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# Midwest Sewer Services

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

Brian Humpal  
MPCA Licensed Advanced Inspector

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## **SUBSURFACE SEWAGE TREATMENT SYSTEM (SSTS) COMPLIANCE REPORT**

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**Date:** May 11, 2020

**Time:** 9:45 AM

**Owner:** David Richert

**Inspection Address:** 20123 Orwell Ave N, Marine On St Croix, MN 55047

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### **REPORT SUMMARY**

I have performed an “MPCA Compliance Inspection” on this system, have reviewed the history of the system with the owner, David Richert, and have reviewed the original design/permit records on file at Washington County. This system consists of two pre-cast septic tanks, a pre-cast lift tank, and a mound. Smilie’s Sewer Service pumped the septic tanks and lift tank on May 11, 2020.

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

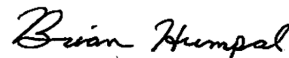
Midwest Sewer Services have been hired to perform a compliance inspection of this SSTS for compliance with local ordinances pursuant to Minn. Stat. § 115.55 (2013). This compliance inspection covers only the criteria required by Minn. Stat. § 115.55 Subd. 5a (2013) and Minn. R. 7080.1500 (2011). A compliance 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. Midwest Sewer Services 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.



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Christopher Uebe



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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): 5/11/2020

**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: 20123 Orwell Ave N, Marine On St Croix, MN 55047 Reason for inspection: Property Transfer

Property owner: David Richert Owner's phone: 763-688-4691

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 tank, and a mound.

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: Midwest Sewer Services License number: L2896

Inspector signature:  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: 20123 Orwell Ave N, Marine On St Croix, MN 55047

Inspector initials/Date: 5/11/2020 *BAU***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 tanks - 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:

Property address: 20123 Orwell Ave N, Marine On St Croix, MN 55047

Inspector initials/Date: 5/11/2020 *BACU*

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

Date of installation: 2014  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 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: \_\_\_\_\_  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.



DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT  
 GOVERNMENT CENTER  
 14949 62nd STREET NORTH P.O. BOX 6 STILLWATER, MN 55082-0006  
 Office: 651-430-6655 TTY: 651-430-6246 FAX: 651-430-6730

### Subsurface Sewage Treatment System Maintenance Permit

This section must be completed in its entirety to constitute a valid maintenance permit. This permit must be completed prior to performing maintenance activities and remain on-site for the duration of the maintenance activity.

Date of Maintenance: 5-11-20 Reason for Maintenance: Reg Maint  
 Property Address: 20123 Onwell Ave N Property Owner's Name: David & Jenny Richeart  
 Municipality: Marine ZIP: 55047 Property Identification Number: \_\_\_\_\_  
 Maintenance Permit No: 10702 v 12611 Maintainer Name and License No. Smilie's Sewer Service/L2428

Maintenance Performed	Tank Measurement (must be completed if tanks NOT pumped)
<input checked="" type="checkbox"/> Tank(s) Pumped <input type="checkbox"/> Sludge and scum measured Do tanks need to be pumped? <input type="checkbox"/> Yes <input type="checkbox"/> No (if no provide measurements)	Liquid Level of Tank _____ in Sludge Level in Tank _____ in Scum Level in Tank _____ in Sludge + Scum _____ / Liquid Level _____ X 100 = % Sludge & Scum _____ Tanks must be pumped if 25% or greater

- Access used to remove septage:  Maintenance Hole  Other (enter authorization code)
- Were all covers securely replaced?  Yes  No
- Is there evidence of tank leakage from a septic, holding, pretreatment or pump tank below the operating depth or evidence of damaged, cracked, or structurally unsound maintenance hole covers?  Yes  No

Tank	Leaking Out	Leaking In	Cover Damage
Septic/Holding Tank #1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Septic/Holding Tank #2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Pretreatment Tank	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Pump Tank	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

4. How many gallons of septage were removed?  
 Tank #1 1500 gal Tank #2 1000 gal Pretreatment tank \_\_\_\_\_ gal Pump Tank 300 gal

5. Other information: List any troubleshooting, minor repairs conducted, tank safety concerns, or other concerns.

6. Location of septage disposal: Wash Co Land Apply

Smilie's Sewer Service  
 PO BOX 100  
 Scandia, MN 55073  
 License# 2428 P: 651-433-3934

8 of 10  
**Midwest Sewer 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: May 11, 2020		Time: 9:45 AM	
Property Address: 20123 Orwell Ave N, Marine On St Croix, MN		Zip: 55047	
Property Owner: David Richert		Phone: 763-688-4691	
Tank(s) <input checked="" type="checkbox"/> Septic 2 <input type="checkbox"/> Aerobic <input checked="" type="checkbox"/> Lift <input type="checkbox"/> Holding <input type="checkbox"/> Other:	Tank(s)Material <input type="checkbox"/> Fiberglass <input type="checkbox"/> Plastic <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Block <input type="checkbox"/> Other _____	Soil Treatment System <input type="checkbox"/> Rock trench <input type="checkbox"/> Gravelless trench <input type="checkbox"/> Chamber trench <input type="checkbox"/> Seepage bed <input checked="" type="checkbox"/> Mound <input type="checkbox"/> At-grade _____	Other <input type="checkbox"/> Alternative system _____ <input type="checkbox"/> Experimental system _____ <input type="checkbox"/> Cesspool system _____ <input type="checkbox"/> Other system _____
Are the tank maintenance covers accessible? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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: 2014	Year septic installed: 2014	Tank size (gals.): 1-1500, 1-1000	
How long has seller owned the property? 2014		Number of residents in home? 5-6	
Number of bedrooms? 4		Are all floors drained by gravity? Y	
Garbage disposal? N		Whirlpool bath? N	
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? East Side			
Location of water well on lot? West 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? 5/11/2020		Name of pumper: Smilie's Sewer Service	
How often pumped in previous years?		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 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: \_\_\_\_\_

<b>SITE EVALUATION</b>		<b>COUNTY USE ONLY</b>		<b>CHECK ALL THAT APPLY:</b>	
EVALUATOR: <i>P. Gamm</i>				<input type="checkbox"/> NEW	<input type="checkbox"/> CLASS V
PROPERTY ADDRESS: <i>Lot 5 Blk 2 Blwood's Pleasant Glen</i>		GEOCODE:		<input type="checkbox"/> EXISTING	<input type="checkbox"/> COMMERCIAL ESTABLISHMENT
DATE: <i>9/25/13</i>		TIME: <i>2:00 PM</i>		<input type="checkbox"/> DWELLING	<input type="checkbox"/> FBL ESTABLISHMENT
				<input type="checkbox"/> SHORELAND	<input type="checkbox"/> IN WELLHEAD PROTECTION AREA

SOIL REVIEW										
SOIL CLASSIFICATION:					PARENT MATERIAL:					
SOIL BORING 1					SOIL BORING 2					
ELEVATION OF BORING:		LOCATION:			ELEVATION OF BORING:		LOCATION:			
GPS COORDINATES: LAT:		LON:			GPS COORDINATES: LAT:		LON:			
<input type="checkbox"/> BORING		<input type="checkbox"/> PIT			<input type="checkbox"/> PROBE		<input type="checkbox"/> BORING		<input type="checkbox"/> PIT	<input type="checkbox"/> PROBE
SOIL HORIZON DEPTH (IN)	TEXTURE	COLOR	STRUCTURE	REDOXIMORPHIC FEATURES	SOIL HORIZON DEPTH (IN)	TEXTURE	COLOR	STRUCTURE	REDOXIMORPHIC FEATURES	
<i>0-8</i>	<i>silt loam</i>	<i>10 3/3</i>	<i>Gran</i>	<i>N</i>						
<i>8-20</i>	<i>silt loam</i>	<i>10 4/4</i>	<i>sub</i>	<i>N</i>						
<i>20-20 1/2</i>	<i>clay loam</i>	<i>10 4/4</i>	<i>sub</i>	<i>Y@ 32" 10 5/2 5/6</i>						

SOIL REVIEW CONCLUSIONS			
<input type="checkbox"/> SITE SUITABLE <input type="checkbox"/> UNSUITABLE SOIL <input type="checkbox"/> DISTURBED SOIL <input type="checkbox"/> COMPACTED SOIL	DEPTH INFORMATION:		SOIL TEXTURE:
	STANDING WATER:	SATURATED SOIL:	SOIL SIZING FACTOR:
	BEDROCK:	MAXIMUM DEPTH OF SYSTEM:	LINEAR LOADING RATE:

SITE REVIEW		
CHECK ALL THAT APPLY	EASEMENTS ON LOT:	SETBACKS
<input type="checkbox"/> WETLAND OR WETLAND VEGETATION <input type="checkbox"/> POND, LAKE, STREAM, RIVER <input type="checkbox"/> FLOODPLAIN <input type="checkbox"/> 10 YEAR FLOOD ELEVATION _____ <input type="checkbox"/> BLUFFLINE <input type="checkbox"/> WELL WELL CASING DEPTH: _____	<input type="checkbox"/> UTILITY <input type="checkbox"/> DRAINAGE <input type="checkbox"/> OTHER	BLUFFLINE
		RIVER
		POND, LAKE, STREAM, WETLAND
		WELL

COMMENTS/NOTES:

*Soil very Dry      Silt skins on pecks 0" +*

*Mound Drawn Across Core logs*

*Dub 34"*

# OSTP Soil Observation Log



Client/ Address:		Lot 5 Block 1 Elewoods Pheasant Glen			Legal Description/ GPS:		Lot 5 Block 1 Elwoods Pheasant Glen			
Soil parent material(s): (Check all that apply) <input type="checkbox"/> Outwash <input type="checkbox"/> Lacustrine <input type="checkbox"/> Loess <input checked="" type="checkbox"/> Till <input type="checkbox"/> Alluvium <input type="checkbox"/> Bedrock <input type="checkbox"/> Organic Matter										
Landscape Position: (check one) <input type="checkbox"/> Summit <input type="checkbox"/> Shoulder <input checked="" type="checkbox"/> Back/Side Slope <input type="checkbox"/> Foot Slope <input type="checkbox"/> Toe Slope							Slope shape: linear			
Vegetation:		Ag Field		Soil survey map units:		Slope%:		Elevation:		
						3.0		99.4		
Weather Conditions/Time of Day:			Sunny, mid afternoon				Date:		Sept 13th, 2013	
Observation #/Location:		B1								
Depth (in)	Texture	Coarse Frag. %	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Indicator(s)	Structure			
							Shape	Grade	Consistence	
0-10	Silt Loam	0-15%	10yr 3/3 & 3/2				Granular	Moderate	Friable	
10-18	Silt Loam	0-15%	7.5yr 4/4	10yr 5/3 silt ctgs and clay skins			Blocky	Moderate	Friable	
18-36	Silty Clay Loam	0-15%	7.5yr 4/4	10yr 6/2 & 7/3 silt ctgs and clay skins	Concentrations, depletions	S4	Blocky	Moderate	Firm	
Comments: Few Fine Faint Fe Conc at 26", Common Distinct Fe conc and depletions at 30"										
I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.										
HomeStead Septic						L583		9/13/2013		
(Designer)			(Signature)			(License #)		(Date)		



# Additional Soil Observation Logs



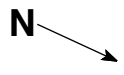
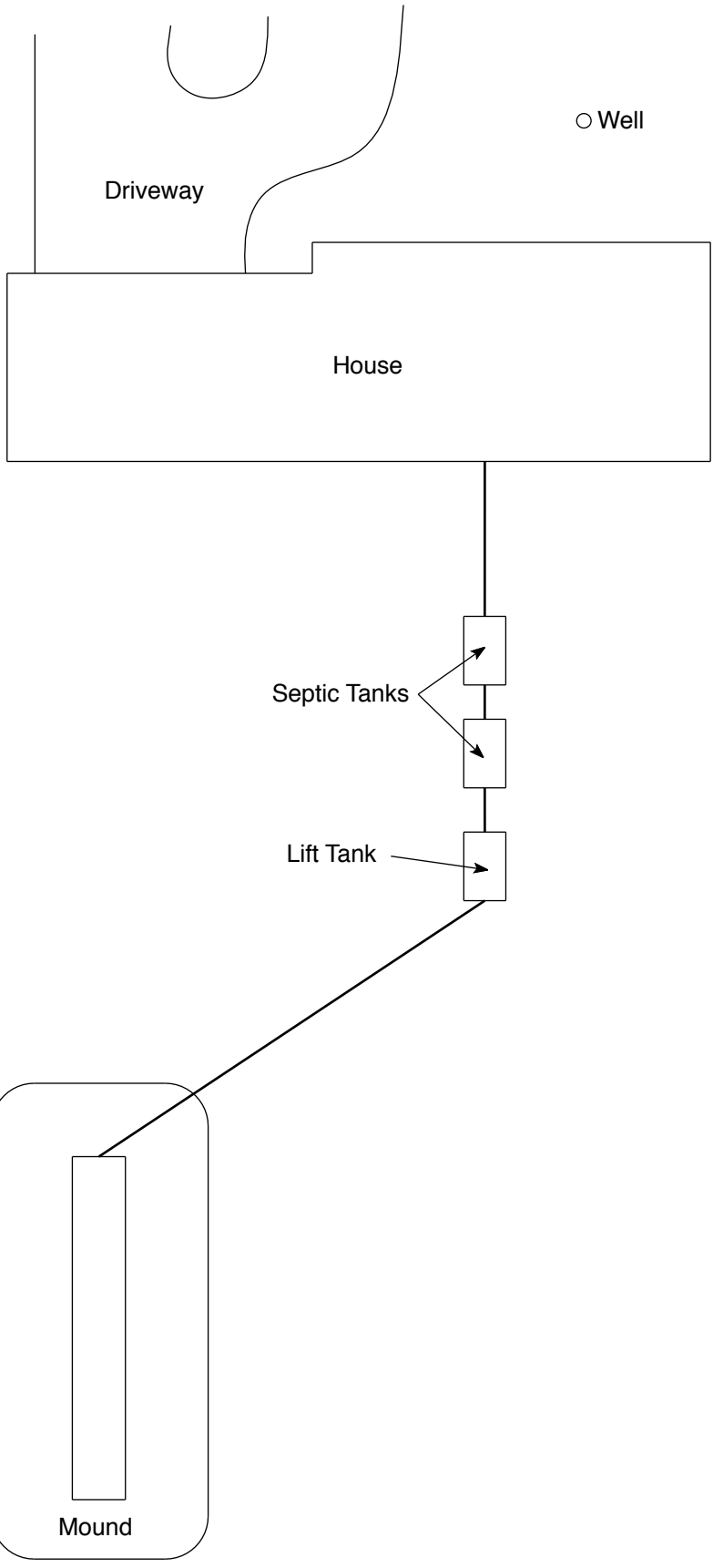
Client/ Address:	Lot 5 block 1 Elwood Pheasant Glen	Legal Description/ GPS:
Soil parent material(s): (Check all that apply) <input type="checkbox"/> Outwash <input type="checkbox"/> Lacustrine <input type="checkbox"/> Loess <input checked="" type="checkbox"/> Till <input type="checkbox"/> Alluvium <input type="checkbox"/> Bedrock <input type="checkbox"/> Organic Matter		
Landscape Position: (check one) <input type="checkbox"/> Summit <input type="checkbox"/> Shoulder <input checked="" type="checkbox"/> Back/Side Slope <input type="checkbox"/> Foot Slope <input type="checkbox"/> Toe Slope		Slope shape: Linear
Vegetation: ag field	Soil survey map units:	Slope%: 3.0 Elevation:
Weather Conditions/Time of Day:	afternoon, sunny	Date: Sept 13th, 2013

Observation #/Location:		B2							
Depth (in)	Texture	Coarse Frag. %	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Indicator(s)	Structure		
							Shape	Grade	Consistence
0-8	loam	0-15%	10yr 3/2 & 3/3				Granular	Moderate	Friable
8-18	silty clay loam	0-15%	7.5yr 4/4	10yr 5/3 & 4/2 silt ctgs & clay skins			Blocky	Moderate	Friable
18-40	silty clay loam	0-15%	7.5yr 4/4	10yr 5/3 & 4/2 silt ctgs & clay skins	Concentrations, depletions	S4	Blocky	Moderate	Firm

Comments: FFF Fe Conc at 30", CD Fe conc and dep at 35"

Observation #/Location:		B3							
Depth (in)	Texture	Coarse Frag. %	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Indicator(s)	Structure		
							Shape	Grade	Consistence
0-8	silt loam	0-15%	10yr 3/2 & 3/3				Granular	Moderate	Friable
8-20	silt loam	0-15%	7.5yr 4/4	some 10yr 3/3 & 10yr 5/3 silt ctgs			Blocky	Moderate	Friable
20-36	silty clay loam	0-15%	7.5yr 4/4	10yr 5/3 silt ctgs & 10yr 5/2 clay skins	Concentrations, depletions	S4	Blocky	Moderate	Firm

Comments: common, fine, distinct Fe conc and dep at 32"



**NO SCALE**

**20123 Orwell Ave N, Marine On St Croix, MN 55047**