## **Inspect Minnesota & Midwest Soil Testing**

P.O. Box 10853 White B	ear Lake, MN 55110	Brian Humpal			
651-492-7550/Brian@Mic	dwestsoiltesting.com	MPCA Licensed Advanced Inspector			
SUBSURFACE SEWAGE TREATMENT SYSTEM (SSTS) COMPLIANCE REPORT					
Date: April 24, 2019Time: 9:00 AMOwner: Craig & Judy Messner					
Inspection Address: 2318 Boom Rd, Stillwater, MN 55082					

#### **REPORT SUMMARY**

I have performed an "MPCA Compliance Inspection" on this system, have reviewed the history of the system with the owner, Craig Messner, and have reviewed the original design/permit records on file with the owner. This very old system consists of a cesspool, a precast septic/lift tank, and a rock trench drainfield.

Although not compliance criteria, it should be noted that the septic tank inlet baffle is missing.

My inspection indicates that this system is presently "non-compliant" in accordance with MPCA rules 7080.1500 Subp.4(B) because of cesspool and the lack of the required three foot separation between the bottom of the drainfield and seasonally saturated soils.

In accordance with MPCA rules, I am sending a copy of this complete report to Washington County. I cannot officially speak on behalf of the County relative to the upgrade requirements of these non-compliant systems. Please contact the Washington County Department of Public Health & Environment (651-430-6655) to verify the County's position.

Please advise buyer, agents, lender, etc. to contact me should they have any questions regarding this system.

Christopher Uebe

Brian Humpal

Brian Humpal

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.	

For local tracking purposes:

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

#### System Status

System status on date (mm/dd/yyyy): \_\_\_\_\_\_\_\_

#### 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:	2318 B	oom Rd, Stillwater, MN 55082	Reason for inspe	ction: Pro	operty Transfer	
Property owner:	Craig &	Judy Messner	Owner's phone:	651-361-0	0970	
or						
Owner's represen	tative:		Representative p	hone:		
Local regulatory authority: Washington County		Regulatory autho	rity phone:	651-430-6655		
Brief system desc	ription:	A cesspool, a pre-cast septic/lift tank, a	and a rock trench drainfield.			
-						

Comments or recommendations:

it should be noted that the drainfield is located in a city easement.

#### 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 Hump	oal/Christopher Uebe	Certification number:	C5342/C9852
Business name:	Inspect Min	nesota, Midwest Soil Testing	License number:	L2896
Inspector signature	e:Z	win Humpal Afren Va	Phone number:	651-492-7550
Necessary or	Locally F	Required Attachments		
🛛 Soil boring lo	gs	🛛 System/As-built drawing	Forms per local ordinar	ice
I Other information	ation (list):	Report Summary, Property Informa	tion, Disclaimer, License	

2 of 9

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

Compliance criteria:		Verification r
System discharge sewage to the ground surface.	🗌 Yes 🖾 No	Searched f
System discharge sewage to drain tile or surface waters.	🗌 Yes 🖾 No	Excessive
System cause sewage backup into dwelling or establishment.	🗌 Yes 🖾 No	<ul> <li>"Black soil"</li> <li>System rec</li> <li>Performed</li> </ul>
Any "yes" answer above indicate an Imminent Threat to Public Hea		Unable to v

Comments/Explanation:

None of the above found.

#### nethod(s):

- or surface outlet
- or seeping in yard/backup in home
- ponding in soil system/D-boxes
- r testimony (See Comments/Explanation)
- above soil dispersal system
- uires "emergency" pumping
- dye test
- erify (See Comments/Explanation)
- ods not listed (See Comments/Explanation) Other meti

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

Compliance criteria:		Verification method(s):	
System consists of a seepage pit,	🖾 Yes 🗌 No	Probed tank(s) bottom	
cesspool, drywell, or leaching pit.		Examined construction records	
Seepage pits meeting 7080.2550 may be		Examined Tank Integrity Form (Attach)	
compliant if allowed in local ordinance.		Observed liquid level below operating depth	
Sewage tank(s) leak below their designed operating depth.	🗌 Yes 🗌 No	Examined empty (pumped) tanks(s)	
If yes, which sewage tank(s) leaks:	1 <sup>st</sup> tank	Probed outside tank(s) for "black soil"	
Any "yes" answer above indic system is Failing to Protect G	cates the	<ul> <li>Unable to verify (See Comments/Explanation)</li> <li>Other methods not listed (See Comments/Explanation)</li> </ul>	

Comments/Explanation:

Although not compliance criteria, it should be noted that the septic tank inlet baffle is missing. Lift pump and alarm were operational at the time of the inspection.

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

a.	Maintenance hole covers are damaged	cracked, unsecured,	or appear to structurally unsoun	d. 🛛 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:

System is non-protective of ground water for other conditions as determined by inspector Yes\* 🖾 No C. \*System is failing to protect groundwater

Explain:

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

Date of installation: 1997	Unknown	Verification method(s):			
Shoreland/Wellhead protection/Food Beverage Lodging?	🛛 Yes 🗌 No	Soil observation does not expire. Pr			
Compliance criteria:		observations by two independent pa unless site conditions have been alt			
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	<ul> <li>requirements differ.</li> <li>Conducted soil observation(s) (Attach boring</li> <li>Two previous verifications (Attach boring log</li> <li>Not applicable (Holding tank(s), no drainfield)</li> <li>Unable to verify (See Comments/Explanation)</li> <li>Other (See Comments/Explanation)</li> </ul>			
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	Comments/Explanation:			
Drainfield has a three-foot vertical separation distance from periodically saturated soil or bedrock.*					
"Experimental", "Other", or "Performance"	🗌 Yes 🔲 No	Indicate depths of elevations			
systems built under pre-2008 Rules; Type IV or V systems built under 2008 Rules (7080. 2350 or 7080.2400 (Advanced Inspector License required)		A. Bottom of distribution media	See Attached Boring Log(s)		
Drainfield meets the designed vertical		B. Periodically saturated soil/bedrock			
separation distance from periodically saturated soil or bedrock.		C. System separation			
		D. Required compliance separation*			
Any "no" answer above indicates t Failing to Protect Groundwater.	he system is	*May be reduced up to 15 percent if Ordinance.	allowed by Local		
Operating Permit and Nitrogen B	<b>MP*</b> – Compliance	component #5 of 5 🛛 🛛 Not appl	icable		
Is the system operated under an Operating Permit?  Yes No If "yes", A below is required					
Is the system required to employ a Nitrogen BM	Is the system required to employ a Nitrogen BMP?				
BMP=Best Management Practice(s) specif	ied in the system desig	ŋn			

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

#### **Compliance criteria**

5.

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, 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.

## <u>Inspect Minnesota & Midwest Soil Testing</u>

#### Subsurface Sewage Treatment System Owner/Property Information

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

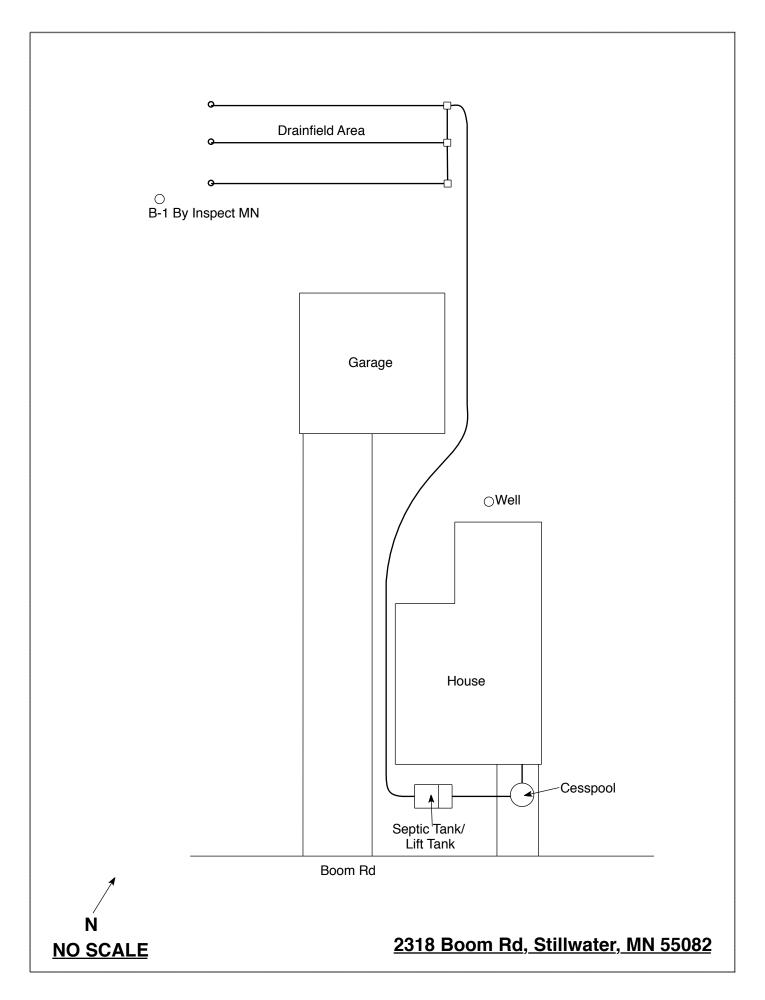
Date of Inspection: April 24, 2019	Time: 9:00 AM				
Property Address: 2318 Boom Rd, Stillwater, MN	Zip: 55082				
Property Owner: Craig & Judy Messner	Phone: 651-361-0970				
Tank(s)       Tank(s)Material       Soil Trank(s)Material         Septic       Fiberglass       Image: Constraint of the second secon	eatment System       Other         c trench       Alternative system         velless trench       Experimental system         nber trench       Cesspool system 1         vage bed       Other system         nd				
Are the tank maintenance covers accessible? $\boxtimes$ Ye performed through the maintenance holes. Mainten the ground surface to facilitate access and proper m	nance hole covers should be made accessible to				
Year house built: 1888 Year septic installed	: 1997 Tank size (gals.):				
How long has seller owned the property? 1988					
	rs drained by gravity? Y				
	Vhirlpool bath? Y				
More than one system (laundry, etc.)? N Does this property have any footing drain tiles com					
Are any buildings on this property such as garages floor drain in a lower garage connected to septic sy	stem.				
Are there any additional systems on this property set Location of septic system on lot? Northwest Side	erving other buildings? N				
Location of water well on lot? North 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? N If yes, explain:					
When was the system last pumped? 2015	Name of pumper: Ron's Sewer Service				
How often pumped in previous years? Every 4	Is system on a monitoring plan? N				
Have you received notices from any government ag					
Is your property located in a shoreland managemen					
Do you have any additional information that should	l be given to the new owner? N				

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: Craig Messner's Signature On File

Date: 4/24/2019

6 of 9



### Log Of Soil Borings

Location of Project: 2318 Boom Rd, Stillwater, MN 55082					
Borings Made By: Inspect Minnesota				Date:	4/24/19
		Hand/Bucket	Classif	ication System:	USDA
E	Boring Number:	1	I	Boring Number:	
Surface Elevation o Boring		und surface as last nfield trench	Surface Elevation o Boring	of	
Depth In Inches	Soils E	ncountered	Depth In Inches	Soils En	countered
0-34 34-50 50-57 7 57-63	≈15-25% Sar 10YR 4/6 7.5YR 4/3 Silt Loa 7.5YR 4/3 7.5YR Refu	ly Loam With Gravel ndstone Fragments 6 Loamy Sand m (Saturated To Moist) Silt Loam With 5/8 Redox sal At 63" ne? (Bedrock)			
57" D	epth To End Of B	oring Or Redox	D	Pepth To End Of Bo	oring Or Redox
Same E	levation Of Borin	g Relative To System	E	levation Of Boring	Relative To System
	epth To Bottom ( Of Separation	Of Distribution Media		Depth To Bottom O Df Separation	f Distribution Media
E	End Of Boring At:	63"		End Of Boring At:	
	edox Present At:			Redox Present At:	
Standing W	Vater Present At:	None	Standing \	Water Present At:	

Bottom Of Distribution Medium At: 36 Inches

#### 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 <u>only</u> 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 1<sup>st</sup> through April 1<sup>st</sup>) 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<sup>®</sup>Treatment Systems Non-transferable Business License

# Inspect Minnesota, Midwest Soil Testing

License Expires: 12/22/2019

Issued: 11/20/2018

## **Specialty Area(s):**

License # L2896

Installer Maintainer Service Provider Advanced Designer Advanced Inspector

# **Designated Certified Individual(s):**

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

## MINNESOTA POLLUTION CONTROL AGENCY

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

Nich Haig

Nick Haig, Supervisor Certification and Training Unit