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# Inspect Minnesota & Midwest Soil Testing

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P.O. Box 383 Hugo, MN 55038  
651-492-7550/Brian@midwestsoiltesting.com

Brian Humpal  
MPCA Licensed Designer & Inspector

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## **SUBSURFACE SEWAGE TREATMENT SYSTEM COMPLIANCE REPORT**

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**Date:** January 14, 2016

**Time:** 1:00 PM

**Owner:** Steve & Krista Dorgan

**Inspection Address:** 4142 Penfield Ave S, Afton, MN    **Site Conditions:** 5" Snow 0" Frost

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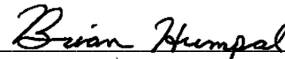
### **REPORT SUMMARY**

I have performed an "MPCA Compliance Inspection" on this septic system, have reviewed the history of the system with the owner, Steve Dorgan, and have reviewed the original design/permit records, along with a previous non-compliance inspection from 2004, which were on file at Washington County. This system consists of a pre-cast two-compartment septic/lift tank and a rock trench drainfield.

My inspection indicates that this system is presently "non-compliant" in accordance with MPCA rules 7080.1500 Subp.4(B)(E) because of the lack of the required two foot separation between the bottom of the drainfield and seasonally saturated soils. This system is not an imminent threat to public health or safety per MPCA rule 7080.1500 Subp. 4(A). Washington County issued sewage treatment permit #4626 for the installation of this septic system.

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.



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Brian Humpal

**NOTE:** This report is not complete without the inclusion/attachment of the additional pages which consist of up to five (5) 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.

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): 1/14/2016

**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: 4142 Penfield Ave S, Afton, MN 55001

Reason for inspection: Property Sale

Property owner: Steve & Krista Dorgan

Owner's phone: 651-501-4160

or

Owner's representative: \_\_\_\_\_

Representative phone: \_\_\_\_\_

Local regulatory authority: Washington County

Regulatory authority phone: 651-430-4052

Brief system description: Pre-cast two-compartment septic/lift tank 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

Certification number: L5342

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

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

**Compliance criteria:**

System discharge sewage to the ground surface.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
System discharge sewage to drain tile or surface waters.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
System cause sewage backup into dwelling or establishment.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

**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. <i>Seepage pits meeting 7080.2550 may be compliant if allowed in local ordinance.</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Sewage tank(s) leak below their designed operating depth.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, which sewage tank(s) leaks:	

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

Comments/Explanation:  
Lowered underwater camera into tank - baffles and tank walls OK.  
Lift pump and alarm were operational at the time of the inspection.

**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 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:

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

Date of installation: 1988  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:  Yes  No

Drainfield has at least a two-foot vertical separation distance from periodically saturated soil or bedrock.

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

Drainfield has a three-foot vertical separation distance from periodically saturated soil or bedrock.\*

“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)  Yes  No

Drainfield meets the designed vertical separation distance from periodically saturated soil or bedrock.

**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:**

Reviewed previous non-compliance inspection from 2004

**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: \_\_\_\_\_  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.

WASHINGTON COUNTY, MINNESOTA

Sewage Treatment Permit No. 466

Inspection of Installation Must Be Made By the Building Official Before Any Portion of System is Covered  
Contact Planning Department, 779-5444, 24 Hour Notice Required

Owner Tom Nelson

Property Description Part of 1/4 Sec 10 T29N R20W N1/2 S1/4

Property Address 4142 Parkside Drive S. Appleton

Use of Building: HOME OFFICE Flow Rate: 45 GPM Percolation Rate: 4 mpi

Septic Tank 200 Gal. Liquid Capacity Lift Station (if needed) 1000 Gal.

Type of System: ESPT DRY DRY DRY FIELD

Absorption Trench — Square Feet 945 Lineal Feet 111 Width 8 1/2

Depth of Rock Below Lines 15 Inches, Above Lines \_\_\_\_\_ Inches

Depth of Trench From Existing Grade — Minimum 3 Inches, Maximum 3 Inches

Recommended Number of Lines 10 (Note: Maximum Length of Individual Line is 100 Feet.)

Minimum Spacing of Lines 7 1/2 Ft. Center to Center

Special Conditions Special conditions as per drawing of the end view of the plan.

See 1/4 Sec 10 T29N R20W N1/2 S1/4 combination 1200 x 750

tank OK due to difficult installation. A/B

PERMIT: Permission is hereby granted to the above named applicant to perform the work described in the application to the minimum specifications shown above and per attached site plan. This permit is granted upon express condition that the person to whom it is granted, and his agents, employees and workmen shall conform in all respects to ordinances of Washington County, Minnesota. This permit may be revoked at any time upon violation of any said ordinance, and permit shall be void if work is not commenced within six (6) months.

**INSTALLER MUST HOLD CURRENT SEPTIC INSTALLER LICENSE WITH WASHINGTON COUNTY.**

Approved: [Signature] Date 11/19/87  
Zoning Administrator/Authorized Agent

Comments CHANGES - AUTOMATIC LIFT STATION 5 @ 45'

Installation Approved [Signature] Date 12-9-87  
Inspector



# WASHINGTON COUNTY

## PLANNING DEPARTMENT

COURTHOUSE • 14900 61ST STREET NORTH • STILLWATER, MINNESOTA 55082  
612/439-3220

Robert J. Lockyear  
Planning Coordinator  
Allan R. Goodman  
Building Official

June 10, 1986

Boris Popov  
9242 Hudson Road  
Lake Elmo, MN 55042

Dear Mr. Popov:

We have reviewed the soil tests you submitted and have inspected the site described as retesting of filled area on Parcel F of Outlot A of the Croixdale Plat in Section 27 of the City of Afton.

The soils in the area tested are suitable under present codes for the installation of an on-site sewage treatment system. This approval applies to soil only and does not guarantee that the lot meets the necessary zoning requirements. The maximum drainfield depth in the filled area is 18", with a design rate for sizing the system of 10 mpi percolation rate. Installation of the system must be done in accordance with Earth Science Company's recommendations..

A septic permit will be issued when we receive a copy of this letter, verification of house size, permit application, and final site plan showing house and drainfield location in relation to lot lines, well, and other relevant physiographic features.

Sincerely,

Handwritten signature of Allan R. Goodman in cursive.

Allan R. Goodman  
Building Official

ARG/mlp

## Inspect Minnesota & Midwest Soil Testing

### Subsurface Sewage Treatment System Owner/Occupant Information

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

Date of Inspection: January 14, 2016	Time: 1:00 PM
Property Address: 4142 Penfield Ave S, Afton, MN	Zip: 55001
Property Owner: Steve & Krista Dorgan	Phone: 612-501-4160

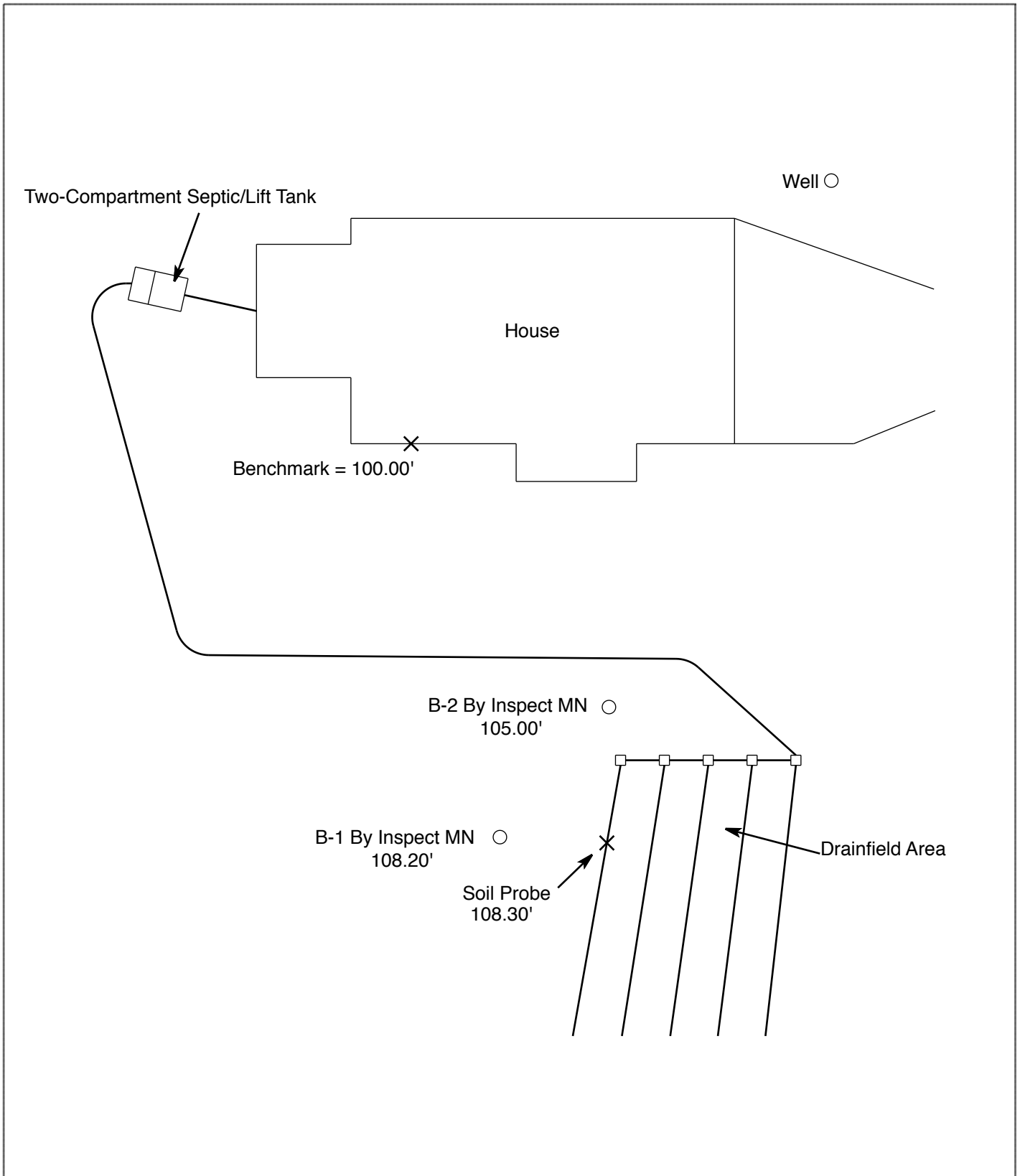
(Check appropriate sewer system component and indicate on site sketch on back of form).			
<u>Tank(s)</u>	<u>Tank(s)Material</u>	<u>Soil Treatment System</u>	<u>Other</u>
<input type="checkbox"/> Septic	<input type="checkbox"/> Fiberglass	<input checked="" type="checkbox"/> Rock trench	<input type="checkbox"/> Alternative system _____
<input type="checkbox"/> Aerobic	<input type="checkbox"/> Plastic	<input type="checkbox"/> Gravelless trench	<input type="checkbox"/> Experimental system _____
<input checked="" type="checkbox"/> Septic/Lift	<input type="checkbox"/> Metal	<input type="checkbox"/> Chamber trench	<input type="checkbox"/> Cesspool system _____
<input type="checkbox"/> Holding	<input checked="" type="checkbox"/> Concrete	<input type="checkbox"/> Seepage bed	<input type="checkbox"/> Other system _____
	<input type="checkbox"/> Block	<input type="checkbox"/> Mound	
	<input type="checkbox"/> Other _____	<input type="checkbox"/> At-grade	

Have any other compliance inspections been done on this system? Y		When/who? 2004/J.Gill	
Year house built: 1988	Year septic installed: 1988	Tank size (gals.): 1200/750 2-Comp	
How long has seller owned the property? 2004		Number of residents in home? 2-4	
Number of bedrooms? 3	Are all floors drained by gravity? Y		
Garbage disposal? Y		Whirlpool bath? Y	
More than one system (laundry, etc.)? N			
Does this property have any footing drain tiles connected to the septic system? N			
Are any buildings on this property such as garages or out-buildings connected to this system? N			
Are there any additional systems on this property serving other buildings? N			
Location of septic system on lot? Tank - South Side, Drainfield - East Side			
Location of water well on lot? Northwest 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? Y If yes, explain: Had to clear roots out of pipe at the tank, no other problems			
When was the system last pumped? 6/10/2014		Name of pumper: Pinky's	
How often pumped in previous years? Every 2		Is system on a monitoring plan? N	
Have you received notices from any government agency concerning this system? N			
Is your property located in a shoreland management area? N			
Do you have any additional information that should 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 unit of government 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: Interviewed Steve Dorgan By Telephone

Date: 1/21/2016



4142 Penfield Ave S, Afton, MN 55001

**NO SCALE**



## Log Of Soil Borings

Location of Project:		4142 Penfield Ave S, Afton, MN 55001	
Borings Made By:		Inspect Minnesota	Date: 1/14/16
Auger Used:		Hand/Bucket	Classification System: USDA
Boring Number:		1	Boring Number: 2
Surface Elevation of Boring	108.20' Benchmark = 100.00' front door threshold		Surface Elevation of Boring 105.00'
Depth In Inches	<u>Soils Encountered</u>		Depth In Inches <u>Soils Encountered</u>
0-38 38-47	7.5YR 3/4 Medium Coarse Sand (Fill) 10YR 4/4 Clay Loam With 10YR 5/1 & 7.5YR 5/8 Redox Last 3" Bedrock Fragments Refusal At 47" Bedrock		0-13 13-19 19-24 10YR 3/3 Silt Loam 10YR 4/4 Clay Loam 10YR 4/4 Clay Loam With 7.5YR 5/8 Redox Refusal At 24" Bedrock
105.05'	Elevation To Bottom Of Distribution Media	105.05'	Elevation To Bottom Of Distribution Media
-105.03	Depth To Redox Or End Of Boring	-103.42'	Depth To Redox Or End Of Boring
=0.02'/0"	Of Separation	=1.63'/20"	Of Separation
End Of Boring At:		47"	End Of Boring At: 24"
Redox Present At:		38"/105.03'	Redox Present At: 19"/103.42'
Standing Water Present At:		None	Standing Water Present At: None

Bottom Of Distribution Medium At: 39" Or Elevation 105.05' At Soil Probe

Brian L. Humpal, Inc. dba. Inspect Minnesota,  
Midwest Soil Testing DISCLAIMER SHEET

Relative to Subsurface Sewage Treatment System Compliance Inspections

1. This inspection/report is being performed for only the seller/owner of the property on which the septic system is located; there is no contract between Brian L. Humpal, Inc. and any other party except the seller/owner unless otherwise noted. In such case that the buyer of the property is paying for the inspection, the contract is between only the buyer of the property and Brian L. Humpal, Inc.; there is no contract with any other party unless otherwise noted.
2. Brian L. Humpal, Inc. has not been retained to warranty, guarantee, or certify the proper functioning of the system 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 a septic system, as well as the inability of Brian L. Humpal, Inc. to supervise or monitor the use or maintenance of the system, the report shall not be construed as a warranty by Brian L. Humpal, Inc. that the system will function properly for any particular party for any period of time.
3. Minimum Compliance Inspection requirements relative to this inspection and this report include only verification that the septic system 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 basement ejector pumps or exterior lift tank pumps and associated components as these are considered to be maintenance items. 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. Some persons may attempt to hide or conceal signs of previous back-ups.
4. Certification of this system does not warranty future use beyond the date of the inspection. Any system, 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. The average life expectancy of a system that has been properly designed, 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. Some parts of the system such as alarms, switches, pumps, and filters will most likely have to be 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 system is protective of public health and safety and is protective to groundwater at the date and time the inspection was performed. This inspection is not intended to determine if the system 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 system 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 system due to the addition of bedrooms, occupants, etc. In addition, this inspection is not intended to determine the quality of the original system design, the quality of the construction practices used while installing the system, or the quality of the materials used in constructing the system.
6. Brian L. Humpal, Inc. cannot guarantee the performance of subsurface sewage treatment system products 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: Client (person paying for inspection) understands that inspections conducted during winter weather (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. System 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, client 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

License # L2896

Date of Issuance:	May 12, 2015
Maintainer License Expires:	Dec 22, 2015
Installer License Expires:	Dec 22, 2015
Adv Inspector License Expires:	Dec 22, 2015
Adv Designer License Expires:	Dec 22, 2015

## Inspect Minnesota

### Designated Certified Individual (DCI)

Brian L. Humpal  
Brian L. Humpal  
Brian L. Humpal  
Brian L. Humpal  
Brian L. Humpal

### Certification Type

Service Provider (Certified)  
Maintainer (Certified)  
Installer (Certified)  
Advanced Inspector (Certified)  
Advanced Designer (Certified)

### Certification Expires

10/15/2017  
10/15/2017  
10/15/2017  
10/15/2017  
10/15/2017



**Minnesota Pollution Control Agency**

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

*Steven Giddings*  
Steven Giddings, Manager  
Environmental Business Assistance Section