## ZIERKE SOIL TESTING

Lane Browne 20490 July Ave N Forest Lake, MN 55025

July 5th, 2021

Dear Lane Browne,

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 system is <u>non-compliant</u> due to two blocky style septic tanks and lack of vertical separation between the bottom of your drain field and indicators of seasonally wet soil (redoximorphic features). Therefore, this system is considered "failing to protect groundwater" and <u>is not considered an imminent threat to public health</u>. I am required to provide copies of this report to you and to Washington County. You should contact them as to the next steps that will be required to bring the system into compliance.

Sincerely,

Benjamin Zierke

MPCA Lic 119, Cert 9594

ADDRESS: 28587 Jeffrey Ave Chisago City, MN 55013

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



520 Lafayette Road North St. Paul, MN 55155-4194

# Compliance inspection report form

### **Existing Subsurface Sewage Treatment System (SSTS)**

Doc Type: Compliance and Enforcement

Instructions: Inspection results based on Minnesota Pollution Control Agency (MPCA) requirements and attached supporting documentation - additional local requirements may also apply. Further information can be found here: https://www.pca.state.mn.us/sites/default/files/wq-wwists4-31a.pdf.

Inspector must submit completed form to Local Governmental Unit (LGU) and system owner within 15 days of final determination of compliance or noncompliance.

| Property information   | Local tracking number:   |
|--|--|
|  | I regulatory authority: Washington County  |
| Property address: 20490 July Ave N Forest Lake, MN 55025   |  |
| Owner/representative: Lane Browne  | Owner's phone:   |
| Brief system description: Block tank with bottom, block tank with no   | bottom, rock trench drainfield   |
| System status  |  |
| System status on date (mm/dd/yyyy): _7/5/2021  | N. C.  |
| ☐ Compliant – Certificate of compliance*   | Noncompliant − Notice of noncompliance   |
| (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. | 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.  Systems failing to protect ground water must be upgraded, replaced, or use discontinued within the time required by local ordinance. |
| Soil separation (Compliance component #5) – Failing to   | protect groundwater<br>#3) – Imminent threat to public health and safety<br>#3) – Failing to protect groundwater<br>00 (Compliance component #3) – Failing to protect groundwater  |
| Certification  |  |
| abuse of the system, inadequate maintenance, or future water usag<br>By typing my name below, I certify the above statements to be true  | ade due to unknown conditions during system construction, possible e.  |
| can be used for the purpose of processing this form.   | Cartification number: 0504   |
| Business name: Zierke Soil Testing   | Certification number: 9594 License number: 119   |
| Inspector signature: (This accument has been electronically signed)  | Phone: 651-249-1346  |
| 0 –  |  |
| Necessary or locally required supporting docu  | IMENTATION (must be attached)  |
| <ul><li>☑ Soil observation logs</li><li>☑ Locally required forms</li><li>☑ Other information (list):</li><li>Site sketch</li></ul>   | ☐ Tank Integrity Assessment ☐ Operating Permit   |
| https://www.pca.state.mn.us • 651-296-6300 • 800-657-3864  | Use your preferred relay service   |

#### 1. Impact on public health – Compliance component #1 of 5 Attached supporting documentation: Compliance criteria: ☐ Yes\* ⊠ No Other: System discharges sewage to the ground surface System discharges sewage to drain ☐ Yes\* ⋈ No tile or surface waters. ☐ Yes\* ⊠ No System causes sewage backup into dwelling or establishment. Any "yes" answer above indicates the system is an imminent threat to public health and safety. Describe verification methods and results: No sign of surface discharge or backup observed during site visits 6/28/2021 and 7/1/2021. 2. Tank integrity – Compliance component #2 of 5 Attached supporting documentation: Compliance criteria: Pumped at time of inspection System consists of a seepage pit, cesspool, drywell, leaching pit, **Smilies** or other pit? Name of maintenance business: Sewage tank(s) leak below their Yes<sup>\*</sup> □ No License number of maintenance business: 2428 designed operating depth? 6/28/2021 Date of maintenance: Existing tank integrity assessment (Attach) Date of maintenance (mm/dd/yyyy): (must be within three years) If yes, which sewage tank(s) leaks: (See form instructions to ensure assessment complies with Any "yes" answer above indicates the system Minn. R. 7082.0700 subp. 4 B (1)) is failing to protect groundwater. Tank is Noncompliant (pumping not necessary – explain below) Other: Describe verification methods and results: Present for pumping by Smillies Sewer 6/28/2021. First tank does not have legal manhole access and appeared to be a block style tank (lowered camera into tank). Second tank also does not have legal manhole access, is a block style tank, and did not have a solid bottom.

| 3. | Other compliance conditions – Compliance component #3 of 5  |  |
|----|---|--|
|    | 3a. Maintenance hole covers appear to be structurally unsound (damaged, cracked, etc.), or unsec ☐ Yes* ☒ No ☐ Unknown  | cured?   |
|    | 3b. Other issues (electrical hazards, etc.) to immediately and adversely impact public health or safety *Yes to 3a or 3b - System is an imminent threat to public health and safety.  | ? ☐ Yes* ⊠ No ☐ Unknown                                      |
|    | 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   |  |
|    | Attached supporting documentation. M Not applicable   |  |
| 4. | Operating permit and nitrogen BMP* – Compliance component #4 or   | f 5 Not applicable   |
|    | operating permit and merogen bits   | 19 Miles applicable  |
|    |   | f "yes", A below is required                                 |
|    |   | f "yes", A below is required                                 |
|    | Is the system operated under an Operating Permit?  Is the system required to employ a Nitrogen BMP specified in the system design?   BMP = Best Management Practice(s) specified in the system design   | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?  Is the system required to employ a Nitrogen BMP specified in the system design?   Yes  No I  | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?  Is the system required to employ a Nitrogen BMP specified in the system design?   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:   | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?  Is the system required to employ a Nitrogen BMP specified in the system design?  Yes No 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?  | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?  Is the system required to employ a Nitrogen BMP specified in the system design?   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?  Description:  Yes No  No  Is the required nitrogen BMP in place and properly functioning?  Yes No | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?  Is the system required to employ a Nitrogen BMP specified in the system design?  Yes No 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?  | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?  Is the system required to employ a Nitrogen BMP specified in the system design?   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?  Description:  Yes No  No  Is the required nitrogen BMP in place and properly functioning?  Yes No | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?   | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?   | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?   | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?   | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?   | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?   | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?   | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?   | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?   | f "yes", A below is required<br>f "yes", B below is required |
|    | Is the system operated under an Operating Permit?   | f "yes", A below is required f "yes", B below is required    |

#### **5. Soil separation** – Compliance component #5 of 5 Date of installation 1978 Unknown (mm/dd/yyyy) Shoreland/Wellhead protection/Food ☐ Yes ⊠ No Attached supporting documentation: beverage lodging? Soil observation logs completed for the report (Attach) Two previous verifications of required vertical Compliance criteria (select one): separation (Attach) ☐ Yes ☐ No\* 5a. For systems built prior to April 1, 1996, Not applicable (No soil treatment area) 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. 5b. Non-performance systems built April 1, ☐ Yes ☐ No\* Indicate depths or elevations 1996, or later or for non-performance A. Bottom of distribution media 97.0' systems located in Shoreland or Wellhead Protection Areas or serving a food, B. Periodically saturated soil/bedrock 98.0' beverage, or lodging establishment: -1.0' C. System separation Drainfield has a three-foot vertical D. Required compliance separation\* 2.0' separation distance from periodically saturated soil or bedrock.\* \*May be reduced up to 15 percent if allowed by Local Ordinance. 5c. "Experimental", "Other", or "Performance" ☐ Yes ☐ No\* 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

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

Describe verification methods and results:

separation distance from periodically

saturated soil or bedrock.

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.

# Washington County, MN



### **Logs of Soil Borings**

Location of Project:

20490 July Ave N Forest Lake, MN 55025

Borings Made by Ben Zierke

Date:

7/1/2021

Soil Pit Observation used for borings; USDA - SCS Soil Classification used.

| Depth, in<br>Inches<br>0  | Boring Number 1  | Depth, in Inches  | Boring Number 2  |
|---|--|---|--|
| 0-8"  | 10YR 3/3 loamy fine sand   |   |  |
| 8-28"   | 10YR 4/4 loamy fine sand   |   |  |
| 28-40"  | 10YR 4/6 loamy fine sand lamellae layer,<br>moderately cemented, redox<br>present below 28" (7.5YR 5/8<br>concentration, 10YR 6/2 depletion) |   |  |
| End of boring at Standing water tab Present at Standing water not p Mottled Soil: Observed at Mottled soil not pres Comments: | feet of depth Hours after boring  2.3 feet of depth  2.4 feet of depth   | End of boring at Standing water tab Present at Standing water not p Mottled Soil: Observed at Mottled soil not pres Comments: | feet of depth Hours after boring bresent in hole feet of depth |
| Depth, in<br>Inches   | Boring Number 3  | Depth, in<br>Inches   | Boring Number 4  |
| O End of boring at  |  | 0   |  |
|   | feet   | End of boring at  | feet   |