Inspect Minnesota & Midwest Soil Testing

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

Brian Humpal

MPCA Licensed Advanced Inspector

SUBSURFACE SEWAGE TREATMENT SYSTEM (SSTS) COMPLIANCE REPORT

Date: April 4, 2018 **Time:** 4:00 PM **Owner:** Kate Krzenski

Inspection Address: 23200 Manning Trl N, Scandia, MN 55073

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 2013 and 2015, 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.

Predicated on my inspection of the system and my review of the original design/permit records, it is my opinion that this system <u>presently meets</u> 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.

Brian Humpal
Brian Humpal



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):4/4/2018	
· · · · · · · · · · · · · · · · · · ·	npliant – Notice of Noncompliance rade Requirements on page 3)
Reason(s) for noncompliance (check all applicable) Impact on Public Health (Compliance Component #1) – Imminent threat to Other Compliance Conditions (Compliance Component #3) – Imminent threat the Tank Integrity (Compliance Component #2) – Failing to protect groundward Other Compliance Conditions (Compliance Component #3) – Failing to protect groundward Soil Separation (Compliance Component #4) – Failing to protect groundward Operating permit/monitoring plan requirements (Compliance Component #4)	reat to public health and safety fer otect groundwater ater
	,
Property Information Parcel ID# or Sec/Twp/Rang	
· · · · · · · · · · · · · · · · · · ·	or inspection: Property Transfer
Property owner: Kate Krzenski Owner's Owner's	ohone:
	ntative phone:
· · · · · · · · · · · · · · · · · · ·	ry authority phone: 651-430-4052
Brief system description: Two pre-cast septic tanks, a pre-cast lift tank, and a rock t	rench drainfield.
Comments or recommendations:	
Certification	
I hereby certify that all the necessary information has been gathered to determine the of determination of future system performance has been nor can be made due to unknown possible abuse of the system, inadequate maintenance, or future water usage.	
Inspector name: Brian Humpal Certificat	ion number: <u>L5342</u>
Business name: Inspect Minnesota, Midwest Soil Testing Licer	se number: L2896
Inspector signature: Brian Humpal Pho	ne number: 651-492-7550
Necessary or Locally Required Attachments ☐ Soil boring logs ☐ System/As-built drawing ☐ Forms per ☐ Other information (list):	local ordinance eense

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Property address: 2320 Manning Trl N, Scandia, MN 55073

Inspector initials/Date: 4/4/2018

1.	Impact on Public Health — Co	ompliance compone	ent #1 of 5
	System discharge sewage to the ground surface. System discharge sewage to drain tile or surface waters. System cause sewage backup into dwelling or establishment. Any "yes" answer above indicate an Imminent Threat to Public Heat Comments/Explanation: None of the above found.	alth 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)
2.	Tank Integrity – Compliance co	mponent #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. Sewage tank(s) leak below their designed operating depth. If yes, which sewage tank(s) leaks: Any "yes" answer above indicates and its system is Failing to Protect G. Comments/Explanation: Lowered underwater camera into tanks Lift pump and alarm were operational and its system is failing to Protect G.	- baffles and tank wa	
3.	Other Compliance Condition	ı s – Compliance co	mponent #3 of 5
	_	immediately and adve bublic health and safe water for other condition	

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Inspector initials/Date: 4/4/2018 Property address: 2320 Manning Trl N, Scandia, MN 55073 **Soil Separation** – Compliance component #4 of 5 Date of installation: 2004 Unknown Verification method(s): Shoreland/Wellhead protection/Food Beverage ⊠ Yes □ No Soil observation does not expire. Previous soil Lodging? observations by two independent parties are sufficient. Compliance criteria: unless site conditions have been altered or local requirements differ. ☐ Yes ☐ No For systems built prior to April 1, 1996, and ☐ Conducted soil observation(s) (Attach boring logs) not located in Shoreland or Wellhead Protection Area or not serving a food, ☐ Two previous verifications (Attach boring logs) beverage or lodging establishment: ☐ Not applicable (Holding tank(s), no drainfield) Drainfield has at least a two-foot vertical ☐ Unable to verify (See Comments/Explanation) separation distance from periodically ☐ Other (See Comments/Explanation) saturated soil or bedrock. Non-performance systems built April 1, Comments/Explanation: 1996, or later or for non-performance Reviewed previous compliance inspection from 2015. systems located in Shoreland or Wellhead Protection Areas or serving a food, Reviewed previous compliance inspection from 2013. beverage, or lodging establishment: Reviewed design and permit records. 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 See Attached or V systems built under 2008 Rules (7080. A. Bottom of distribution media Boring Log(s) 2350 or 7080.2400 (Advanced Inspector License required) B. Periodically saturated soil/bedrock Drainfield meets the designed vertical separation distance from periodically C. System separation saturated soil or bedrock. D. Required compliance separation* Any "no" answer above indicates the system is *May be reduced up to 15 percent if allowed by Local Failing to Protect Groundwater. 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: ☐ Yes ☐ No Have the Operating Permit requirements been met? 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.

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Inspect Minnesota & Midwest Soil Testing Subsurface Sewage Treatment System Owner/Property Information This information will be used for the nurpose of conducting an MPCA Compliance Inspection

This information will be used for the purpose of conducting an MPCA	Compilance hispection.		
Date of Inspection: April 4, 2018	Time: 4:00 PM		
Property Address: 23200 Manning Trl N, Scandia, MN	Zip: 55073		
Property Owner: Kate Krzenski	Phone:		
Tank(s) Tank(s)Material Soil Treatment System Septic 2 Fiberglass ⊠Rock trench Aerobic Plastic Gravelless trench Lift Metal Chamber trench Holding Concrete Seepage bed Other: Block Mound Other At-grade	Other Alternative system Experimental system Cesspool system Other system		
Are the tank maintenance covers accessible? ⊠ Yes ☐ No *If i	no, proper maintenance must be		
performed through the maintenance holes. Maintenance hole cover			
the ground surface to facilitate access and proper maintenance of t	he system.		
Year house built: 1970 Year septic installed: 2004	Γank size (gals.): 2-1000		
1	sidents in home?		
Number of bedrooms? 4 Are all floors drained by gr	ravity? Y		
Garbage disposal? N Whirlpool bath?	N		
More than one system (laundry, etc.)?			
Does this property have any footing drain tiles connected to the se	ptic 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 bu	ildings?		
Location of septic system on lot? West Side			
	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:			
J 1 1	per: Tom's Sewer Service		
	on a monitoring plan?		
Have you received notices from any government agency concerning	ng this system?		
Is your property located in a shoreland management area? Y			
Do you have any additional information that should be given to the	e new owner?		
I hereby certify that the above information is correct to the best of my knowledge considered "non-compliant/failing" per MPCA rules, that the inspector must by local government unit within 15 days of the date of inspection completion. I all	law submit a copy of this report to the		

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:

Log Of Soil Borings

Location of Project: 23200 Manning Trail N, Scandia, MN 55073					
Borings Made By: Inspect Minnesota			Date:	3/10/15	
Auger Used: Hand/Bucket		Classification System: USDA		USDA	
	Boring Number: 1			Boring Number:	
Surface	2		Surface		
Elevation	of Same ground	surface as drainfield	Elevation	of	
Boring			Boring		
Depth In	Soils E	ncountered	Depth In	Soils Er	ncountered
Inches 0-15	10VR 3/3	3 Sandy Loam	Inches		
15-54		Coarse Sand With Gravel			
54-78	· ·	ne Medium Sand			
78"	Depth To End Of B	oring Or Redox		Depth To End Of Bo	oring Or Redox
Same	Elevation Of Boring	g Relative To System		Elevation Of Boring	Relative To System
-20"	-20" Depth To Bottom Of System		Depth To Bottom Of System		of System
≥58"	Of Separation			Of Separation	
	End Of Desire - At	70"			
	End Of Boring At:	78"		End Of Boring At:	
Redox Present At: None			Redox Present At:		
Standing Water Present At: None		Standing	Water Present At:		

Bottom Of Distribution Medium At:	20 Inches
_	_



Compliance Inspection Attachment for Existing Individual Sewage Treatment Systems

Address	23200 Manning Trail, Scandia	

Boring	#1 Elevation:	Boring #2 Elevation	Boring #3 Elevation:
0-6	10YR 3/2, 3/4 dark yellowish brown fine sand.		i i
-18	10YR 4/4 yellowish brown medium sand and gravel.		
-72	10YR 5/4 yellowish brown medium sand and gravel. No redoximorphic mottling observed.		·

Sketch:

Comments: Benchmark = Top of distribution pipe in trench #1. Assumed elevation = 100'0". Soil borings #1 indicated no signs of redoximorphic mottling at a depth of 36" beneath the rockbed. The system does meet the required three foot vertical separation from seasonally saturated soils. The system consists of 2)1000-gallon septic tanks, a 1000-gallon lift tank and gravity drainfield trenches. The lift pump was manually run and the system dosed with approximately 200 gallons of effluent and no signs of excessive moisture and/or ponding was observed in the rockbed or. The liquid level in each drop box was at or below normal operating levels. The house has, however, been vacant prior to and during this inspection, therefore the system has not been receiving regular use. This inspection is not a warranty or guarantee, either written or implied, of future or long-term hydraulic functionality/performance, but rather a determination if the systems use is/may cause pollution and/or adverse harm to the environment, groundwater or public health and safety at the time of this inspection. This inspection was completed in the winter and due to snow and frozen conditions, the tanks were not able to be dug up and exposed. Verification of the tanks was determined by reviewing county records of installation in 2005. Changes in use can cause any system to become hydraulically overloaded and ultimately fail. Buyers assume full responsibility for the long-term performance of this system. Liability is limited to the cost of this inspection.

SOIL BORING LOG

Name: Bald Eagle Builders

MAC'S SEWER SERVICE: By Michael D. McElhatton-Designer I

Date: 7/27/04 ...

ocation:	23200 Manning Tr. No., Scandia, MN.		USDA-SCS; Recovered by hand auger
Depth Inches	SOIL BORING # 1 Surface Elevation: 100'	Depth Inches	SOIL BORING # 2 Surface Elevation: 103' 4"
0-72	7.5yr 5/4 lgt brown course sand & gravel	0-72	7.5yr 5/4 lgt brown course sand & gravel
	No Mottling		No Mottling
End of 1	Boring at <u>6</u> ft.	End of I	oring at <u>6</u> ft.
Standin Not pres	g Water at ft. sent in hole <u>X</u>		Water at ft.
Mottled Not pres	soil at ft sent in holeX	Mottled Not pres	soil at ft. ent in holeX
Comme	de:	Commen	ts:
. 8			
Depth Inches	SOIL BORING # 3 Surface Elevation: 102'	Depth Inches	SOIL BORING # 4 Surface Elevation: 99' 10"
Inches			
O-72 End of B Standing	Surface Elevation: 102' 7.5yr 4/4 med brown course sand & gravel No Mottling oring at6_ ft.	Inches 0-24 End of Bo	Surface Elevation: 99' 10" 10yr 4/4 lgt tan silt loam & gravel Stopped by gravel oring at2 ft. Water at ft.
End of B Standing Not pres	Surface Elevation: 102' 7.5yr 4/4 med brown course sand & gravel No Mottling oring at6_ ft. Water at ft. ent in hole soil atX ft. ent in hole	End of Bo Standing Not prese Mottled s Not prese	Surface Elevation: 99' 10" 10yr 4/4 lgt tan silt loam & gravel Stopped by gravel oring at2 ft.

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 <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 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: 12/22/2018

Issued: 10/10/2017

es:

Specialty Area(s):

Installer
Maintainer
Service Provider
Advanced Designer
Advanced Inspector

Designated Certified Individual(s):

Cert #	Name	Certification Expir
C9633	Anthony P Scully	7/28/2018
	Installer, Designer (Conditional)	
C5342	Brian L Humpal	10/15/2020
	Installer, Maintainer, Serv Prov,	Adv Designer, Adv Inspector
C9852	Christopher R Uebe	3/4/2018
	Designer, Inspector	



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

Charles K Thompson, Supervisor Certification & Training Unit