ZIERKE SOIL TESTING

Caroline Bogel
14789 Oren Rd
Scandia, MN 55073

6/7/2019

Dear Caroline Bogel,

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. Proper care and maintenance of the system can prolong lifespan – see https://septic.umn.edu/septic-system-owners for more information. 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): 6/7/2019

☒ **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: 14789 Oren Rd N Scandia, MN 55073
Reason for inspection: Sale
Property owner: Caroline Bogel
Owner's phone: 651-202-5515
or
Owner's representative:
Representative phone:
Local regulatory authority: Washington County
Regulatory authority phone: 651-430-6655
Brief system description: (2) 1000 gallon septic tanks, (1) 1000 gallon lift station, mound dispersal system
Comments or recommendations:

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): Tank integrity form

Property address: 14789 Oren Rd N Scandia, MN 55073 Inspector initials/Date: BZ | 6/7/2019 *(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:

Caroline has not had any issues with the system.

2. Tank Integrity – Compliance component #2 of 5

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

Tanks pumped 6/6/2019 by Smilies. See attached.

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:

Property address: 14789 Oren Rd N Scandia, MN 55073 Inspector initials/Date: BZ | 6/7/2019 (mm/dd/yyyy)

4. Soil Separation – Compliance component #4 of 5

Date of installation: 8/30/2013 (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 (*Attach boring logs)*
- ☐ Not applicable *(Holding tank(s), no drainfield)*
- ☐ Unable to verify *(See Comments/Explanation)*
- ☐ Other *(See Comments/Explanation)*

Comments/Explanation:

Indicate depths or elevations

A. Bottom of distribution media	18" above grade
B. Periodically saturated soil/bedrock	18" below grade
C. System separation	36"
D. Required compliance separation*	36"

*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

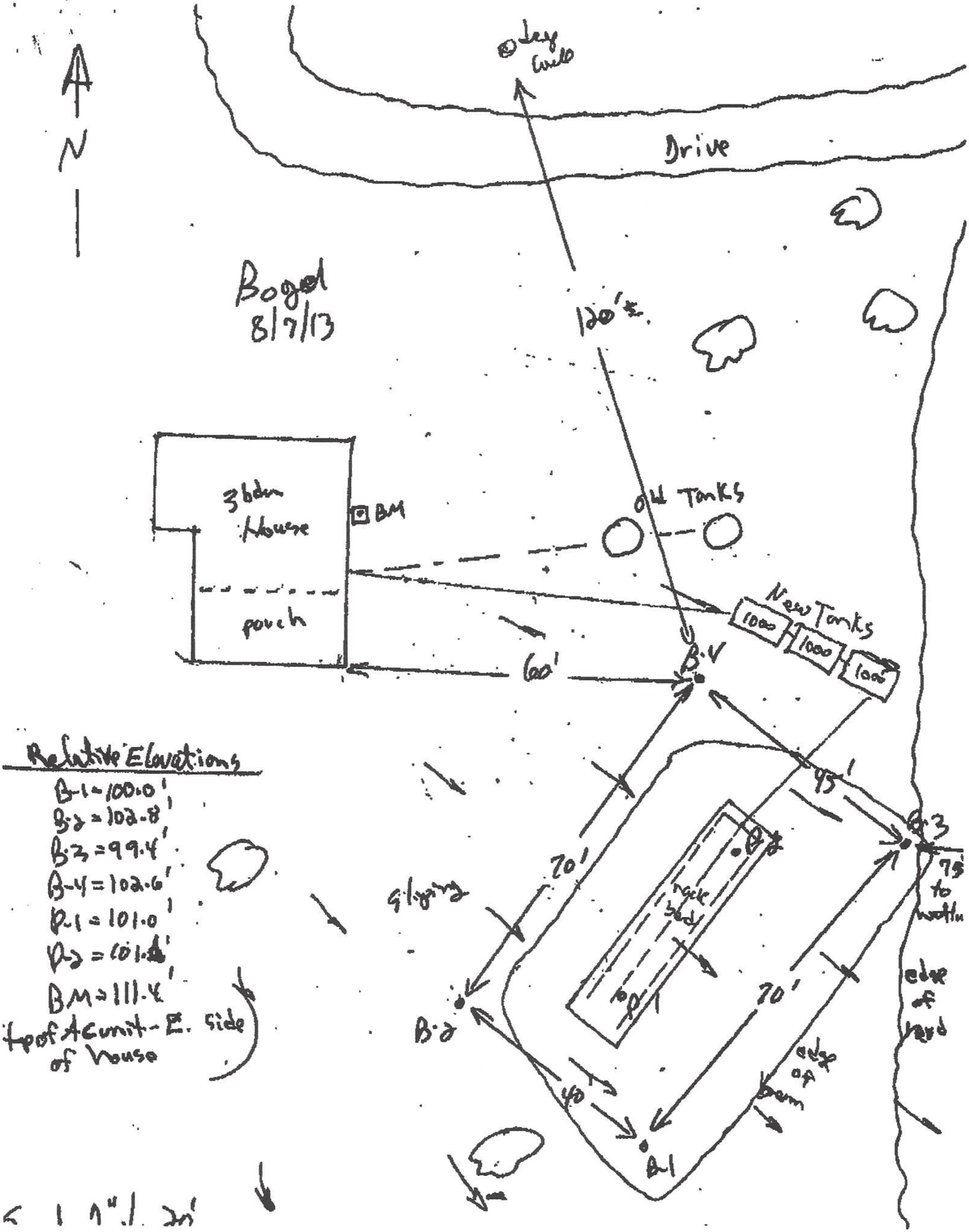
If the answer to both questions is "no", this section does not need to be completed.

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.*


N
Drive
8/7/13
120'±
House
BM
porch
Old Tanks
New Tanks
1000
1000
1000
60'
B-4
45'
70'
70'
40'
B-3
B-2
B-1
Relative Elevations
B-1 = 100.0'
B-2 = 102.8'
B-3 = 99.4'
B-4 = 102.6'
P-1 = 101.0'
BM = 111.4'
top of AC unit - E. side
of house
edge
of
yard
edge
of
berm

UNIVERSITY OF MINNESOTA

Onsite Sewage Treatment Program Soil Observation Log

Client/ Address:		Legal Description/GPS:				Date: 6/25/13
Soil Parent Material(s): (circle all that apply)	(Till)	Outwash	Lacustrine	Alluvium	Loess	Organic Matter	Bedrock
Landscape Position: (circle one)	Summit	Shoulder	Back/Side Slope	Foot Slope	Toe Slope	Slope Shape:	
Vegetation:		Soil Survey Map Unit(s):				Slope (%):	
Weather conditions/Time of Day:		Observation #/Location/Method:				Elevation:	

Depth (in)	Texture	Rock Frag %	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Saturated Soil Indicator(s) (see back)	Structure Shape	Structure Grade	Consistence
0-6	Fine Sandy Loam		10 3/3	N	Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
6-20	Fine Sandy Loam		10 5/4		Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
20-24	Clay Loam		7.5 5/4	7.5 5/6 10 4/2	Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
					Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
					Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
					Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid

Comments: Near P 1 Soil Very dry DUG 24" 18" SB mottled ok

Certified Statement: I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.	(Designer)	P. Lowell (Signature)	1702 (License #)	6/26/13 (Date)

LOGS OF SOIL BORINGS

Location of Project Erich Bogel, 33 acres, Sec. 11, City of New Scandia, Washington Co.
Borings Made by Chris Zierke Date: 8/6/13
Hand bucket auger used for borings; USDA – SCS Soil Classification used.

Depth, In Feet	Boring Number 1
0-8"	Dark-brown sandy loam(10YR-3/3)
8-20"	Yellowish-brown sandy loam(10YR-5/4
20-36"	Brown loam(7.5YR-5/6), iron-stains, light-gray mottles

End of boring at 3 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
0-8"	Dark-brown sandy loam(3/3)
8-20"	Yellowish-brown sandy loam(5/4)
20-24"	Brown loam(5/6) obstruction

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 feet of depth.
Mottled soil not present in bore hole ☒.
Comments:

Depth, In Feet	Boring Number 3
0-6"	Dark-brown sandy loam(3/3)
6-22"	Yellowish-brown sandy loam(5/4)
22-36"	Brown loam(5/6), iron-st. & light-gray mottles below 24"

End of boring at 3 feet.
Standing water table:
Present at feet of depth, hours after boring.
Standing water not present in hole ☒.
Mottled Soil:
Observed at 2 feet of depth.
Mottled soil not present in bore hole ☐.
Comments:

Depth, In Feet	Boring Number 4
0-6"	Dark-brown sandy loam(3/3)
6-20"	Yellowish-brown sandy loam(5/4), iron -st. & light-gray mottles below 18"
20-24"	Brown loam(5/6), iron-st., light-gray mottles

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:

Washington County

DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
GOVERNMENT CENTER
14949 62nd STREET NORTH P.O. BOX 6 STILLWATER, MN 55082-0006
Office: 651-430-6655 TTY: 651-430-6246 FAX: 651-430-6730

Subsurface Sewage Treatment System Maintenance Permit

This section must be completed in its entirety to constitute a valid maintenance permit. This permit must be completed prior to performing maintenance activities and remain on-site for the duration of the maintenance activity.

Date of Maintenance: 6/6/18 Reason for Maintenance: Routine

Property Address: 14784 Oren Rd N Property Owner's Name: Erica Bogel

Municipality: Scandia ZIP: 55073 Property Identification Number: _____

Maintenance Permit No: M56186154598 Maintainer Name and License No. Smilie's Sewer Service/L2428

Maintenance Performed	Tank Measurement (must be completed if tanks NOT pumped)
☑ Tank(s) Pumped ☐ Sludge and scum measured Do tanks need to be pumped? ☑ Yes ☐ No (if no provide measurements)	Liquid Level of Tank _____ in Sludge Level in Tank _____ in Scum Level in Tank _____ in Sludge + Scum _____ / Liquid Level _____ X 100 = % Sludge & Scum _____ Tanks must be pumped if 25% or greater

1. Access used to remove septage: ☑ Maintenance Hole ☐ Other (enter authorization code)
2. Were all covers securely replaced? ☑ Yes ☐ No
3. Is there evidence of tank leakage from a septic, holding, pretreatment or pump tank below the operating depth or evidence of damaged, cracked, or structurally unsound maintenance hole covers? ☐ Yes ☑ No

Tank	Leaking Out	Leaking In	Cover Damage
Septic/Holding Tank #1	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Septic/Holding Tank #2	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Pretreatment Tank	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Pump Tank	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No

4. How many gallons of septage were removed?
Tank #1 1000 gal Tank #2 1000 gal Pretreatment tank _____ gal Pump Tank 300 gal
5. Other information: List any troubleshooting, minor repairs conducted, tank safety concerns, or other concerns.

_____

6. Location of septage disposal: Land Applied

Smilie's Sewer Service
PO BOX 100
Scandia, MN 55073
License# 2428 P: 651-433-3934

Maintenance activities must be reported to the Department within 90 days.

Parcel number: _____ System status: ☐ Compliant ☐ Noncompliant *(as determined by this form)*

Tank Integrity and Safety Compliance – *Compliance Inspection Form for Existing SSTS*

Compliance Issue #2 of 4

Date of observation: 6/6/19 Reason for observation: Compliance

This form expires on (three years): _____

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.

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 appeared 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 issue 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): Eric L Bogel

Property address: 14789 Ann Rd N

Property owner's address (if different): _____

County: _____ Property owner phone: _____

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

Name: James Vaughn Certification number: C 850

Business license name and number: Sanitary Sewer Service or

Name of local unit of government: _____

Signature: _____ Date: 6/6/19