060349001-2024

MINNESOTA POLLUTION CONTROL AGENCY

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

Compliance inspection report form

Existing Subsurface Sewage Treatment System (SSTS)

Doc Type: Compliance and Enforcement

Instructions: Inspector must submit completed form to Local Governmental Unit (LGU) and system owner within 15 days of final determination of compliance or noncompliance. Instructions for filling out this form are located on the Minnesota Pollution Control Agency (MPCA) website at https://www.pca.state.mn.us/sites/default/files/wq-wwists4-31a.pdf.

Property information

Local tracking number:

Parcel ID# or Sec/Twp/Range: 060349001 Reason for Inspection lake study

Local regulatory authority info: Becker County

Property address: 14133 GLOBSTAD BEACH RD, LAKE PARK MN 56554

Owner/representative: David Calderwood Owner's phone: 701-361-4138

Brief system description: 1,000 gallon septic tank gravity to chamber trenches

System status

System status on date (mm/dd/yyyy): 7/12/2024

☒ **Compliant – Certificate of compliance***

*(**Valid for 3 years from report date** unless evidence of an imminent threat to public health or safety requiring removal and abatement under section 145A.04, subdivision 8 is discovered or a shorter time frame exists in Local Ordinance.)*

Note: Compliance indicates conformance with Minn. R. 7080.1500 as of system status date above and does not guarantee future performance.

☐ **Noncompliant – Notice of noncompliance**

Systems failing to protect ground water must be upgraded, replaced, or use discontinued within the time required by local ordinance.

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 or under section 145A.04 subdivision 8.

Reason(s) for noncompliance (check all applicable)

- ☐ Impact on public health (Compliance component #1) – *Imminent threat to public health and safety*
- ☐ Tank integrity (Compliance component #2) – *Failing to protect groundwater*
- ☐ Other Compliance Conditions (Compliance component #3) – *Imminent threat to public health and safety*
- ☐ Other Compliance Conditions (Compliance component #3) – *Failing to protect groundwater*
- ☐ System not abandoned according to Minn. R. 7080.2500 (Compliance component #3) – *Failing to protect groundwater*
- ☐ Soil separation (Compliance component #5) – *Failing to protect groundwater*
- ☐ Operating permit/monitoring plan requirements (Compliance component #4) – *Noncompliant - local ordinance applies*

Comments or recommendations

System is not currently being used.

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.

***By typing my name below**, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing this form.*

Business name: Cubed B LLC Certification number: C1835

Inspector signature: Brant B Bigger License number: L4142

(This document has been electronically signed)

Phone: 218-234-6906

Necessary or locally required supporting documentation (must be attached)

☒ Soil observation logs ☐ System/As-Built ☐ Locally required forms ☐ Tank Integrity Assessment ☐ Operating Permit

☒ Other information (list): Site Sketch

Property Address: 14133 GLOBSTAD BEACH RD, LAKE PARK MN 56554
Business Name: Cubed B LLC Date: 7/12/2024

1. Impact on public health – Compliance component #1 of 5

Compliance criteria:	
System discharges sewage to the ground surface	☐ Yes* ☒ No
System discharges sewage to drain tile or surface waters.	☐ Yes* ☒ No
System causes sewage backup into dwelling or establishment.	☐ Yes* ☒ No

Any "yes" answer above indicates the system is an imminent threat to public health and safety.

Attached supporting documentation:

☐ Other:

☒ Not applicable

Describe verification methods and results:

Visual inspection of the immediate area did not indicate any issues of a surface outlet or seeping in the yard.

Property owner testified on 12 Jul 2024 that there were not any issues with the septic system.

2. Tank integrity – Compliance component #2 of 5

Compliance criteria:	
System consists of a seepage pit, cesspool, drywell, leaching pit, or other pit?	☐ Yes* ☒ No
Sewage tank(s) leak below their designed operating depth?	☐ Yes* ☒ No
If yes, which sewage tank(s) leaks:	

Any "yes" answer above indicates the system is failing to protect groundwater.

Attached supporting documentation:

☒ Empty tank(s) viewed by inspector

Name of maintenance business: Dewey's Septic

License number of maintenance business: L2884

Date of maintenance: 7/10/2024

☐ Existing tank integrity assessment (Attach)

Date of maintenance (mm/dd/yyyy): (must be within three years)

(See form instructions to ensure assessment complies with Minn. R. 7082.0700 subp. 4 B (1))

☐ Tank is Noncompliant (pumping not necessary – explain below)

☐ Other:

Describe verification methods and results:

Examined construction records and a solid tank was installed.

Visually insptected the interior of the tank with a camera. No cracks were observed. Septage level had been at the bottom of the tank outlet.

Property Address: 14133 GLOBSTAD BEACH RD, LAKE PARK MN 56554
Business Name: Cubed B LLC Date: 7/12/2024

3. Other compliance conditions – Compliance component #3 of 5

3a. Maintenance hole covers appear to be structurally unsound (damaged, cracked, etc.), or unsecured?
☐ Yes* ☐ No ☒ Unknown

3b. Other issues *(electrical hazards, etc.)* to immediately and adversely impact public health or safety? ☐ Yes* ☒ No ☐ Unknown

Yes to 3a or 3b - System is an imminent threat to public health and safety.

3c. System is non-protective of ground water for other conditions as determined by inspector? ☐ Yes* ☒ No

3d. System not abandoned in accordance with Minn. R. 7080.2500? ☐ Yes* ☒ No

Yes to 3c or 3d - System is failing to protect groundwater.

Describe verification methods and results:

The mainenance hole cover is below the soil surface.

Attached supporting documentation: ☒ Not applicable ☐ _____

4. Operating permit and nitrogen BMP* – Compliance component #4 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 specified in the system design? ☐ 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. Have the operating permit requirements been met? ☐ Yes ☐ No

b. Is the required nitrogen BMP in place and properly functioning? ☐ Yes ☐ No

Any "no" answer indicates noncompliance.

Describe verification methods and results:

Attached supporting documentation: ☐ Operating permit (Attach) ☐

Property Address: 14133 GLOBSTAD BEACH RD, LAKE PARK MN 56554
Business Name: Cubed B LLC Date: 7/12/2024

5. Soil separation – Compliance component #5 of 5

Date of installation 4/16/2015 *(mm/dd/yyyy)* ☐ Unknown

Shoreland/Wellhead protection/Food beverage lodging? ☒ Yes ☐ No

Attached supporting documentation:

☒ Soil observation logs completed for the report
☐ Two previous verifications of required vertical separation
☐ Not applicable (No soil treatment area)
☐ _____

Compliance criteria (select one):

5a. *For systems built prior to April 1, 1996, and not located in Shoreland or Wellhead Protection Area or not serving a food, beverage or lodging establishment:* Drainfield has at least a two-foot vertical separation distance from periodically saturated soil or bedrock.	☐ Yes ☐ No*
5b. *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:* Drainfield has a three-foot vertical separation distance from periodically saturated soil or bedrock.*	☒ Yes ☐ No*
5c. *"Experimental", "Other", or "Performance" systems built under pre-2008 Rules; Type IV or V systems built under 2008 Rules 7080. 2350 or 7080.2400 (Intermediate Inspector License required ≤ 2,500 gallons per day; Advanced Inspector License required > 2,500 gallons per day)* Drainfield meets the designed vertical separation distance from periodically saturated soil or bedrock.	☐ Yes ☐ No*

Indicate depths or elevations

A. Bottom of distribution media	87' 4"
B. Periodically saturated soil/bedrock	84' 4"
C. System separation	36"
D. Required compliance separation*	31"

*May be reduced up to 15 percent if allowed by Local Ordinance.

Any "no" answer above indicates the system is failing to protect groundwater.

Describe verification methods and results:

Conducted a soil boring (elevation 88' 6"). Redoximorphic features were not found through 50" depth in the boring (elevation 98' 4"")

Benchmark elevation (100') is located at to top of the well that is SW of the system.

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.*

University of Minnesota Onsite Sewage Treatment Program

Soil Observation Log

Project ID:

v 03.15.2023

Client: David Calderwood		Location / Address:	060724000 / 14148 GLOBSTAD BEACH RD, LAKE PARK MN
Soil parent material(s): (Check all that apply)	☑ Outwash ☐ Lacustrine ☐ Loess ☐ Till ☐ Alluvium ☐ Bedrock ☐ Organic Matter ☐ Disturbed/Fill		
Landscape Position: Foot Slope	Slope %: 2.0	Slope shape: Linear, Linear	Flooding/Run-On potential: No
Vegetation: Lawn	Soil survey map units: 1138—Rushlake & Hangaard		Surface Elevation-Relative to benchmark: 93' 1"
Date/Time of Day/Weather Conditions:	12-Jul-24	7:30 hazy	Limiting Layer Elevation: 91' 1"
Observation #/Location: #1	SE of STA		Observation Type: Auger

Depth (in)	Texture	Rock Frag. %	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Indicator(s)	Structure		
							Shape	Grade	Consistence
0-20	Medium Loamy Sand	5	10YR 2/2		None	None	Blocky	Weak	Friable
20-24	Medium Sandy Loam	5	10YR 3/2		None	None	Blocky	Weak	Friable
24-38	Medium Sandy Loam	5	10YR 3/2	5YR 4/6	Concentrations	S2	Blocky	Weak	Friable
				10YR 5/2	Depletions	S2			
38-42	Coarse Sand	15	10YR 4/3	7.5YR 4/6	Concentrations	S2	Single grain	Structureless	Loose
			7.5YR 4/6	10YR 6/2	Depletions	S2			

Comments: Benchmark elevation (100') is located at to top of the electrical meter enclosure on the SW property corner.

I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.

Brant Bigger	R Bigger	L4142	21-Jul-24
(Designer/Inspector)	(Signature)	(License #)	(Date)

Optional Verification: I hereby certify that this soil observation was verified according to Minn. R. 7082.0500 subp. 3 A. The signature below represents an infield verification of the periodically saturated soil or bedrock at the proposed soil treatment and dispersal site.

(LGU/Designer/Inspector)	(Signature)	(Cert #)	(Date)

Textures:	
C	Clay
SiC	Silty Clay
SC	Sandy Clay
CL	Clay Loam
SiCL	Silty Clay Loam
SCL	Sandy Clay Loam
Si	Silt
SiL	Silt Loam
L	Loam
SL	Sandy Loam*
LS	Loamy Sand*
S	Sand*

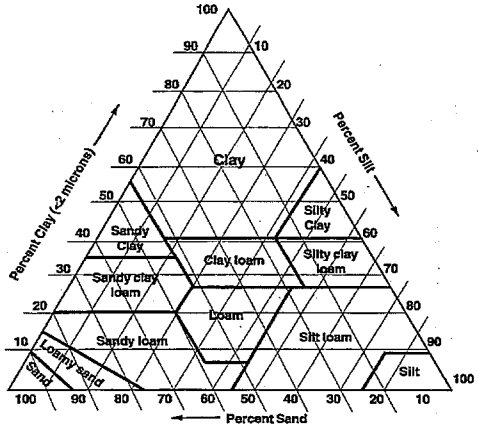
*Sand Modifiers:	
Co	Coarse
M	Medium
F	Fine
VF	Very Fine

Topsoil Indicator(s) of Saturation:

T1. Wetland Vegetation
T2. Depressional Landscape
T3. Organic texture or organic modifiers
T4. N 2.5/ 0 color
T5. Redox features in topsoil
T6. Hydraulic indicators

Subsoil Indicator(s) of Saturation:

S1. Depleted matrix (value >/=4 and chroma </=2)
S2. Distinct gray or red redox features (any Matrix Hue)
S3. Matrix Hue of 5Y with a chroma </= 3
S4. Matrix Hue of 7.5 YR or redder with faint redox concentrations or redox depletions



Shape:

Granular	The peds are approximately spherical or polyhedral and are commonly found in topsoil. These are the small, rounded peds that hang onto roots when soil is turned over.
Platy	The peds are flat and plate like. They are oriented horizontally and are usually overlapping. Platy structure is commonly found in forested areas just below the leaf litter or shallow topsoil.
Blocky	The peds are block-like or polyhedral, and are bounded by flat or slightly rounded surface that are castings of the faces of surrounding peds. Blocky structure is commonly found in the lower topsoil and subsoil.
Prismatic	Flat or slightly rounded vertical faces bound the individual peds. Peds are distinctly longer vertically, and faces are typically casts or molds of adjoining peds. Prismatic structure is commonly found in the lower subsoil.
Single Grain	The structure found in a sandy soil. The individual particles are not held together.

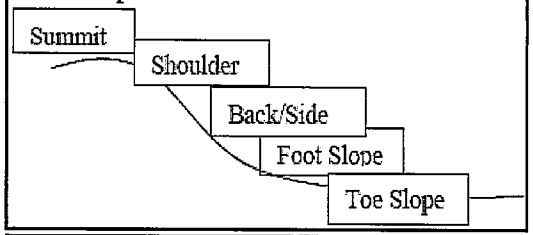
Grade:

Loose	No peds, sandy soil
Weak	Poorly formed, indistinct peds, barely observable in place
Moderate	Well formed, distinct peds, moderately durable and evident, but not distinct in undisturbed soil
Strong	Durable peds that are quite evident in un-displaced soil, adhere weakly to one another, withstand displacement, and become separated when soil is disturbed
Massive	No observable aggregates, or no orderly arrangement of natural lines of weakness

Consistence:

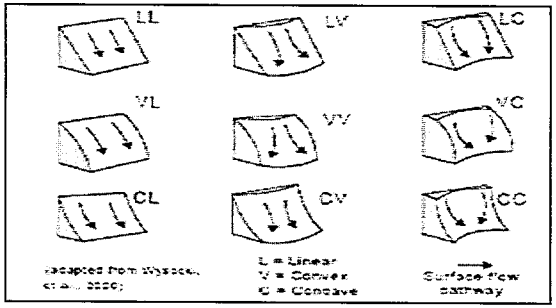
Loose	Intact specimen not available
Friable	Slight force between fingers
Firm	Moderate force between fingers
Extremely Firm	Moderate force between hands or slight foot pressure
Rigid	Foot pressure

Landscape Position:



Slope Shape:

Slope shape is described in two directions:
up and down slope (perpendicular to the contour),
and across slope (along the horizontal contour);
e.g. Linear, Convex or LV'.



Cubed B LLC
SEPTIC SYSTEM DESIGN & INSPECTION

BRANT B. BIGGER
Owner

13248 US Hwy 10
Lake Park, MN 56554

218-234-6906

brant.bigger@gmail.com

cubedbllc.com

David Calderwood
060724000
12 Jul 2024

Scale: 1" = 32'

N

060349001-2024

MINNESOTA POLLUTION CONTROL AGENCY

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

Compliance inspection report form

Existing Subsurface Sewage Treatment System (SSTS)

Doc Type: Compliance and Enforcement

Instructions: Inspector must submit completed form to Local Governmental Unit (LGU) and system owner within 15 days of final determination of compliance or noncompliance. Instructions for filling out this form are located on the Minnesota Pollution Control Agency (MPCA) website at https://www.pca.state.mn.us/sites/default/files/wq-wwists4-31a.pdf.

Property information

Local tracking number:

Parcel ID# or Sec/Twp/Range: 060349001 Reason for Inspection lake study

Local regulatory authority info: Becker County

Property address: 14133 GLOBSTAD BEACH RD, LAKE PARK MN 56554

Owner/representative: David Calderwood Owner's phone: 701-361-4138

Brief system description: 1,000 gallon septic tank gravity to chamber trenches

System status

System status on date (mm/dd/yyyy): 7/12/2024

☒ **Compliant – Certificate of compliance***

*(**Valid for 3 years from report date** unless evidence of an imminent threat to public health or safety requiring removal and abatement under section 145A.04, subdivision 8 is discovered or a shorter time frame exists in Local Ordinance.)*

Note: Compliance indicates conformance with Minn. R. 7080.1500 as of system status date above and does not guarantee future performance.

☐ **Noncompliant – Notice of noncompliance**

Systems failing to protect ground water must be upgraded, replaced, or use discontinued within the time required by local ordinance.

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 or under section 145A.04 subdivision 8.

Reason(s) for noncompliance (check all applicable)

- ☐ Impact on public health (Compliance component #1) – *Imminent threat to public health and safety*
- ☐ Tank integrity (Compliance component #2) – *Failing to protect groundwater*
- ☐ Other Compliance Conditions (Compliance component #3) – *Imminent threat to public health and safety*
- ☐ Other Compliance Conditions (Compliance component #3) – *Failing to protect groundwater*
- ☐ System not abandoned according to Minn. R. 7080.2500 (Compliance component #3) – *Failing to protect groundwater*
- ☐ Soil separation (Compliance component #5) – *Failing to protect groundwater*
- ☐ Operating permit/monitoring plan requirements (Compliance component #4) – *Noncompliant - local ordinance applies*

Comments or recommendations

System is not currently being used.

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.

***By typing my name below**, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing this form.*

Business name: Cubed B LLC Certification number: C1835

Inspector signature: Brant B Bigger License number: L4142

*(This document has **been electronically signed**)*

Phone: 218-234-6906

Necessary or locally required supporting documentation (must be attached)

☒ Soil observation logs ☐ System/As-Built ☐ Locally required forms ☐ Tank Integrity Assessment ☐ Operating Permit

☒ Other information (list): Site Sketch

Property Address: 14133 GLOBSTAD BEACH RD, LAKE PARK MN 56554
Business Name: Cubed B LLC Date: 7/12/2024

1. Impact on public health – Compliance component #1 of 5

Compliance criteria:	
System discharges sewage to the ground surface	☐ Yes* ☒ No
System discharges sewage to drain tile or surface waters.	☐ Yes* ☒ No
System causes sewage backup into dwelling or establishment.	☐ Yes* ☒ No

Any "yes" answer above indicates the system is an imminent threat to public health and safety.

Attached supporting documentation:

☐ Other:

☒ Not applicable

Describe verification methods and results:

Visual inspection of the immediate area did not indicate any issues of a surface outlet or seeping in the yard.

Property owner testified on 12 Jul 2024 that there were not any issues with the septic system.

2. Tank integrity – Compliance component #2 of 5

Compliance criteria:	
System consists of a seepage pit, cesspool, drywell, leaching pit, or other pit?	☐ Yes* ☒ No
Sewage tank(s) leak below their designed operating depth?	☐ Yes* ☒ No
If yes, which sewage tank(s) leaks:	

Any "yes" answer above indicates the system is failing to protect groundwater.

Attached supporting documentation:

☒ Empty tank(s) viewed by inspector

Name of maintenance business: Dewey's Septic

License number of maintenance business: L2884

Date of maintenance: 7/10/2024

☐ Existing tank integrity assessment (Attach)

Date of maintenance (mm/dd/yyyy): (must be within three years)

(See form instructions to ensure assessment complies with Minn. R. 7082.0700 subp. 4 B (1))

☐ Tank is Noncompliant (pumping not necessary – explain below)

☐ Other:

Describe verification methods and results:

Examined construction records and a solid tank was installed.

Visually insptected the interior of the tank with a camera. No cracks were observed. Septage level had been at the bottom of the tank outlet.

Property Address: 14133 GLOBSTAD BEACH RD, LAKE PARK MN 56554
Business Name: Cubed B LLC Date: 7/12/2024

3. Other compliance conditions – Compliance component #3 of 5

3a. Maintenance hole covers appear to be structurally unsound (damaged, cracked, etc.), or unsecured?
☐ Yes* ☐ No ☒ Unknown

3b. Other issues *(electrical hazards, etc.)* to immediately and adversely impact public health or safety? ☐ Yes* ☒ No ☐ Unknown

Yes to 3a or 3b - System is an imminent threat to public health and safety.

3c. System is non-protective of ground water for other conditions as determined by inspector? ☐ Yes* ☒ No

3d. System not abandoned in accordance with Minn. R. 7080.2500? ☐ Yes* ☒ No

Yes to 3c or 3d - System is failing to protect groundwater.

Describe verification methods and results:

The mainenance hole cover is below the soil surface.

Attached supporting documentation: ☒ Not applicable ☐ _____

4. Operating permit and nitrogen BMP* – Compliance component #4 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 specified in the system design? ☐ 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. Have the operating permit requirements been met? ☐ Yes ☐ No

b. Is the required nitrogen BMP in place and properly functioning? ☐ Yes ☐ No

Any "no" answer indicates noncompliance.

Describe verification methods and results:

Attached supporting documentation: ☐ Operating permit (Attach) ☐

Property Address: 14133 GLOBSTAD BEACH RD, LAKE PARK MN 56554
Business Name: Cubed B LLC Date: 7/12/2024

5. Soil separation – Compliance component #5 of 5

Date of installation 4/16/2015 *(mm/dd/yyyy)* ☐ Unknown

Shoreland/Wellhead protection/Food beverage lodging? ☒ Yes ☐ No

Attached supporting documentation:

☒ Soil observation logs completed for the report
☐ Two previous verifications of required vertical separation
☐ Not applicable (No soil treatment area)
☐ _____

Compliance criteria (select one):

5a. *For systems built prior to April 1, 1996, and not located in Shoreland or Wellhead Protection Area or not serving a food, beverage or lodging establishment:* Drainfield has at least a two-foot vertical separation distance from periodically saturated soil or bedrock.	☐ Yes ☐ No*
5b. *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:* Drainfield has a three-foot vertical separation distance from periodically saturated soil or bedrock.*	☒ Yes ☐ No*
5c. *"Experimental", "Other", or "Performance" systems built under pre-2008 Rules; Type IV or V systems built under 2008 Rules 7080. 2350 or 7080.2400 (Intermediate Inspector License required ≤ 2,500 gallons per day; Advanced Inspector License required > 2,500 gallons per day)* Drainfield meets the designed vertical separation distance from periodically saturated soil or bedrock.	☐ Yes ☐ No*

Indicate depths or elevations

A. Bottom of distribution media	87' 4"
B. Periodically saturated soil/bedrock	84' 4"
C. System separation	36"
D. Required compliance separation*	31"

*May be reduced up to 15 percent if allowed by Local Ordinance.

***Any "no" answer above indicates the system is failing to protect groundwater.**

Describe verification methods and results:

Conducted a soil boring (elevation 88' 6"). Redoximorphic features were not found through 50" depth in the boring (elevation 84' 4")

Benchmark elevation (100') is located at to top of the well that is SW of the system.

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.*

University of Minnesota
ONSITE SEWAGE TREATMENT PROGRAM

Soil Observation Log

Project ID:

v 03.15.2023

Client:	David Calderwood				Location / Address:	060724000 / 14148 GLOBSTAD BEACH RD, LAKE PARK MN	
Soil parent material(s): (Check all that apply)	☑ Outwash	☐ Lacustrine	☐ Loess	☐ Till	☐ Alluvium	☐ Bedrock	☐ Organic Matter	☐ Disturbed/Fill
Landscape Position:	Back/Side Slope	Slope %:	6.0	Slope shape:	Linear, Linear	Flooding/Run-On potential:	No
Vegetation:	Lawn	Soil survey map units:	711C—Arvilla-Sandberg cplx			Surface Elevation-Relative to benchmark:	88' 6"
Date/Time of Day/Weather Conditions:	12-Jul-24	8:30	hazy			Limiting Layer Elevation:	84' 4"
Observation #/Location:	#1	N of STA		Observation Type:	Auger		

Depth (in)	Texture	Rock Frag. %	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Indicator(s)	Structure: Shape	Structure: Grade	Structure: Consistence
0-8	Medium Loamy Sand	10	10YR 3/3		None	None	Single grain	Structureless	Loose
8-50	Medium Sand	10	10YR 5/4		None	None	Single grain	Structureless	Loose

Comments: Benchmark elevation (100') is located at to top of the well that is SW of the system.

I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.

Brant Bigger		L4142	21-Jul-24
(Designer/Inspector)	(Signature)	(License #)	(Date)

Optional Verification: I hereby certify that this soil observation was verified according to Minn. R. 7082.0500 subp. 3 A. The signature below represents an infield verification of the periodically saturated soil or bedrock at the proposed soil treatment and dispersal site.

(LGU/Designer/Inspector)	(Signature)	(Cert #)	(Date)

Textures:	
C	Clay
SiC	Silty Clay
SC	Sandy Clay
CL	Clay Loam
SiCL	Silty Clay Loam
SCL	Sandy Clay Loam
Si	Silt
SiL	Silt Loam
L	Loam
SL	Sandy Loam*
LS	Loamy Sand*
S	Sand*

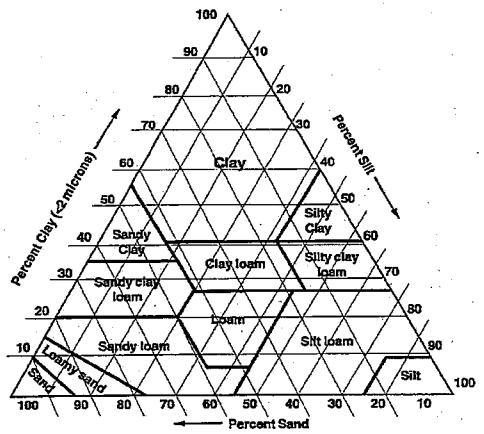
*Sand Modifiers:	
Co	Coarse
M	Medium
F	Fine
VF	Very Fine

Topsoil Indicator(s) of Saturation:

T1. Wetland Vegetation
T2. Depressional Landscape
T3. Organic texture or organic modifiers
T4. N 2.5/ 0 color
T5. Redox features in topsoil
T6. Hydraulic indicators

Subsoil Indicator(s) of Saturation:

S1. Depleted matrix (value >/=4 and chroma </=2)
S2. Distinct gray or red redox features (any Matrix Hue)
S3. Matrix Hue of 5Y with a chroma </= 3
S4. Matrix Hue of 7.5 YR or redder with faint redox concentrations or redox depletions



Shape:

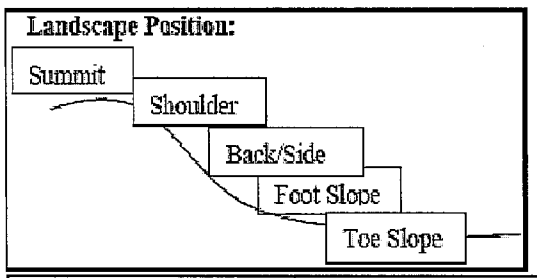
Granular	The peds are approximately spherical or polyhedral and are commonly found in topsoil. These are the small, rounded peds that hang onto roots when soil is turned over.
Platy	The peds are flat and plate like. They are oriented horizontally and are usually overlapping. Platy structure is commonly found in forested areas just below the leaf litter or shallow topsoil.
Blocky	The peds are block-like or polyhedral, and are bounded by flat or slightly rounded surface that are castings of the faces of surrounding peds. Blocky structure is commonly found in the lower topsoil and subsoil.
Prismatic	Flat or slightly rounded vertical faces bound the individual peds. Peds are distinctly longer vertically, and faces are typically casts or molds of adjoining peds. Prismatic structure is commonly found in the lower subsoil.
Single Grain	The structure found in a sandy soil. The individual particles are not held together.

Grade:

Loose	No peds, sandy soil
Weak	Poorly formed, indistinct peds, barely observable in place
Moderate	Well formed, distinct peds, moderately durable and evident, but not distinct in undisturbed soil
Strong	Durable peds that are quite evident in un-displaced soil, adhere weakly to one another, withstand displacement, and become separated when soil is disturbed
Massive	No observable aggregates, or no orderly arrangement of natural lines of weakness

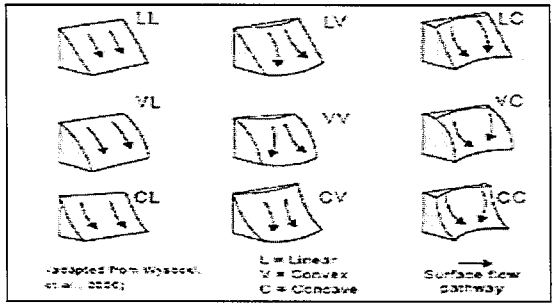
Consistence:

Loose	Intact specimen not available
Friable	Slight force between fingers
Firm	Moderate force between fingers
Extremely Firm	Moderate force between hands or slight foot pressure
Rigid	Foot pressure



Slope Shape:

Slope shape is described in two directions:
up and down slope (perpendicular to the contour),
and across slope (along the horizontal contour);
e.g. Linear, Convex or LV'.



Cubed B LLC
SEPTIC SYSTEM DESIGN & INSPECTION

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David Calderwood
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12 Jul 2024

Scale: 1" = 32'

N