



010111001



COUNTY OF BECKER

Planning and Zoning

915 Lake Ave, Detroit Lakes, MN 56501
Phone: 218-846-7314 ~ Fax: 218-846-7266

July 31, 2020

Craig W & Wanda R Mozley
PO Box 144
Hitterdal, MN 56552

COPY

Re Property: 01.0111.001

To Whom it May Concern,

A compliance inspection form was submitted into our office 07/30/20 stating the existing septic system servicing the property is noncompliant per inspection conducted 07/13/20.

The existing septic system is to be upgraded, repaired, or replaced per State and County regulations. You have 10 months from the date of non-compliance to update the system.

Enclosed is a list of ISTS contractors. An application for an upgraded system must be submitted into the office, with the installation completed within 10 months.

Any questions, please contact our office at 218-846-7314. Thank you.

Rachel Bartee

Rachel Bartee

Zoning Technician



Minnesota Pollution Control Agency

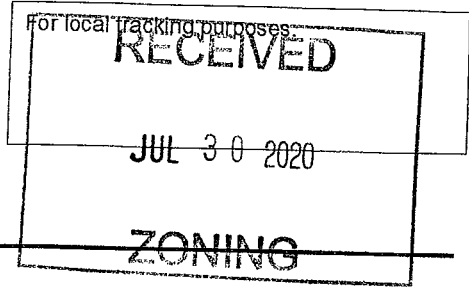
520 Lafayette Road North
St. Paul, MN 55155-4194

Compliance Inspection Form
Existing Subsurface Sewage Treatment Systems (SSTS)

Doc Type: Compliance and Enforcement

Inspection results based on Minnesota Pollution Control Agency (MPCA) requirements and attached forms - additional local requirements may also apply.

Submit completed form to Local Unit of Government (LUG) and system owner within 15 days



System Status

System status on date (mm/dd/yyyy): 7/13/2020

[] Compliant - Certificate of Compliance
(Valid for 3 years from report date, unless shorter time frame outlined in Local Ordinance.)

[X] 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
[X] 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: 010111001

Property address: 10206 Cty Hwy 14, Hitterdal, MN 56552

Reason for inspection: Sale

Property owner: Wanda Mozley

Owner's phone: 701-361-1379

Owner's representative:

Representative phone:

Local regulatory authority: Becker County

Regulatory authority phone: 218-846-7314

Brief system description: 1500/2 comp tank, gravity flow to gravelless pipe drainfield. 750 sq.ft.

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: Phil Stoll

Certification number: 7526

Business name: Stoll Inspections

License number: 2982

Inspector signature: Phil Stoll

Phone number: 218-839-1849

Necessary or Locally Required Attachments

- [X] Soil boring logs [] System/As-built drawing [X] Forms per local ordinance
[] Other information (list):

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

Compliance criteria:

System discharges sewage to the ground surface.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
System discharges sewage to drain tile or surface waters.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
System causes 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:

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. If yes, which sewage tank(s) leaks:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

Comments/Explanation:

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 be 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: 9/3/1996 Unknown
(mm/dd/yyyy)

Shoreland/Wellhead protection/Food beverage lodging? Yes No

Compliance criteria:

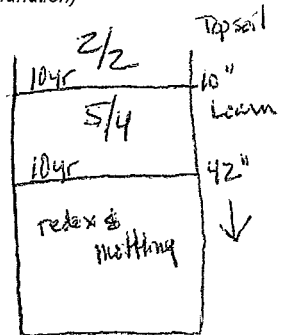
For systems built prior to April 1, 1996, and not located in Shoreland or Wellhead Protection Area or not serving a food, beverage or lodging establishment:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Drainfield has at least a two-foot vertical separation distance from periodically saturated 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:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Drainfield meets the designed vertical separation distance from periodically saturated soil or bedrock.	

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:



Indicate depths or elevations

A. Bottom of distribution media	30"
B. Periodically saturated soil/bedrock	42"
C. System separation	12"
D. Required compliance separation*	36"

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

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

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: _____	
Have the Operating Permit requirements been met?	<input type="checkbox"/> Yes <input type="checkbox"/> No
b. Is the required nitrogen BMP in place and properly functioning?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Any "no" answer indicates Noncompliance.

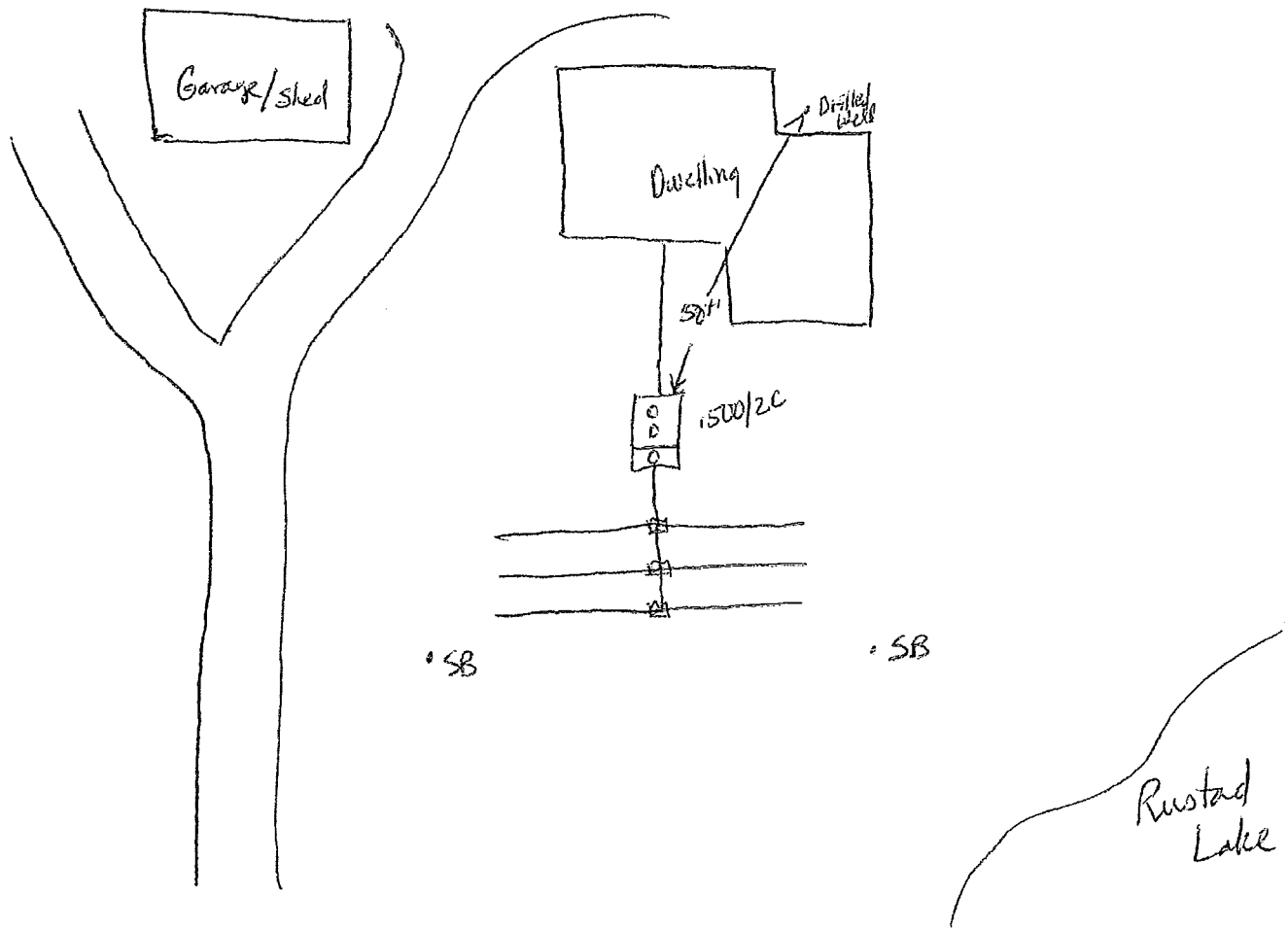
Upgrade Requirements (Minn. Stat. § 115.55) An imminent threat to public health and safety (ITPHS) must be upgraded, replaced, or its use discontinued within ten months of receipt of this notice or within a shorter period if required by local ordinance. If the system is failing to protect ground water, 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.

Parcel Number: 010111001

Date & Initial: 7/13/20 PJS

System Drawing

The system drawing which includes and identifies a graphic scale in feet or indicates all setback distances, all septic/holding/lift tanks, drainfields, wells within 100 feet of system (indicate depth of wells), dwelling and non-dwelling structures, lot lines, road right-of-ways, easements, OHWLs, wetlands, and topographic features (i.e. bluffs).



Additional Comments: Septic is Non-Compliant

BECKER COUNTY PLANNING & ZONING se/96

829 LAKE AVENUE, PO BOX 787
 DETROIT LAKES, MN 56502-0787
 PHONE (218) 846-7314 - FAX (218) 846-7266

INSTALLATION PERMIT FOR
 INDIVIDUAL SEWAGE TREATMENT

FIRE NO. _____

PERMIT/RECEIPT NO. 10339

TAX PARCEL NUMBER 01.0111.001

LEGAL DESCRIPTION
Beq 1684.39' SE of NW cor Th S 89.79'

LAKE/STREAM NAME	LK/STR CLASS	SECTION	TWP	RANGE	TOWNSHIP NAME
<u>Rustad</u>	<u>NE</u>	<u>31</u>	<u>141</u>	<u>43</u>	<u>Atlanta</u>

PROPERTY OWNER	ADDRESS/ CITY/ STATE	PHONE NO.
<u>Jerry Erickson</u>	<u>P.O. Box 95 Nettetal MN</u>	

INSTALLER	LICENSE NO.	PHONE NO.
<u>Grant Ohm</u>	<u>932</u>	

SEWAGE TREATMENT SYSTEM DATA

WORK CATEGORY	SIZE OF TANK	SIZE OF LIFT STATION
<input checked="" type="checkbox"/> NEW SYSTEM	<u>1500²/L</u> GALLONS	<u>NA</u> GALLONS
<input type="checkbox"/> REPAIR	SIZE OF DRAINFIELD	SIZE OF PUMP
	<u>750</u> FT ²	<u>NA</u>
	SYSTEM LENGTH	DEPTH TO RESTRICTING LAYER
	<u>250</u> FT	<u>5'</u>
	NUMBER OF TRENCHES	MAXIMUM DEPTH OF SYSTEM
	<u>3</u>	<u>2'</u>
TYPE OF SYSTEM	ESTIMATED FLOW	PERC RATE
<input checked="" type="checkbox"/> SEPTIC TANK/DRAINFIELD	<u>450</u> GPD	<u>26</u>
<input type="checkbox"/> DRAINFIELD ONLY	TYPE OF DRAINFIELD	SSF
<input type="checkbox"/> HOLDING TANK	<input checked="" type="checkbox"/> STANDARD (gravelless)	<u>1.67</u>
<input type="checkbox"/> ALTERNATE (specify)	<input type="checkbox"/> STANDARD (rock trench)	SIZE OF GRAVELLESS PIPE
	<input type="checkbox"/> STANDARD (bed)	<u>12inch</u>
<input type="checkbox"/> LIFT STATION	<input type="checkbox"/> MOUND (pressure distb)	DEPTH OF ROCK

I hereby certify with my signature that all the data contained herein as well as all supporting data are true and correct to the best of my knowledge. I also understand that this permit is valid for a period of six (6) months.

Signature on site evaluator 9/3/96
 Signature Date

Any changes to the permit must first be approved by Becker County Planning & Zoning. No system shall be covered up without inspection by Becker County Planning & Zoning.

R01.011.001

site plan attached

For Office Use Only

Application Fee 45⁰⁰ State Surcharge 50 Total \$45⁵⁰

Application is hereby denied
 Application is hereby granted to Jr. Erickson to install an individual septic system according to the specifications of the site evaluation and design submitted to the Becker County Environmental Services Office. By Order of:

Hebi Moltzan
Signature of Becker County Qualified Employee

9/3/96
Date

This permit expires on 3/3/97

BECKER COUNTY PLANNING & ZONING

829 Lake Avenue, P O Box 787
 Detroit Lakes, MN 56502-0787
 Phone (218) 846-7314, Fax (218) 846-7266

01-0111,001

se/96

Onsite Septic System Site Evaluation/Design

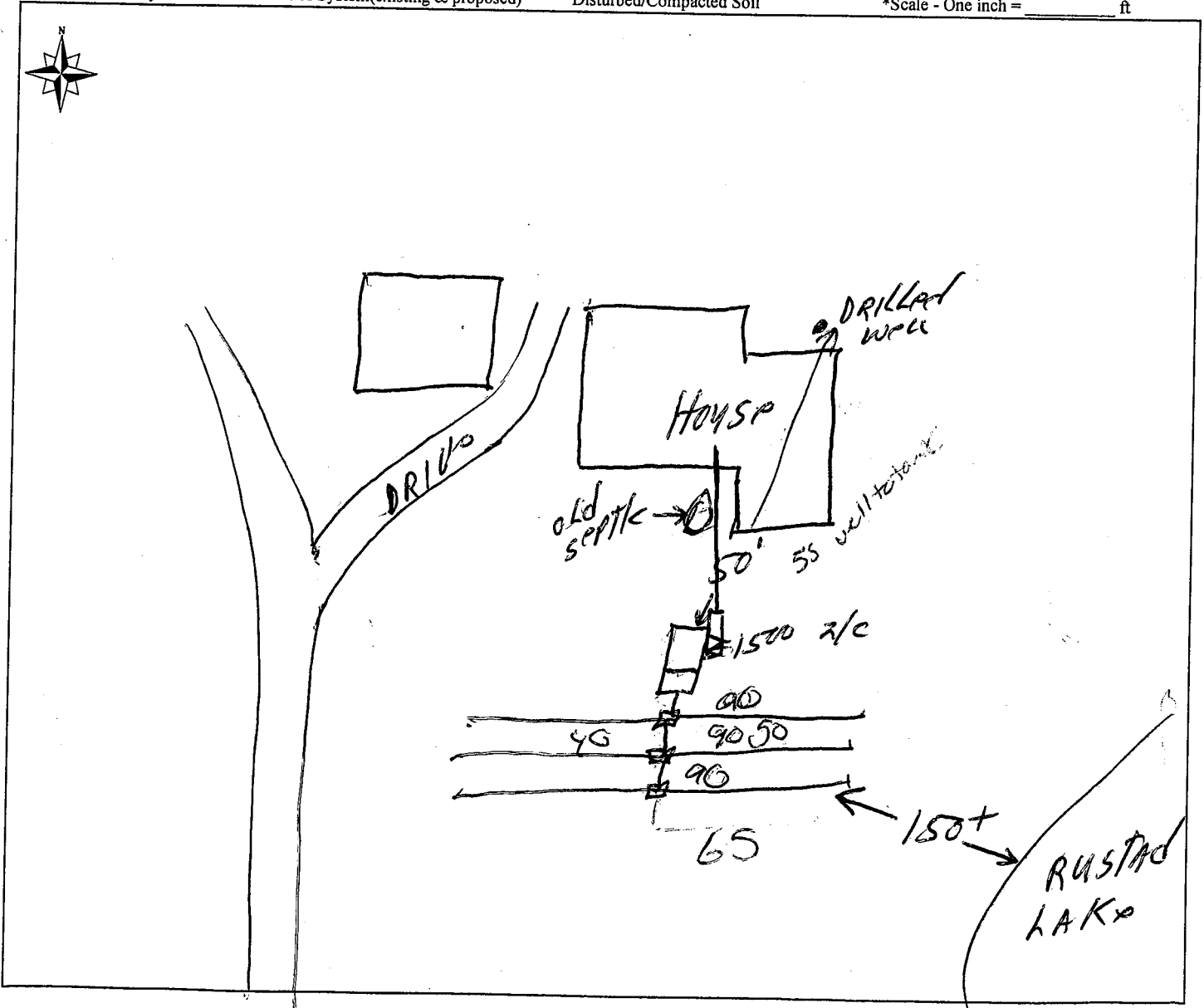
Fire Number 1032
 Tax Parcel Number 01.0111.001

Legal Description: <u>2 ACRES PLOT 6 Beg 1684.39' S E of NW cor TH S 89.79'</u>						
Lake/Stream Name	Lake/Stream Class	Section	TWP	Range	Township Name	
<u>RUSTAD</u>	<u>NE</u>	<u>31</u>	<u>141</u>	<u>43</u>	<u>ATLANTA</u>	
Property Owner	Address		City, State, Zip Code		Phone Number	
<u>TERRY ERICKSON</u>	<u>P.O. Box 95</u>		<u>HITLERDALE, MN. 56552</u>		<u>962-3389</u>	
ISTS Designer I / Designer II	License Number	Address		Phone Number		
<u>GRANT Ohm</u>	<u>932</u>	<u>Box 293</u> <u>Audubon, MN</u>		<u>439-6428</u>		

Site Plan

The site plan must be drawn to dimension or to scale:

- *All Wells within 100 feet of the System
- *Existing & Proposed Buildings
- *Distance from OHW
- *Soil Boring & Perc Test Locations
- *Distance from all Wells within 100 ft of System
- *Easements
- *Distance from Property Lines
- *Dimensions of Lot
- *Distance from Water Lines within 50 ft of System (existing & proposed)
- *Location of any Unsuitable Disturbed/Compacted Soil
- *Tank Access Route
- *Scale - One inch = _____ ft



TEST HOLE #1

TEST HOLE #2

DEPTH IN INCHES	SOIL TEXTURE	MUNSELL COLOR	STRUCTURE	DEPTH IN INCHES	SOIL TEXTURE	MUNSELL COLOR	STRUCTURE
0-16	SANDY LOAM	10YR 2/1 BLACK	BLOCKY PLATY PRISMATIC NONE	0-12	SANDY LOAM	10YR 2/1 BLACK	BLOCKY PLATY PRISMATIC NONE
16-20	SANDY LOAM	10YR 3/3 DARK BRN	BLOCKY PLATY PRISMATIC NONE	12-24	LOAM	10YR 6/4 LT YR BRN	BLOCKY PLATY PRISMATIC NONE
20-36	GRAVEL & LOAM	10YR 6/4 LT YR BRN	BLOCKY PLATY PRISMATIC NONE	24-60	LOAM	10YR 7/2 LT GRAY	BLOCKY PLATY PRISMATIC NONE
36-60	LOAM	10YR 7/2 LT GRAY	BLOCKY PLATY PRISMATIC NONE				
Depth to standing water				Depth to standing water			
Depth to mottling				Depth to mottling			

Describe the surface features (slope, runoff, weather conditions, vegetation type, evidence of compaction, etc.)
5% Slope - LAWN AREA DRY

SYSTEM IS NEW () REPAIR SYSTEM DESIGN GRAVITY FLOW () PRESSURE DISTRIBUTION

WATER USES: NUMBER OF BEDROOMS 3 DEPTH OF SYSTEM 24"
 NUMBER OF BATHROOMS 2
 WASHING MACHINE TOTAL SQ. FT OF STRUCTURE _____ SYSTEM DESIGN FLOW 450 GPD
 DISHWASHER TOTAL SQ. FT OF STRUCTURE _____ SOIL SIZING FACTOR 1.67
 WATER SOFTENER TANK SIZE 1500 n/c PUMP SIZE _____
 GARBAGE DISPOSAL LIFT STATION SIZE _____

TYPE OF RESIDENCE: LIFT STATION SIZE _____
 TYPE I () TYPE II SOIL TREATMENT _____
 TYPE III () TYPE IV AREA SIZE 750 SQ FT DOSE VOLUME _____

WELL INFORMATION-Property's Well DEPTH OF WELL 150' TYPE OF WELL DRILLED 4"
 Neighboring wells (within 100 ft of system) Depth of Wells NONE Type of Wells NONE

Name of Designer I _____ Date of Site Evaluation 8-29-96
 Designer II Grant Ohm Phone 439-6428
 MPCA Number 932

I certify that the site evaluation has been completed in accordance with all provisions of ISTS Minnesota Rules Chapter 7080.

Signature of Evaluator Grant Ohm Date 9-1-96

For Office Use Only
 Date Site Evaluation / Design received 9/3/96 Received by Hebi Mottz
 Date Site Evaluation approved 9/3/96 Approved by Hebi Mottz

- A. Estimated 450 FLOW
measured _____ x 1.5 = _____ gpd
- B. 1000 SEPTIC TANK VOLUME
_____ gallons

Estimated Sewage Flows in Gallons per day (gpd)				
Number of Bedrooms	Type I	Type II	Type III	Type IV
2	300	225	180	
3	450	300	218	60% of the values in Type I, II or III columns
4	600	375	256	
5	750	450	294	
6	900	525	332	
7	1050	600	370	
8	1200	675	408	

- C. SOILS (Site evaluation data)
Depth to restricting layer = _____ feet
- D. Maximum depth of system C - 3 ft = _____ feet
- E. Texture loam Percolation rate 26 MPI
- F. SSF 167 sq ft/gpd
- G. Slope 5 %

Septic Tank Capacities (in gallons)		
Number of Bedrooms	Minimum Liquid Capacity	Liquid capacity with garbage disposal
2 or less	750	1125
3 or 4	1000	1500
5 or 6	1500	2250
7, 8 or 9	2000	3000

TRENCH BOTTOM AREA

H. For trenches with 6 inches of rock below the pipe:
 $A \times F = \text{_____} \times \text{_____} = \text{_____}$ sq ft of bottom area

I. For trenches with 12 inches of rock below the pipe:
 $A \times F \times 0.8 = \text{_____} \times \text{_____} \times 0.8 = \text{_____}$ sq ft of bottom area

J. For trenches with 18 inches of rock below the pipe:
 $A \times F \times 0.66 = \text{_____} \times \text{_____} \times 0.66 = \text{_____}$ sq ft of bottom area

K. For trenches with 24 inches of rock below the pipe:
 $A \times F \times 0.6 = \text{_____} \times \text{_____} \times 0.6 = \text{_____}$ sq ft of bottom area

BED BOTTOM AREA

L. For seepage beds with 6 or 12 inches of rock below the pipe;
 $1.5 \times A \times F = 1.5 \times \text{_____} \times \text{_____} = \text{_____}$ sq ft of bottom area

Soil Characteristics and Required Areas for Sewage Treatment		
Percolation Rate in Minutes per Inch (MPI)	Soil Texture	Square feet per gallon per day
Faster than 0.1 *	Coarse Sand	-----
0.1 to 5	Sand	0.83
0.1 to 5	Fine Sand **	1.67
6 to 15	Sandy Loam	1.27
16 to 30	Loam	1.67
31 to 45	Silt Loam	2.00
46 to 60	Clay Loam	2.20
Slower than 60***	Clay	-----

* Soil too coarse for sewage treatment. Use systems for rapidly permeable soils.
** Soil having 50% or more of fine sand plus very fine sand.
*** Soil with too high a percentage of clay for installation of an inground standard system.

- M. **ROCK VOLUME IN CU FT**
Rock depth below distribution pipe plus 0.5 foot times bottom area:
 $M = \text{Rock depth} + 6 \text{ inches} \times \text{Area (H,I,J,L,K)}$
 $(\text{_____} + 0.5 \text{ ft}) \times \text{_____} = \text{_____}$ cu ft
- N. **ROCK VOLUME IN CU YDS**
Volume in cu ft divided by 27
 $M \div 27 = \text{cu yds}$ _____ + 27 = _____ cu yds
- O. **ROCK WEIGHT**
Cubic yards times 1.4 = tons
 $N \times 1.4 = \text{tons}$ _____ x 1.4 = _____ tons

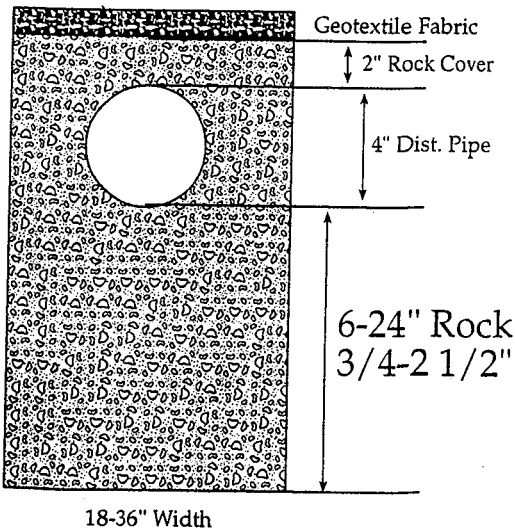
6 inches= 0% Reduction*
12 inches= 20% Reduction
18 inches= 34% Reduction
24 inches= 40% Reduction
* sizing for gravelless trench

SYSTEM LENGTH

P. Select trench width = _____ ft

Q. Divide bottom area by trench width: (H, I, J, or K) + P = lineal feet
_____ + _____ = _____ lineal feet

Q1. Gravelless Design
 $A \times F \div (3 \text{ for } 10" \text{ pipe, } 2 \text{ for } 8" \text{ pipe, width of the Chamber})$
 $450 \times 1.67 \div 3 = 250$ feet



- R. **LAWN AREA**
Select trench spacing, center to center = _____ feet
- S. Multiply trench spacing by lineal feet R x Q = sq ft of lawn area
~~450 x 250~~ = _____ sq ft

If the site evaluation determines a mound system, please attach the mound design worksheets.

- PERCOLATION TEST SHEET -

Test hole location East Hole # 2 Date test hole was prepared: _____ inches
 Diameter of hole: 7 inches
 Depth of hole bottom: 24 inches
 Soil Data from test hole:
 depth, inches: 0-12 soil texture: SAND
12-24 GRAVELLY SAND soil color: BLACK
24-34 YEL. GR. YEL. GR.

Method of scratching sidewall: _____ Depth of pea size gravel in bottom of hole: 7 inches
 Date and hour of initial water filling: _____ Depth of initial water filling: _____ above hole bottom
 Method used to maintain 12" of water depth in hole for 4 hours: _____
 Percolation test started at _____ (am/pm).
 Percolation test conducted by: _____ inches
 Maximum water depth above hole bottom during test: _____ inches

TIME	INTERVAL (MINUTES)	WATER DEPTH	WATER DROP (fraction)	WATER DROP (decimal)	PERC RATE CALCULATION	CONVERSIONS
	START	<u>6 7/8</u>	<u>1/8</u>	<u>1.125</u>	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	1/16 = .06
	REFILL	<u>6 3/4</u>	<u>1/16</u>	<u>1.06</u>	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	1/8 = .13
	REFILL	<u>6 5/8</u>	<u>1</u>	<u>1</u>	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	3/16 = .19
	REFILL	<u>6 5/4</u>	<u>1</u>	<u>1</u>	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	1/4 = .25
	REFILL	<u>6 3/4</u>	<u>1</u>	<u>1</u>	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	5/16 = .31
	REFILL	<u>6 5/8</u>	<u>19/16</u>	<u>1.19</u>	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	3/8 = .38
	REFILL	<u>6 5/4</u>	<u>19/16</u>	<u>1.19</u>	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	7/16 = .44
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	1/2 = .5
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	9/16 = .56
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	5/8 = .63
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	11/16 = .69
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	3/4 = .75
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	13/16 = .81
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	7/8 = .88
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	15/16 = .94

Ten Percent Calculation *

A, B, C
 Largest # of ABC - Smallest # of ABC = _____
 Smallest # of ABC x 0.10 = _____

C, D, E
 Largest # of CDE - Smallest # of CDE = _____
 Smallest # of CDE x 0.10 = _____

E, F, G
 Largest # of EFG - Smallest # of EFG = _____
 Smallest # of EFG x 0.10 = _____

B, C, D
 Largest # of BCD - Smallest # of BCD = _____
 Smallest # of BCD x 0.10 = _____

D, E, F
 Largest # of DEF - Smallest # of DEF = _____
 Smallest # of DEF x 0.10 = _____

F, G, H
 Largest # of FGH - Smallest # of FGH = _____
 Smallest # of FGH x 0.10 = _____

* If the top number in each set of boxes is larger than the bottom number then take another reading. If the top number is equal or smaller than bottom number, average the three numbers for the per rate.

26 MPI
21 MPI
21 MPI

- PERCOLATION TEST SHEET -

Test hole location West Hole # 1 Date test hole was prepared: 8-29 inches
 Diameter of hole: 7 inches
 Depth of hole bottom: 28 inches
 Soil Data from test hole:
 depth, inches: 0-16 soil texture: SAND
16-20 GRAVELLY SAND soil color: BLACK
20-28 YEL. GR. YEL. GR.

Method of scratching sidewall: _____ Depth of pea size gravel in bottom of hole: 9 inches
 Date and hour of initial water filling: _____ Depth of initial water filling: _____ above hole bottom
 Method used to maintain 12" of water depth in hole for 4 hours: _____
 Percolation test started at _____ (am/pm).
 Percolation test conducted by: GRANT inches
 Maximum water depth above hole bottom during test: _____ inches

TIME	INTERVAL (MINUTES)	WATER DEPTH	WATER DROP (fraction)	WATER DROP (decimal)	PERC RATE CALCULATION	CONVERSIONS
	START	<u>6 5/8</u>	<u>1</u>	<u>1</u>	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	1/16 = .06
	REFILL	<u>6 1/4</u>	<u>7/8</u>	<u>.88</u>	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	1/8 = .13
	REFILL	<u>6 5/8</u>	<u>3/4</u>	<u>.75</u>	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	3/16 = .19
	REFILL	<u>6 5/4</u>	<u>5/8</u>	<u>.63</u>	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	1/4 = .25
	REFILL	<u>6 5/8</u>	<u>5/8</u>	<u>.63</u>	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	5/16 = .31
	REFILL	<u>6 5/4</u>	<u>5/8</u>	<u>.63</u>	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	3/8 = .38
	REFILL	<u>6 5/8</u>	<u>5/8</u>	<u>.63</u>	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	7/16 = .44
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	1/2 = .5
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	9/16 = .56
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	5/8 = .63
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	11/16 = .69
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	3/4 = .75
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	13/16 = .81
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	7/8 = .88
	REFILL	---	---	---	$\frac{20}{\text{TIME}} \cdot \frac{\text{DROP}}{\text{PERC}}$	15/16 = .94

Ten Percent Calculation *

A, B, C
 Largest # of ABC - Smallest # of ABC = _____
 Smallest # of ABC x 0.10 = _____

C, D, E
 Largest # of CDE - Smallest # of CDE = _____
 Smallest # of CDE x 0.10 = _____

E, F, G
 Largest # of EFG - Smallest # of EFG = _____
 Smallest # of EFG x 0.10 = _____

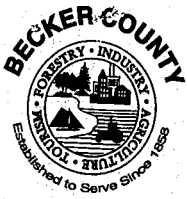
B, C, D
 Largest # of BCD - Smallest # of BCD = _____
 Smallest # of BCD x 0.10 = _____

D, E, F
 Largest # of DEF - Smallest # of DEF = _____
 Smallest # of DEF x 0.10 = _____

F, G, H
 Largest # of FGH - Smallest # of FGH = _____
 Smallest # of FGH x 0.10 = _____

* If the top number in each set of boxes is larger than the bottom number then take another reading. If the top number is equal or smaller than bottom number, average the three numbers for the per rate.

31.7 MPI
21.7 + 21 ÷ 2 = 26 MPI
21 MPI



APPLICATION FOR SEWAGE SYSTEM CERTIFICATE OF COMPLIANCE

With The Becker County Zoning Ordinance

94/se

Application Number 10339
Tax Parcel Number 01.0111.001
Fire Number of Project Location 1032

A. GENERAL INFORMATION

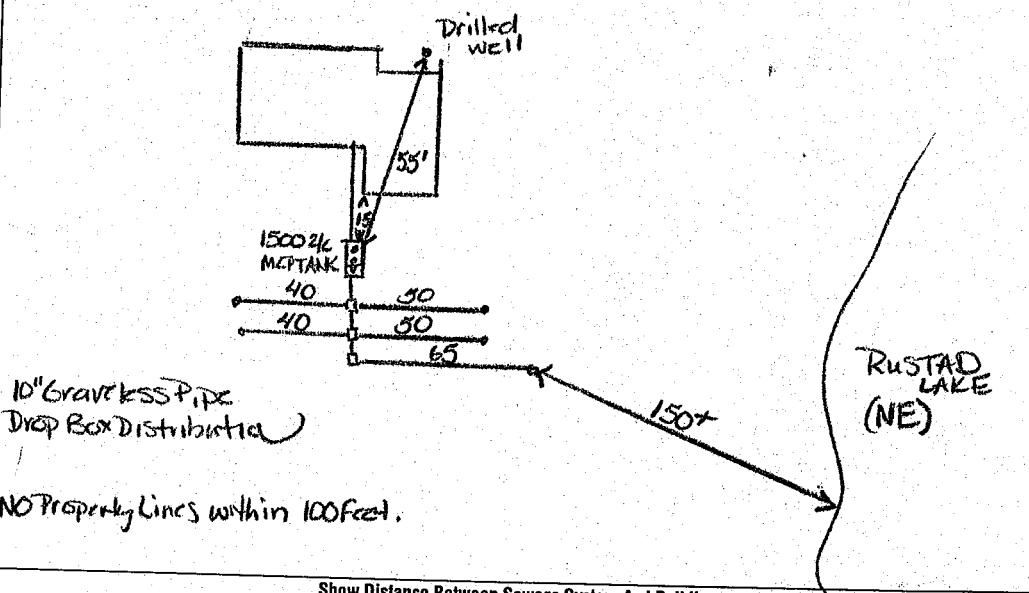
1. Applicant's Name (Last, First, M.I.) Erickson, Jerry		2. Authorized Agent (if applicable)	
3. Mailing Address (Street, RFD, Box Number, City, State, Zip Code) P.O. BOX 95 Hitterdahl, mn 56552			
4. Day Phone 962-3389	5. Evening Phone	6. Section 31	7. Township Atlanta

B. PROPERTY DESCRIPTION

1. Lot(s), Block, Subdivision Name
PT 701 6 BEG 1684.39' SE OF NW COR TH S 89.79'E 209.63' 2.16AC

- SEWAGE SYSTEM DATA**
- Anticipated Use
- a. Single Family
 - b. Multiple Family
 - c. Commercial
 - d. Other (specify)
- Type of Installation
- a. Septic Tank Only
 - b. Drainfield Only
 - c. Septic Tank & Drainfield
 - d. Holding Tank
 - e. Septic Tank/Drainfield Lift Station
- Type of Drainfield
- a. Standard System
 - b. Mound (pressure distribution)
- Well Data
- a. Depth **50'**
 - b. Diameter _____
- Type of Well
- a. Drilled
 - b. Sand Point

**1 Inch Equals _____
DESIGN**



Show Distance Between Sewage System And Buildings,
Property Lines, Lake, Road And All Wells Within 125 Feet.

Distances to Well:	= $\frac{\text{Tank } 50}{\text{Drainfield } 65}$	Distance to Pressure Line:	= $\frac{\text{Tank } +10}{\text{Drainfield } +10}$
Distance to Building:	= $\frac{15}{25}$	Tank Capacity (gal. & Area of Drainfield (ft ²)):	= $\frac{1500 \text{ GAL} + 750}{\text{Area}}$
Distance to Property Line:	= $\frac{+150}{+150}$	Distance to Ordinary High Water Level:	= $\frac{+150}{150}$
Drainfield separation from Highest Known Ground Water Level, Impervious Lens or Soil Mottling:			= $\frac{+4}{\text{Level}}$

I hereby certify with my signature that all data on my application forms, plans and specifications are true and correct:

Signature of Applicant _____ Date _____

TO BE COMPLETED BY PLANNING AND ZONING

CERTIFICATE IS HEREBY DENIED: (See back For Reasons)
 CERTIFICATE IS HEREBY GRANTED: Based upon the application, addendum from, plans, specifications and all other supporting data. With proper maintenance this system can be expected to function satisfactory, however this is not a guarantee.

BECKER COUNTY PLANNING AND ZONING
Patricia Burns
 Signature
 Chief Inspector
 Title
 10-9-96
 Date