Inspect Minnesota & Midwest Soil Testing

P.O. Box 10853 White Bear Lake, MN 55110 Brian Humpal
651-492-7550/Brian@Midwestsoiltesting.com MPCA Licensed Advanced Inspector

SUBSURFACE SEWAGE TREATMENT SYSTEM (SSTS) COMPLIANCE REPORT

Date: June 27, 2019 **Time:** 9:00 AM **Owner:** Greg Nuss

Inspection Address: 9100 Joliet Ave N, Grant, MN 55082

REPORT SUMMARY

I have performed an "MPCA Compliance Inspection" on this system and have reviewed the original design/permit records, along with a previous compliance inspection from 2006, which were on file at Washington County. This system consists of two pre-cast septic tanks, a pre-cast lift tank, and a rock trench drainfield.

Although not a compliance criteria, it should be noted that the septic tanks and lift tank manhole covers are buried. I recommend extending these covers to the ground surface to facilitate easier access and proper maintenance of the lift pump.

Predicated on my inspection of the system and my review of the records, it is my opinion that this system presently meets MPCA minimum compliance inspection requirements.

Inspect Minnesota and Midwest Soil Testing have been hired to perform a compliance inspection of this SSTS for compliance with local ordinances pursuant to Minn. Stat. § 115.55 (2013). This compliance inspection covers only the criteria required by Minn. Stat. § 115.55 Subd. 5a (2013) and Minn. R. 7080.1500 (2011). A compliance inspection is an indication of the current compliance status of the system and does not guarantee the performance or longevity of this system beyond the date of inspection, as it is impossible to determine the future performance of any system. Inspect Minnesota and Midwest Soil Testing disclaim any use of this compliance inspection beyond determining SSTS compliance pursuant to Minn. Stat. § 115.55 Subd. 5a (2013) and Minn. R. 7080.1500 (2011).

Please contact me should you have any questions.

Christopher Uebe Brian Humpal

NOTE: This report is not complete without the inclusion/attachment of the additional pages which consist of up to three (3) MPCA drafted Compliance Inspection Documents, one (1) Homeowner/Occupant Information Sheet (when obtainable), one (1) site diagram, one (1) log of soil boring(s), one (1) Brian L Humpal, Inc. Disclaimer Sheet, and one (1) MPCA License.

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

Instructions: 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): 6/27/2019

☒ **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: 9100 Joliet Ave N, Grant, MN 55082 Reason for inspection: Property Transfer

Property owner: Greg Nuss Owner's phone: 651-633-4810

or

Owner's representative: Representative phone:

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

Brief system description: Two pre-cast septic tanks, a pre-cast lift tanks, and a rock trench drainfield.

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: Brian Humpal/Christopher Uebe Certification number: C5342/C9852

Business name: Inspect Minnesota, Midwest Soil Testing License number: L2896

Inspector signature: Brian Humpal Phone number: 651-492-7550

Necessary or Locally Required Attachments

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

☒ Other information (list): Report Summary, Property Information, Disclaimer, License

Property address: 9100 Joliet Ave N, Grant, MN 55082 Inspector initials/Date: 6/27/2019 BH CH

1. Impact on Public Health – Compliance component #1 of 5

Compliance criteria:	
System discharge sewage to the ground surface.	☐ Yes ☒ No
System discharge sewage to drain tile or surface waters.	☐ Yes ☒ No
System cause 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:

None of the above found.

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.	☐ Yes ☒ No
If yes, which sewage tank(s) leaks:	
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:

Lowered underwater camera into tanks - baffles and tank walls OK.

Lift pump and alarm were operational at the time of the inspection.

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

a. Maintenance hole covers are damaged, cracked, unsecured, or appear to 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: 9100 Joliet Ave N, Grant, MN 55082 Inspector initials/Date: 6/27/2019 BH CH

4. Soil Separation – Compliance component #4 of 5

Date of installation: 2003 ☐ 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:

Reviewed previous compliance inspection from 2006.

Reviewed design and permit records.

Indicate depths of elevations

A. Bottom of distribution media	See Attached Boring Log(s)
B. Periodically saturated soil/bedrock	
C. System separation	
D. Required compliance separation*	

*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.*

Inspect Minnesota & Midwest Soil Testing

Subsurface Sewage Treatment System Owner/Property Information

This information will be used for the purpose of conducting an MPCA Compliance Inspection.

Date of Inspection: June 27, 2019	Time: 9:00 AM
Property Address: 9100 Joliet Ave N, Grant, MN	Zip: 55082
Property Owner: Greg Nuss	Phone: 651-633-4810

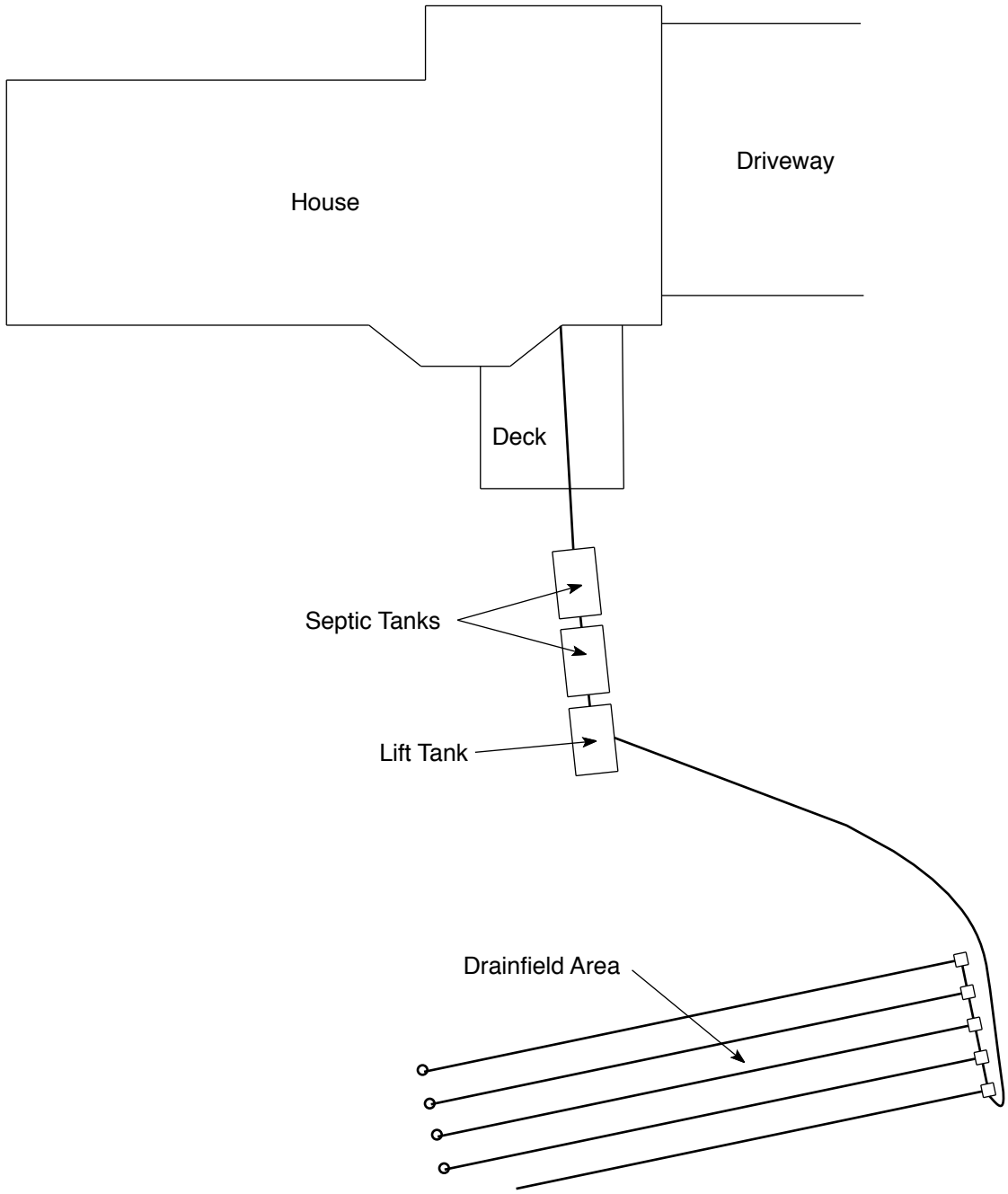
Tank(s)	Tank(s)Material	Soil Treatment System	Other
☒ Septic 2	☐ Fiberglass	☒ Rock trench	☐ Alternative system _____
☐ Aerobic	☐ Plastic	☐ Gravelless trench	☐ Experimental system _____
☒ Lift	☐ Metal	☐ Chamber trench	☐ Cesspool system _____
☐ Holding	☒ Concrete	☐ Seepage bed	☐ Other system _____
☐ Other:	☐ Block	☐ Mound	_____
	☐ Other _____	☐ At-grade	_____

Are the tank maintenance covers accessible? ☐ Yes ☒ No *If no, proper maintenance must be performed through the maintenance holes. Maintenance hole covers should be made accessible to the ground surface to facilitate access and proper maintenance of the system.

Year house built: 2003	Year septic installed: 2003	Tank size (gals.): 1-1500, 1-1000
How long has seller owned the property?	Number of residents in home?	
Number of bedrooms? 6	Are all floors drained by gravity? Y	
Garbage disposal?	Whirlpool bath?	
More than one system (laundry, etc.)?		
Does this property have any footing drain tiles connected to the septic system?		
Are any buildings on this property such as garages or out-buildings connected to this system?		
Are there any additional systems on this property serving other buildings?		
Location of septic system on lot? West Side		
Location of water well on lot? East Side	Is the well a deep well? Y	
Have you ever experienced any problems with the system such as: tree roots, sewage back-ups, surfacing of sewage onto the ground, septic tank overflowing, etc.; or have any repairs been made to the system? If yes, explain:		
When was the system last pumped? 2017	Name of pumper: Meyer Sewer Service	
How often pumped in previous years?	Is system on a monitoring plan?	
Have you received notices from any government agency concerning this system?		
Is your property located in a shoreland management area? N		
Do you have any additional information that should be given to the new owner?		

I hereby certify that the above information is correct to the best of my knowledge. I also understand that if the system is considered "non-compliant/failing" per MPCA rules, that the inspector must by law submit a copy of this report to the local government unit within 15 days of the date of inspection completion. I also agree that unless otherwise noted in this report, that I/we are ultimately responsible for payment of all fees for all work performed relative to this inspection by Inspect Minnesota and Midwest Soil Testing.

Owner/Occupant: Date:



← N

NO SCALE

9100 Joliet Ave N, Grant, MN 55082

Logs of Soil Borings

Location or Project: 9100 Joliet Ave. N.
Borings made by: Inspect MN Date: 2-7-06
Classification System: AASHO ___; USDA-SCS X; Unified ___; other ___
Auger used (check two): Hand X, or Power ___; Flight ___, or Bucket X; other ___

Depth, in feet	Boring number B-1 Surface elevation Same as top of ground @ lowest trench	Depth, in feet	Boring number B-2 Surface elevation Same as top of ground @ lowest trench
0	0"-24" 10YR 3/4 Sandy loam	0	0"-28" 7.5YR 4/4 loamy Sand
1		1	
2	24"-52" 7.5YR 4/6	2	
3		3	28"-42" 7.5YR 4/4 Clay loam
4	52"-64" 7.5YR 4/6 loam	4	42"-52" 7.5YR 4/6 loamy Sand + Gravel
5	7.5YR 5/8 mottled	5	52"-78" 7.5YR 4/4 Clay loam
6	64"+ 10YR 4/4 7.5YR 5/8 10YR 6/1	6	W/ loamy Sand layers Refusal @ 6.5 feet
7		7	Has 36" of Separation
8		8	

End of Boring at: 78" Inches
Mottled Soil Present: (Yes) NO
Mottled Soil at: 52" Inches
Standing Water Present: Yes (NO)
Standing Water Present at: ___ Inches

End of Boring at: 78 Inches
Mottled Soil Present: Yes (NO)
Mottled Soil at: ___ Inches
Standing Water Present: Yes (NO)
Standing Water Present at: ___ Inches

TOP OF DISTRIBUTION MEDIUM AT: 22" INCHES
BOTTOM OF DISTRIBUTION MEDIUM AT: 40" INCHES
REMARKS:
WERE SOIL SAMPLES SPRAYED? YES X NO ___

When performing the soil boring (s) relative to this septic system inspection, site evaluation or design, the depth to distinct **redoximorphic features** (commonly know as "**mottled soils**") were determined by using the definition for "**distinct**" as defined in MPCA rules 7080.0020 Subp. 13a. adopted through September 2002: "**Distinct**" means a soil color that varies from another color by one or more hues, more than two units of value, or more than one unit of chroma.

I/We has been advised through training and conversations with the MPCA that the above procedure for determining **redoximorphic** features (**mottled soils**) must be used in all cases; no other definitions will be allowed. The only exceptions would be when the difference in soil colors are attributed to other soil features such as lamellae banding, chelation from tannic acids, calcium carbonates, etc.

Logs of Soil Borings

Location or Project: 9100 Joliet Ave N.
Borings made by: Inspect MN Date: 2-7-06
Classification System: AASHO ___; USDA-SCS X; Unified ___; other ___
Auger used (check two): Hand X, or Power ___; Flight ___, or Bucket X; other ___

Depth, in feet	Boring number B-3 Surface elevation Same as top of ground @ lowest trench 3' off end	Depth, in feet	Boring number ___ Surface elevation ___
0	0"-38" 7.5YR 4/4 Sandy loam	0	
1		1	
2		2	
3	38"-54" 7.5YR 4/4 Sandy Clay loam	3	
4		4	
5	54"-64" 7.5YR 4/4 loamy Sand + Gravel	5	
6	64"-96" 7.5YR 4/4 Clay loam	6	
7		7	
8	Has 36" of Separation	8	

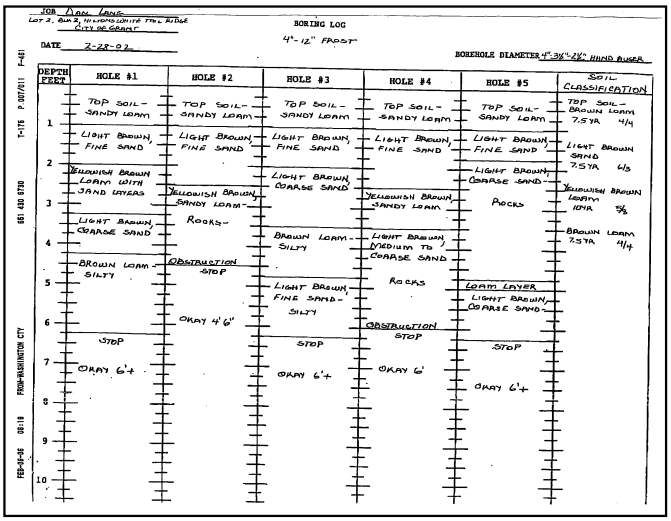
End of Boring at: 96 Inches
Mottled Soil Present: Yes (NO)
Mottled Soil at: ___ Inches
Standing Water Present: Yes (NO)
Standing Water Present at: ___ Inches

End of Boring at: ___ Inches
Mottled Soil Present: Yes NO
Mottled Soil at: ___ Inches
Standing Water Present: Yes NO
Standing Water Present at: ___ Inches

TOP OF DISTRIBUTION MEDIUM AT: 22 INCHES
BOTTOM OF DISTRIBUTION MEDIUM AT: 40 INCHES
REMARKS:
WERE SOIL SAMPLES SPRAYED? YES X NO ___

When performing the soil boring (s) relative to this septic system inspection, site evaluation or design, the depth to distinct **redoximorphic features** (commonly know as "**mottled soils**") were determined by using the definition for "**distinct**" as defined in MPCA rules 7080.0020 Subp. 13a. adopted through September 2002: "**Distinct**" means a soil color that varies from another color by one or more hues, more than two units of value, or more than one unit of chroma.

I/We has been advised through training and conversations with the MPCA that the above procedure for determining **redoximorphic** features (**mottled soils**) must be used in all cases; no other definitions will be allowed. The only exceptions would be when the difference in soil colors are attributed to other soil features such as lamellae banding, chelation from tannic acids, calcium carbonates, etc.



DISCLAIMER

Brian L. Humpal, Inc. dba. Inspect Minnesota, Midwest Soil Testing
Relative to Subsurface Sewage Treatment System (SSTS) Compliance Inspections

1. This inspection/report is being performed for only the seller/owner of the property on which the SSTS is located. In such case that another party is paying for the inspection, the contract is between only said party and Brian L. Humpal, Inc.; there is no contract between Brian L. Humpal, Inc. and any other party unless otherwise noted.
3. Brian L. Humpal, Inc. has not been retained to warranty, guarantee, or certify the proper functioning of the SSTS for any period of time beyond the date of inspection or into the future. Because of the numerous factors (usage, maintenance, soil characteristics, previous failures, etc.) which may affect the proper operation of an SSTS, as well as the inability of Brian L. Humpal, Inc. to supervise or monitor the use or maintenance of the SSTS, the report shall not be construed as a warranty by Brian L. Humpal, Inc. that the SSTS will function properly for any particular party for any period of time.
4. Brian L. Humpal, Inc. is unable to verify the frequency and/or, quality of prior or future maintenance of the SSTS. Maintenance of the tank(s) must be performed through the tanks maintenance hole. The removal of solids from any location other than the maintenance hole is not a compliant method of maintenance. It is strongly recommended that maintenance covers be made accessible to the ground surface to facilitate proper maintenance.
5. Minimum Compliance Inspection requirements relative to this inspection and this report include only verification that the SSTS has tank(s) (septic tanks, lift tanks, dosing tanks, stilling tanks, etc.) which are watertight below the designed operating depth, the required separation between the bottom of the subsurface soil distribution medium and seasonally saturated soils, no back-ups of sewage into the dwelling, no discharge of sewage/effluent to the ground surface or surface waters, and no imminent safety hazards. Brian L. Humpal, Inc. does not inspect plumbing or pumps prior to the first SSTS component as these are plumbing components. The performance of exterior pumps and associated components are not inspected as they are considered to be maintenance items. Additionally, no indications relative to compliance with electrical code requirements have been made. It is recommended that any other applicable plumbing, electrical, housing, etc. inspections be performed by a qualified inspection business. Sewage back-up verification is limited to observing the floor drain area and/or the information supplied by the last occupants of the building prior to inspection. Brian L. Humpal, Inc. cannot guarantee that the information given to them by the last occupants of the building prior to inspection relative to back-ups is accurate.
4. Certification of this SSTS does not warranty future use beyond the date of the inspection. Any SSTS, old or new, can become hydraulically overloaded or discharge sewage/effluent to the ground surface as a result of more people moving into the house than were previously occupying the house, improper maintenance, heavy usage, leaking plumbing fixtures, groundwater infiltration, tree roots, freezing conditions, surface drainage problems, poor initial design, poor construction practices, or unsuitable materials used in constructing the system; the system can also simply stop working because of its age. An SSTS that has been properly designed and installed, properly maintained, and used in the manner for which the system was designed can be expected to provide service for twenty to twenty-five years on average. Some parts of the SSTS such as alarms, switches, pumps, filters, etc. will most likely have to be repaired or replaced over the lifetime of the system.
5. A Compliance Inspection is not meant to be a test or inspection for longevity of the system; a Compliance Inspection is strictly for the purpose of determining if the SSTS is protective of public health and safety, as well as the groundwater at the date and time the inspection was performed. This inspection is not intended to determine if the SSTS was originally designed or installed to past or present MPCA or other Local Government Unit code requirements. This inspection is not intended to determine if the SSTS was designed and/or installed to support the anticipated flow from the building as the use of the building may have changed since the design and construction of the SSTS due to the addition of bedrooms, occupants, etc. In addition, this inspection is not intended to determine the quality of the original SSTS design, the quality of the construction practices used while installing the SSTS, or the quality of the materials used in constructing the SSTS.
6. Brian L. Humpal, Inc. cannot guarantee the performance of SSTS products/components such as: gravelless pipe, chamber trenches, effluent filters, tanks, sewage pre-treatment components, piping, etc. Products such as gravelless pipe are no longer approved for installation in the State of Minnesota and may have a significantly reduced performance and/or life expectancy.
7. WINTER WORK: By accepting this report, it is understood that inspections conducted during winter months (approximately November 1st through April 1st) are more difficult to perform because of possible snow cover and/or ground frost. SSTS components such as tanks, maintenance covers, tank inspection pipes, subsurface distribution medium inspection pipes, and soil treatment areas are more difficult or impossible to locate due to snow cover and/or ground frost. In addition, soil borings are more difficult to perform due to snow cover and/or ground frost. Brian L. Humpal, Inc. will attempt to use the same level of standards when performing work during winter periods as when performing work during non-winter periods. However, the recipient of this report understands that because of the aforementioned considerations, the same level of standards may not be possible.
8. By accepting this report, the client understands that Brian L. Humpal, Inc. will not be responsible for any monetary damages exceeding the fee for the services provided.

Subsurface Sewage Treatment Systems

Non-transferable

Business License

Inspect Minnesota, Midwest Soil Testing

License # L2896 License Expires: 12/22/2019 Issued: 11/20/2018

Specialty Area(s):

Installer
Maintainer
Service Provider
Advanced Designer
Advanced Inspector

Designated Certified Individual(s):

Cert #	Name	Certification Expires:
C9633	Anthony P Scully Installer, Designer (Apprentice)	3/5/2020
C5342	Brian L Humpal Installer, Maintainer, Serv Prov, Adv Designer, Adv Inspector	10/15/2023
C9852	Christopher R Uebe Designer, Inspector	3/4/2021

MINNESOTA POLLUTION CONTROL AGENCY

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

Nick Haig

Nick Haig, Supervisor
Certification and Training Unit