# ZIERKE SOIL TESTING

Mike Sullivan
10025 Indigo Trl N
White Bear Lake, MN 55110

8/27/2019

Dear Mike Sullivan,

At your request, I have conducted a septic inspection to determine the compliance status of your 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 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. I do strongly recommend replacing the septic tank baffles that are no longer functional. A copy of this report will be filed with your local unit of government for their records.

Sincerely,

Benjamin Zierke

ADDRESS:
28587 Jeffrey Ave
Chisago City, MN 55013

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

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

# Compliance Inspection Form

## Existing Subsurface Sewage Treatment Systems (SSTS)

*Doc Type: Compliance and Enforcement*

**Inspection results** based on Minnesota Pollution Control Agency (MPCA) requirements and attached forms – additional local requirements may also apply.

**Submit completed form to Local Unit of Government (LUG) and system owner within 15 days**

For local tracking purposes:

## System Status

**System status on date (mm/dd/yyyy):** 8/27/2019

☒ **Compliant – Certificate of Compliance**
*(Valid for 3 years from report date, unless shorter time frame outlined in Local Ordinance.)*

☐ **Noncompliant – Notice of Noncompliance**
*(See Upgrade Requirements on page 3.)*

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

- ☐ Impact on Public Health *(Compliance Component #1) – Imminent threat to public health and safety*
- ☐ Other Compliance Conditions *(Compliance Component #3) – Imminent threat to public health and safety*
- ☐ Tank Integrity *(Compliance Component #2) – Failing to protect groundwater*
- ☐ Other Compliance Conditions *(Compliance Component #3) – Failing to protect groundwater*
- ☐ Soil Separation *(Compliance Component #4) – Failing to protect groundwater*
- ☐ Operating permit/monitoring plan requirements *(Compliance Component #5) – Noncompliant*

## Property Information

Parcel ID# or Sec/Twp/Range:

Property address: 10025 Indigo Trail White Bear Lake, MN 55110 Reason for inspection: Sale

Property owner: Mike Sullivan Owner's phone: 651-983-4812

**or**

Owner's representative: Representative phone:

Local regulatory authority: Washington County Regulatory authority phone: 651-430-6655

Brief system description: 1200 gallon septic tank, gravity rock trench drainfield

**Comments or recommendations:**

Tank baffles need to be replaced - both baffles were off during site visit 8/9/2019. Strongly recommend doing this as soon as possible, as lack of baffles can lead to premature system failure.

## 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.*

Inspector name: Benjamin Zierke Certification number: C9594

Business name: Zierke Soil Testing License number: L119

Inspector signature: Phone number: 651-249-1346

## Necessary or Locally Required Attachments

☒ Soil boring logs ☒ System/As-built drawing ☐ Forms per local ordinance

☐ Other information (list):

Property address: 10025 Indigo Trail White Bear Lake, MN 55110 Inspector initials/Date: BZ | 8/27/2019 (mm/dd/yyyy)

## 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.***

**Verification method(s):**

- ☒ Searched for surface outlet
- ☒ Searched for seeping in yard/backup in home
- ☐ Excessive ponding in soil system/D-boxes
- ☐ Homeowner testimony *(See Comments/Explanation)*
- ☐ "Black soil" above soil dispersal system
- ☐ System requires "emergency" pumping
- ☐ Performed dye test
- ☐ Unable to verify *(See Comments/Explanation)*
- ☐ Other methods not listed *(See Comments/Explanation)*

**Comments/Explanation:**

No signs of ponding on leakage observed 8/27/2019.

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

| Compliance criteria: | |
|---|---|
| System consists of a seepage pit, cesspool, drywell, or leaching pit.<br>*Seepage pits meeting 7080.2550 may be compliant if allowed in local ordinance.* | ☐ Yes ☒ No |
| Sewage tank(s) leak below their designed operating depth.<br>If yes, which sewage tank(s) leaks: | ☐ Yes ☒ No |

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

**Verification method(s):**

- ☐ Probed tank(s) bottom
- ☐ Examined construction records
- ☐ Examined Tank Integrity Form *(Attach)*
- ☐ Observed liquid level below operating depth
- ☒ Examined empty (pumped) tanks(s)
- ☐ Probed outside tank(s) for "black soil"
- ☐ Unable to verify *(See Comments/Explanation)*
- ☐ Other methods not listed *(See Comments/Explanation)*

**Comments/Explanation:**

Present for pumping by Smilies Sewer 8/9/2019. Tank in wateright condition, baffles no longer functioning.

## 3. Other Compliance Conditions – Compliance component #3 of 5

a. Maintenance hole covers are damaged, cracked, unsecured, or appear to be structurally unsound. ☐ Yes* ☒ No ☐ Unknown

b. Other issues *(electrical hazards, etc.)* to immediately and adversely impact public health or safety. ☐ Yes* ☒ No ☐ Unknown
***System is an imminent threat to public health and safety.***

**Explain:**

c. System is non-protective of ground water for other conditions as determined by inspector . ☐ Yes* ☒ No
***System is failing to protect groundwater.***

**Explain:**

## 4. Soil Separation – Compliance component #4 of 5

**Date of installation:** 10/21/1987 (mm/dd/yyyy) ☐ Unknown

**Shoreland/Wellhead protection/Food beverage lodging?** ☐ Yes ☒ No

**Compliance criteria:**

| | |
|---|---|
| *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:* Drainfield has at least a two-foot vertical separation distance from periodically saturated soil or bedrock. | ☒ Yes ☐ No |
| *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:* Drainfield has a three-foot vertical separation distance from periodically saturated soil or bedrock.* | ☐ Yes ☐ No |
| *"Experimental", "Other", or "Performance" systems built under pre-2008 Rules; Type IV or V systems built under 2008 Rules (7080. 2350 or 7080.2400* (Advanced Inspector License required) Drainfield meets the designed vertical separation distance from periodically saturated soil or bedrock. | ☐ Yes ☐ No |

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

**Verification method(s):**

*Soil observation does not expire. Previous soil observations by two independent parties are sufficient, unless site conditions have been altered or local requirements differ.*

☒ Conducted soil observation(s) *(Attach boring logs)*
☐ Two previous verifications (A*ttach boring logs)*
☐ Not applicable *(Holding tank(s), no drainfield)*
☐ Unable to verify *(See Comments/Explanation)*
☐ Other *(See Comments/Explanation)*

**Comments/Explanation:**

Boring logs from lot split and original design also on file with Washington County.

**Indicate depths or elevations**

| | |
|---|---|
| A. Bottom of distribution media | 97.1' |
| B. Periodically saturated soil/bedrock | 95.0' |
| C. System separation | 2.1'+ |
| D. Required compliance separation* | 2.0' |

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

## 5. Operating Permit and Nitrogen BMP* – Compliance component #5 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? ☐ 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. Operating Permit number: _____ 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.***

**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.*

# Logs of Soil Borings

Location of Project: 10025 Indigo Trl White Bear Lake, MN 55110

Borings Made by Ben Zierke Date: 8/9/2019

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

| Depth, in Inches | Boring Number 1 |
|---|---|
| 0---------- | ---------- |
| 0-18" | 10YR 3/3 loamy sand 0-10% coarse fragments |
| 18-30" | 10YR 4/3 loamy sand 10-15% coarse fragments |
| 30-60" | 10YR 4/4 loamy sand 25-30% coarse fragments |
| 60" | Obstruction |

End of boring at 5 feet

**Standing water table:**

Present at feet of depth Hours after boring

Standing water not present in hole [X]

**Mottled Soil:**

Observed at feet of depth

Mottled soil not present in bore hole [X]

Comments:

| Depth, in Inches | Boring Number 2 |
|---|---|
| 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:

| Depth, in Inches | Boring Number 3 |
|---|---|
| 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:

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

End of boring at feet

**Standing water table:**

Present at feet of depth Hours after boring

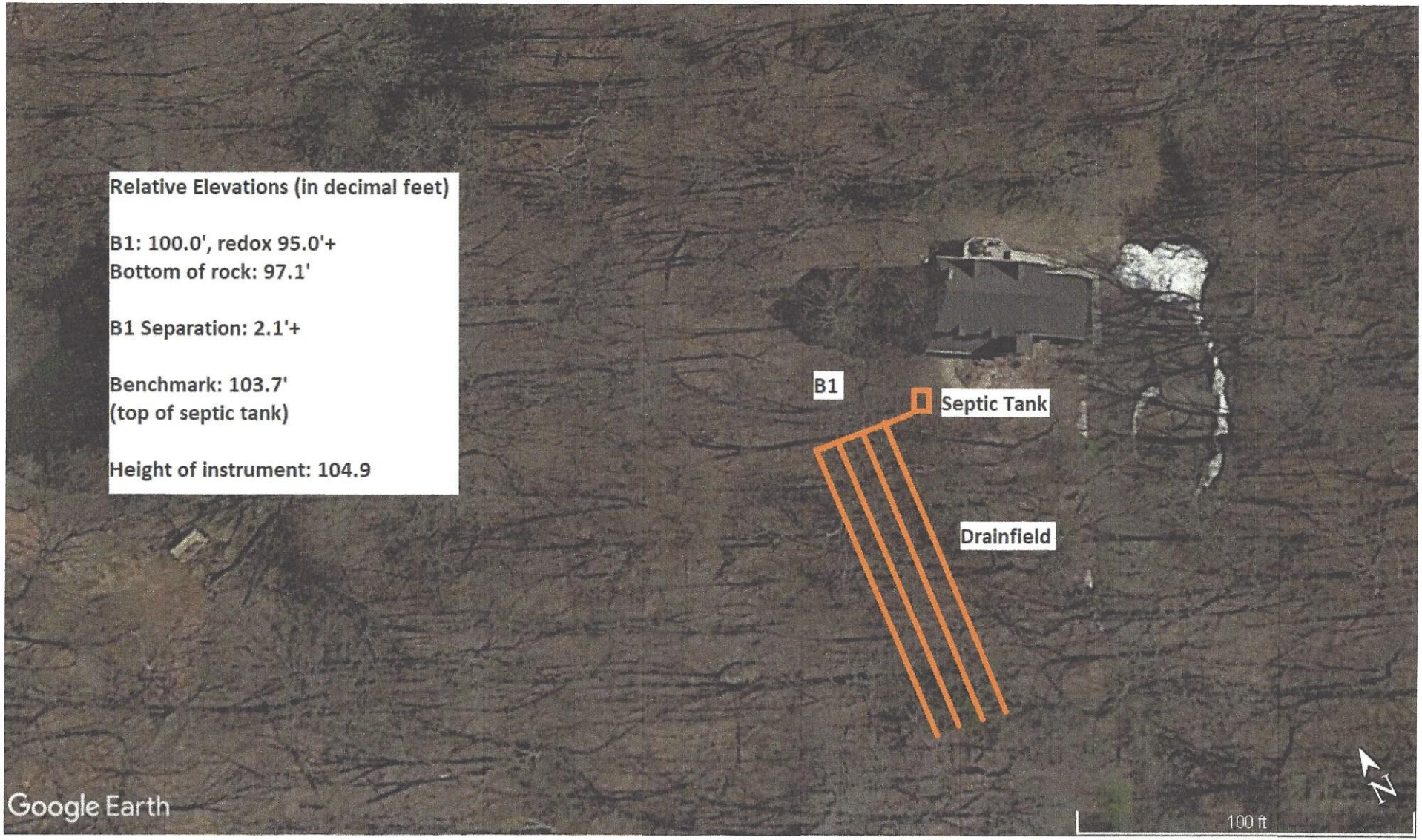
Standing water not present in hole [ ]

**Mottled Soil:**

Observed at feet of depth

Mottled soil not present in bore hole [ ]

Comments:


Relative Elevations (in decimal feet)
B1: 100.0', redox 95.0'+
Bottom of rock: 97.1'
B1 Separation: 2.1'+
Benchmark: 103.7'
(top of septic tank)
Height of instrument: 104.9
B1
Septic Tank
Drainfield
Google Earth
100 ft
N