

ZIERKE SOIL TESTING

Angela Carter
9685 228th St N
Scandia, MN 55073

4/26/2024

Dear Angela Carter,

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

Benjamin Zierke
MPCA Lic 119, Cert 9594

ADDRESS:
28587 Jeffrey Ave
Chisago City, MN 55013

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

Compliance inspection report form

Existing Subsurface Sewage Treatment System (SSTS)

Doc Type: Compliance and Enforcement

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: 1203221240001 Reason for Inspection Sale

Local regulatory authority info: Washington County

Property address: 9685 228th St N Scandia, MN 55073

Owner/representative: Angela Carter Owner's phone: 952-657-8477

Brief system description: (2) 1000 gallon septic tanks, 1000 gallon lift tank, mound dispersal system

System status

System status on date (mm/dd/yyyy): 4/26/2024

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

No issues observed with system, Angela reported no past issues with the system.

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): Previous soil observations

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

Attached supporting documentation:

Other: _____
 Not applicable

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.

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.

Attached supporting documentation:

Empty tank(s) viewed by inspector
 Name of maintenance business: Smilies
 License number of maintenance business: 2428
 Date of maintenance: 4/25/2024
 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: _____

Describe verification methods and results:

Present for pumping with Smilies Sewer. Tanks water tight and baffles in place.

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 2014 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	102.6'
B. Periodically saturated soil/bedrock	99.0'
C. System separation	3.6'
D. Required compliance separation*	3.0'

*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:

See attached boring log and 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.

**Relative Elevations
in Decimal Feet:**

B1: 100.0

B1 Redox: 99.0

Bottom of rock: 102.6

B1 Separation: 3.6

**Benchmark: 101.9
(cover on lift tank)**



Logs of Soil Borings

Location of Project: 9685 228th St N Scandia, MN 55073

Borings Made by Ben Zierke

Date:

4/25/2024

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-----	-----
0-13"	10YR 3/2 fine sandy loam		
13-16"	10YR 5/3 fine sandy loam, 7.5YR 5/6 and 10YR 6/1 redox 12" of separation credit		

End of boring at 1.3 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:



Department of Public Health and Environment

14949 62nd Street North PO Box 6
Stillwater MN 55082-0006
Office: 651-430-6655 TTY: 651-430-6246 Fax: 651-430-6730

Review Fee:	\$290.00
Permit Fee:	\$485.00
Total Fee:	\$775.00
Previous Payment	\$775.00
Balance Due	\$0.00

Community: Forest Lake City
 Permit Number: 0600-14-16
 Owner: Mark & Angela Carter
 9685 228th ST N
 Scanida MN 55073-
 Applicant: Mark & Angela Carter

PERMISSION IS HEREBY GRANTED

To execute the work specified in this permit on the following identified property upon express condition that said persons and their agents, and employees shall conform in all respects to the provisions of Ordinance #179, Washington County Development Code, Chapter Four, Subsurface Sewage Treatment System Regulations. This permit may be revoked at any time upon violation of any of the provisions of said ordinance.

Project Address: 9685 228th ST N
 Geo Code: 12-032-21-24-0001
 Designer: Zierke Soil Testing

Type of System: Mound		Pressure Distribution	
		Number Of Laterals:	3
Design Criteria	Mound Sizing	Perforation Spacing:	3 Feet
Percolation Rate: 9	Rock Bed Width: 10 Feet	Perforation Diameter:	1/4 Inch
Depth To Restriction: 18	Rock Bed Length: 45 Feet	Head Size:	1.0 Inch
Land Slope: 3.00%	Absorption Width: 15 Feet	Total Head:	13.12875
Flow Rate: 450	Depth of Clean Sand: 18 Inches	Connection:	End
Number of Bedrooms: 3	Downslope Dike Width: 15 Feet	Length of Laterals:	43 Feet
	Upslope Dike: 12 Feet	Perforations / Lateral:	15
	Length of Dike: 69 Feet	Total Perforations:	45
Tank Sizes		Gallons Per Minute:	33.3
Tank 1: 1000	Tank 2: 1000	Lateral Diameter:	1.5 Inches
Tank 3: 0	Lift Station: 1000		

Authorized Work/Special Conditions

1. Effluent Filter with Alarm Required
2. Keep mound out of swale to East.
3. Pressure laterals must have cleanouts to grade.

Permit Issue Date: 10/27/2014
 Permit Expiration Date: 10/27/2015


 Pete Ganzel
 Senior Environmental Specialist

LOGS OF SOIL BORINGS

Location of Project Mark Carter, Lot 1, Block 2, Valley Hills, Sec. 12, City of Forest Lake, Washington Co.

Borings Made by Chris Zierke

Date: 10/31/13

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

Depth, In Feet	Boring Number 1
0-----	
0-6"	Dark-brown sandy loam(10YR-3/3)
6-12"	Dark yellowish-brown sandy loam(10YR-4/4)
12-24"	Yellowish-brown clay loam(10YR-5/4), iron-stains & light-gray mottles below 20"

End of boring at 2 feet.

Standing water table:

Present at feet of depth, hours after boring.

Standing water not present in hole .

Mottled Soil:

Observed at 20" feet of depth.

Mottled soil not present in bore hole .

Comments:

Depth, In Feet	Boring Number 2
0-----	
0-6"	Dark-brown sandy loam(3/3)
6-12"	Dark y-brown sandy loam(4/4)
12-24"	Dark yellowish-brown clay loam(10YR-4/4), iron-st. & light-gray mottles below 18"

End of boring at 2 feet.

Standing water table:

Present at feet of depth, hours after boring.

Standing water not present in hole .

Mottled Soil:

Observed at 1.5 feet of depth.

Mottled soil not present in bore hole .

Comments:

Depth, In Feet	Boring Number 3
0-----	
0-12"	Dark-brown sandy loam(3/3)
12-20"	Dark yellowish-brown loamy sand(10YR-4/4), mottled below 16", possible depositional profile from erosion obstruction

End of boring at 20" feet.

Standing water table:

Present at feet of depth, hours after boring.

Standing water not present in hole .

Mottled Soil:

Observed at 16" feet of depth.

Mottled soil not present in bore hole .

Comments:

Depth, In Feet	Boring Number 4
0-----	
0-6"	Dark-brown loamy sand(10YR-3/3)
6-16"	Dark y-brown loamy sand(4/4)
16-24"	Yellowish-brown clay loam(5/4), iron-st. & light-gray mottles below 20"

End of boring at 2 feet.

Standing water table:

Present at feet of depth, hours after boring.

Standing water not present in hole .

Mottled Soil:

Observed at 20" feet of depth.

Mottled soil not present in bore hole .

Comments:

U of MN Onsite Sewage Treatment Program Soil Boring Log

Client/ Address: 8005 22075th Legal Description/GPS: Lot 1 Blk 2 Valley Hills Date: 06/22/14

Soil Parent Material(s): (Till) Outwash Lacustrine Alluvium Loess Organic Matter Bedrock

Landscape Position: Summit Shoulder Back/Side Slope Foot Slope Toe Slope

Vegetation: Soil Survey Map Unit(s): Haydens Slope (%): 2-3%

Weather conditions/Time of Day: Slope Shape:

Depth (in)	Texture	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Saturated Soil Indicator(s) (see back)	Shape	I----- Structure-----I	
							Grade	Consistence
0-12	Sandy 10 mm	10 3/3	N	Concentrations Depletions Gleyed		Granular Play Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
12-24 DOB 24	Loamy Sand	10 4/4	10 4/6 10 4/2	Concentrations Depletions Gleyed	18" Roots	Granular Play Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Play Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Play Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Play Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid

Comments: Sewage Through Area to So. T₂ - Keep mound area to west of Sewage 18" SB as designed OK