Soil Testing Certification number: 9594

Inspector signature: Benjamin Zierke License number: 119

*(This document has been electronically signed)*

Phone: 651-249-1346

### 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): \_\_\_\_\_

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

### Compliance criteria:

System discharges sewage to the ground surface  Yes\*  No

System discharges sewage to drain tile or surface waters.  Yes\*  No

System causes sewage backup into dwelling or establishment.  Yes\*  No

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

### Describe verification methods and results:

None of the above observed during site visit 8/25/2022.

### 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?  Yes\*  No

Sewage tank(s) leak below their designed operating depth?  Yes\*  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:

See attached tank integrity report.

### Attached supporting documentation:

Empty tank(s) viewed by inspector

Name of maintenance business: Smilies

License number of maintenance business: 2428

Date of maintenance: 8/12/2022

Existing tank integrity assessment (Attach)

Date of maintenance (mm/dd/yyyy): 8/12/2022  
(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:**

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:**

Attached supporting documentation:  Operating permit (Attach)

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

Date of installation 1987  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)
- \_\_\_\_\_

**Indicate depths or elevations**

A. Bottom of distribution media	97.3'
B. Periodically saturated soil/bedrock	93.7' (see notes)
C. System separation	3.6'
D. Required compliance separation*	2.0'

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

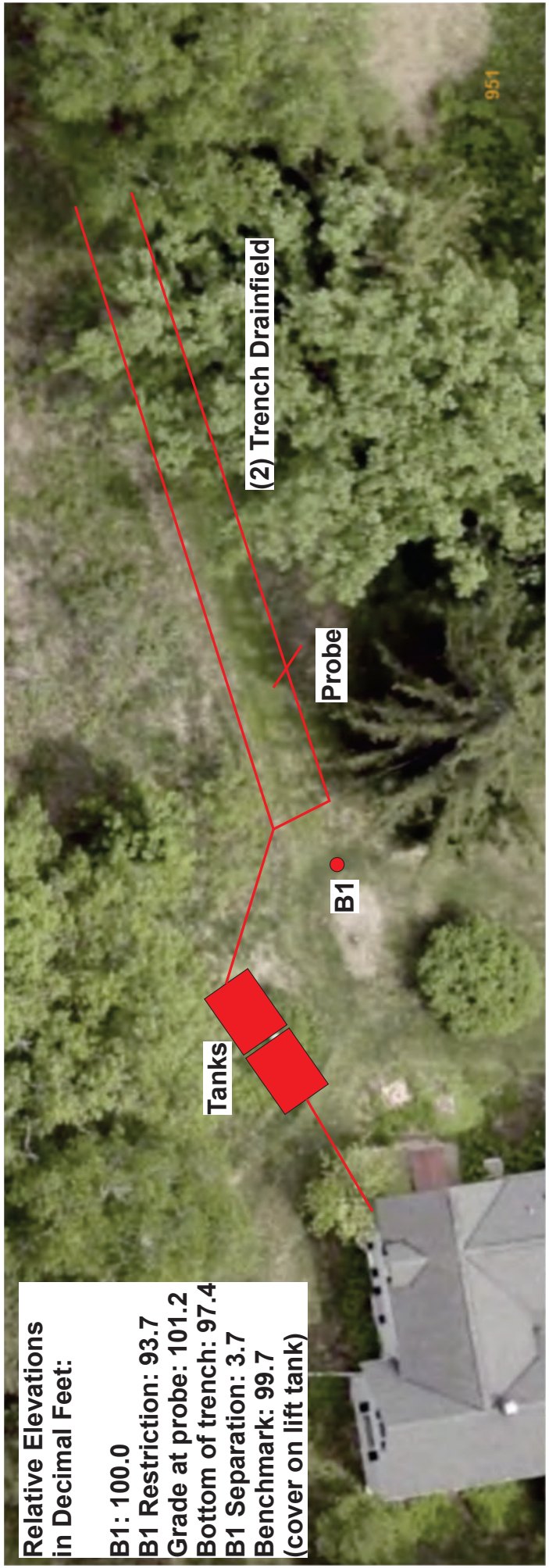
**\*Any "no" answer above indicates the system is failing to protect groundwater.**

**Describe verification methods and results:**

Top 32" have >50% rock, separation credit 44"

**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.

**Relative Elevations  
in Decimal Feet:**  
B1: 100.0  
B1 Restriction: 93.7  
Grade at probe: 101.2  
Bottom of trench: 97.4  
B1 Separation: 3.7  
Benchmark: 99.7  
(cover on lift tank)



**Tanks**

**B1**

**Probe**

**(2) Trench Drainfield**

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## Logs of Soil Borings

Location of Project: 951 Nason Hill Rd Marine on St Croix, MN 55047

Borings Made by Ben Zierke

Date:

8/25/2022

Hand bucket auger used for borings; USDA - SCS Soil Classification used.

Depth, in Inches	Boring Number 1	Depth, in Inches	Boring Number 2
0-----	-----	0-----	-----
0-8"	10YR 3/2 coarse sand, 51% rock		
8-32"	10YR 4/4 coarse sand, 51% rock		
32-53"	10YR 4/4 coarse sand, 10% rock		
53-64"	10YR 7/3 fine sand, 1% rock		
64-76"	10YR 4/4 coarse sand, 10% rock		

End of boring at 6.3 feet

**Standing water table:**

Present at \_\_\_\_\_ feet of depth \_\_\_\_\_ Hours after boring

Standing water not present in hole

**Mottled Soil:**

Observed at \_\_\_\_\_ feet of depth

Mottled soil not present in bore hole

Comments:

End of boring at \_\_\_\_\_ feet

**Standing water table:**

Present at \_\_\_\_\_ feet of depth \_\_\_\_\_ Hours after boring

Standing water not present in hole

**Mottled Soil:**

Observed at \_\_\_\_\_ feet of depth

Mottled soil not present in bore hole

Comments:

Depth, in Inches	Boring Number 3	Depth, in Inches	Boring Number 4
0-----	-----	0-----	-----

End of boring at \_\_\_\_\_ feet

**Standing water table:**

Present at \_\_\_\_\_ feet of depth \_\_\_\_\_ Hours after boring

Standing water not present in hole

**Mottled Soil:**

Observed at \_\_\_\_\_ feet of depth

Mottled soil not present in bore hole

Comments:

End of boring at \_\_\_\_\_ feet

**Standing water table:**

Present at \_\_\_\_\_ feet of depth \_\_\_\_\_ Hours after boring

Standing water not present in hole

**Mottled Soil:**

Observed at \_\_\_\_\_ feet of depth

Mottled soil not present in bore hole

Comments:

# Tank Integrity and Safety Compliance



System Status:  Compliant  Noncompliant  
(as determined by this form)

Date of observation: 8/12/2022 Reason for observation: Sale of house

This form expires on (three years): 8/12/2025

Number of tanks: 2

### Compliance Questions/Criteria (required):

(Check the appropriate box)

Does the system consist of a seepage pit\*, cesspool, drywell, or leaching pit?  Yes  No

Do any sewage tank(s) leak below their designed operating depth?  Yes  No

If yes, identify which sewage tank leaks.

Any "yes" answer indicates that the system is failing to protect ground water.

\*Seepage pits meeting 7080.2550 may be compliant if allowed in ordinance by local permitting authority.

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Verification Method\*\*(optional):

(Check the appropriate box)

- Probed tank bottom
- Observed low liquid level
- Examined construction records
- Examined empty (pumped) tank
- Probed outside tank for "black soil"
- Pressure/vacuum check
- Other \_\_\_\_\_

\*\*No standard protocol exists. This list is not exhaustive, in sequential order, nor does it indicate which combinations are necessary to make this determination.

### Safety Check

- 1. Are maintenance hole covers damaged, cracked, or appear to be structurally unsound?  Yes\*  No
- 2. Were maintenance hole covers replaced in a secured manner (e.g., screws replaced)?  Yes  No\*
- 3. Was secondary access restraint present (safety pan, second cover, or safety netting) – highly recommended.  Yes  No
- 4. Are other safety/health issues present?  Yes\*  No

Explain: \_\_\_\_\_  
\*System is an imminent threat to public health and safety.

### Certification

This form is to be completed and attached to the Summary Form of the Minnesota Pollution Control Agency's (MPCA) **Compliance Inspection Form for Existing Subsurface Sewage Treatment Systems**. Observations, interpretations, and conclusions must be completed by an inspector, maintainer, or service provider. Completed form must be submitted to the local unit of government within 15 days.

Property owner name(s): \_\_\_\_\_

Property address: 951 Nason Hill Rd N Marine

Property owner's address (if different): \_\_\_\_\_

County: Wash Property owner phone: \_\_\_\_\_

I hereby certify that I personally made the observations, interpretations, and conclusions report on this form and that they are correct.

Name: Keith Valento Certification number: 6457

Business license name and number: Smilie's Sewer Service 2428 or

Name of local unit of government: City of Marine

Signature: [Signature] Date: 8/12/2022