Inspect Minnesota & Midwest Soil Testing P.O. Box 383 Hugo, MN 55038 **Brian Humpal** 651-492-7550/Brian@midwestsoiltesting.com MPCA Licensed Designer & Inspector SUBSURFACE SEWAGE TREATMENT SYSTEM COMPLIANCE REPORT **Time:** 9:30 AM **Owner:** Saidang Xiong Date: December 5, 2016 Inspection Address: 3351 Jamaca Ave N, Lake Elmo, MN 55042 **REPORT SUMMARY**

I have performed an "MPCA Compliance Inspection" on this septic system and have reviewed the limited records on file at City Of Lake Elmo. This very old system (installed in 1963) consists of a cesspool. Additional cesspool(s) and/or a drainfield may exist beyond the first cesspool.

My inspection indicates that this system is presently "non-compliant" in accordance with MPCA rules 7080.1500 Subp.4(B)(E) because of the cesspool(s) and the lack of the required two 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 Washington County Environmental Specialist, Mr. Chris LeClair (651-430-4052), to verify the County's position.

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

Brian Humpal Brian Humpal

Minnesota Pollution Control Agency 520 Lafayette Road North St. Paul, MN 55155-4194	-	mpliance Inspection Form og Subsurface Sewage Treatment Systems (SSTS) Doc Type: Compliance and Enforcement		
Instructions: Inspection results based on Minnesor requirements and attached forms – additional local r		For local tracking purposes:		
Submit completed form to Local Unit of Govern within 15 days	ment (LUG) and system owner			
System Status				
System status on date (mm/dd/yyyy): <u>1</u> 2	2/5/2016			
Compliant – Certificate of Com (Valid for 3 years from report date, unles frame outlined in Local Ordinance.)		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	o public health and safety		
Other Compliance Conditions (Compliance)	ance Component #3) – Imminent thr	eat to public health and safety		
🛛 Tank Integrity (Compliance Componer	nt #2) – Failing to protect groundwat	er		
Other Compliance Conditions (Compliance Conditions)	ance Component #3) – Failing to pro	otect 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:	3351 Jamaca Ave N, Lake Elmo, MN 55042	Reason for inspection: Property Sale
Property owner:	Saidang Xiong	Owner's phone:
or		
Owner's represent	ative:	Representative phone:
Local regulatory a	uthority: Washington County	Regulatory authority phone: _651-430-4052
Brief system descr	iption: Cesspool with possible additional cesspo	ool(s) and/or a drainfield.
Commonte or roco	mmondations:	

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	Certification number:	L5342
Business name:	Inspect Minnesota, Midwest Soil Testing	License number:	L2896
Inspector signatur	: 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

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

Compliance criteria: 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 indicates the system is an Imminent Threat to Public Health and Safety.

Comments/Explanation: None of the above found.

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 component #2 of 5

Compliance criteria:

System consists of a seepage pit, cesspool, drywell, or leaching pit.	🛛 Yes 🗌 No
Seepage pits meeting 7080.2550 may be compliant if allowed in local ordinance.	
Sewage tank(s) leak below their designed operating depth.	🗌 Yes 🔲 No
If yes, which sewage tank(s) leaks:	All Tank(s)

Any "yes" answer above indicates the system is Failing to Protect Groundwater.

Comments/Explanation:

Lowered underwater camera into tank - tank of block construction.

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)

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

a.	Maintenance hole covers are damage	d, cracked, ι	unsecured, or a	appear to structurally	y unsound.	🗌 Yes*	🖾 No	🗌 Unknown

b. Other issues (electrical hazards, etc.) to immediately and adversely impact public health or safety. *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:

4. Soil Separation – Compliance component #4 of 5

Date of installation: 1963	Unknown	Verification method(s):
Shoreland/Wellhead protection/Food Beverage Lodging?	🗌 Yes 🛛 No	Soil observation does not expire. Previous soil observations by two independent parties are sufficient,
Compliance criteria:		unless site conditions have been altered or local
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	 requirements differ. Conducted soil observation(s) (Attach boring logs) Two previous verifications (Attach boring logs) Not applicable (Holding tank(s), no drainfield)
Drainfield has at least a two-foot vertical separation distance from periodically saturated soil or bedrock.		 Unable to verify (See Comments/Explanation) Other (See Comments/Explanation)
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 separation distance from periodically saturated soil or bedrock.		B. Periodically saturated soil/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 allowed by Local _ Ordinance.
Operating Permit and Nitrogen B	MP* – Compliance	ce component #5 of 5 🛛 🖂 Not applicable
Is the system operated under an Operating Per	mit? 🗌 Yes	No If "yes", A below is required
Is the system required to employ a Nitrogen BM		
BMP=Best Management Practice(s) specif	ïed in the system des	esign
If the answer to both questions is "no",	this section does	s not need to be completed.
Compliance criteria		
o Onersting Remit suggesting		
· · · · · · · · · · · · · · · · · · ·		🗌 Yes 🔲 No

Any "no" answer indicates Noncompliance.

Have the Operating Permit requirements been met?

b. Is the required nitrogen BMP in place and properly functioning?

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.*

☐ Yes ☐ No

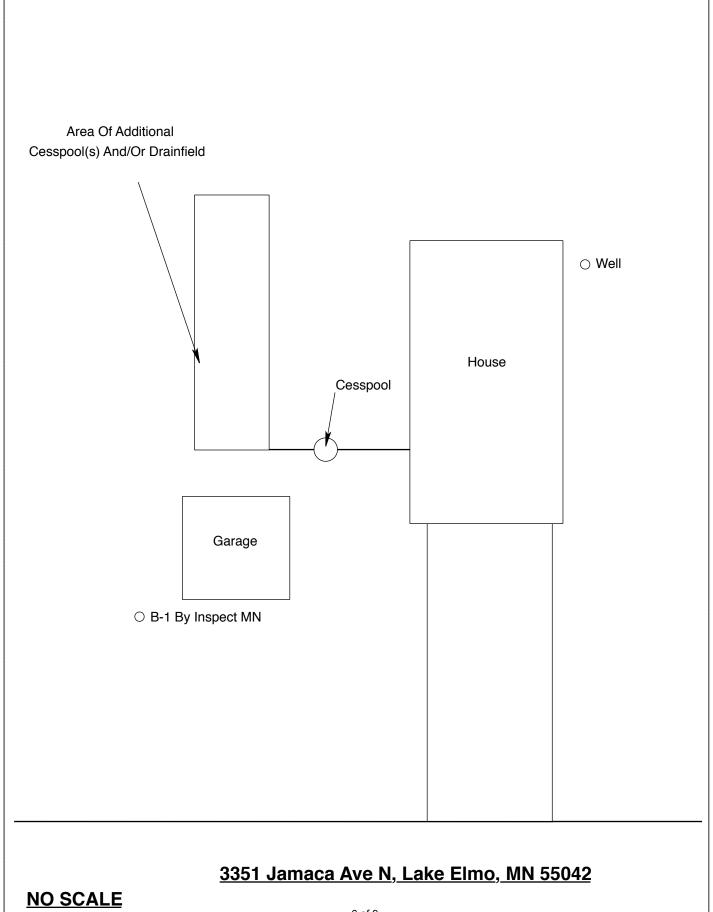
<u>Inspect Minnesota & Midwest Soil Testing</u>

Subsurface Sewage Treatment System Owner/Property Information

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

Date of Inspection: December 5, 2016	Time: 9:30 AM
Property Address: 3351 Jamaca Ave N, Lake Elmo, MN	Zip: 55042
Property Owner: Saidang Xiong	Phone:
Troperty Owner. Saidang Along Tank(s) Tank(s)Material Soil Treatment System	Other
$\square Septic \square Fiberglass \square Rock trench$	Alternative system
Aerobic Plastic Gravelless trench	Experimental system
LiftMetalChamber trenchHoldingConcreteSeepage bed	Cesspool system <u>1 Or More</u>
Other: Block Mound	
Other At-grade	
Are the tank maintenance covers accessible? \Box Yes \boxtimes No *If	no, proper maintenance must be
performed through the maintenance holes. Maintenance hole cover	ers should be made accessible to
the ground surface to facilitate access and proper maintenance of t	he system.
Year house built: 1963 Year septic installed: 1963	Tank size (gals.): 900 est
	sidents in home?
Number of bedrooms? 2 Are all floors drained by g	ravity? Y
Garbage disposal? Whirlpool bath?	•
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-building	s connected to this system?
Are there any additional systems on this property serving other by	ildings?
Are there any additional systems on this property serving other bu	ndings?
Lagation of gamtic gystem on 1st? Fost Side	
Location of septic system on lot? East SideLocation of water well on lot? West SideIs the	e well a deep well? Y
Have you ever experienced any problems with the system such as:	1
surfacing of sewage onto the ground, septic tank overflowing, etc.	
to the system? If yes, explain:	, of have any repairs been made
When was the system last pumped? 2014 Name of pum	per:
How often pumped in previous years? Is system	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? N	
Do you have any additional information that should be given to th	e 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.



Log Of Soil Borings

Location of Project: 3351 Jamaca Ave N, Lake Elmo, MN 55042								
				Date:	12/5/16			
	Borings Made By: Inspect Minnesota Auger Used: Hand/Bucket			Classification System: USDA				
Bo	oring Number:	1		Boring Number:				
Surface Elevation of Boring	Same grou	und surface as last nfield trench	Surface Elevation Boring					
Depth In Inches	Soils E	ncountered	Depth In Inches					
0-27 27-44 44-50	10YR 4/4 C 10YR 4/4	Soils Encountered YR 4/2 Medium Sand (Moist) OYR 4/4 Clay Loam (Moist) 10YR 4/4 Clay Loam With .5YR 5/8 & 10YR 6/2 Redox						
44" De	4" Depth To End Of Boring Or Redox			Depth To End Of Boring Or Redox				
Same Ele	me Elevation Of Boring Relative To System		Elevation Of Boring Relative To System					
	pth To Bottom (Separation	Df Distribution Media		Depth To Bottom O Of Separation	f Distribution Media			
Fn	d Of Boring At:	50"		End Of Boring At:				
	Redox Present At: 44"			Redox Present At:				
Standing Water Present At: None				Water Present At:				

Bottom Of Distribution Medium At: 36 Inches

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

License # L2896

Adv Inspector License Expires: Adv Designer License Expires: Maintainer License Expires: Installer License Expires: Date of Issuance:

Oct 28, 2015 Dec 22, 2016 Dec 22, 2016 Dec 22, 2016 Dec 22, 2016

Inspect Minnesota, Midwest Soil Testing

Certificatio Expires	10/15/2017	10/15/2017	10/15/2017	10/15/2017	10/15/2017	03/04/2018	03/04/2018
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Minnesota Pollution Control Agency

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



Steven Giddings Manager Environmental Business Assistance Section