

FIELD EVALUATION SHEET

PRELIMINARY EVALUATION DATE _____ FIELD EVALUATION DATE _____
PROPERTY OWNER: Jim RUED PHONE 386-214-2514
ADDRESS: 29886 395TH PL CITY, STATE, ZIP: AITKIN MN 56431
LEGAL DESCRIPTION: PT OF (NW/NE) LOT 2 LYING E. OF TWP RD
PIN# _____ SEC 30 T 46 R 26 TWP NAME NORLAND
FIRE# _____ LAKE/RIVER NONE LAKE CLASS _____ OHWL _____ FT.

DESCRIPTION OF SOIL TREATMENT AREAS

	AREA #1	AREA #2	REFERENCE BM ELEV. <u>100</u> FT.
DISTURBED AREAS	YES _____ NO <input checked="" type="checkbox"/>	YES _____ NO <input checked="" type="checkbox"/>	REFERENCE BM DESCRIPTION _____
COMPACTED AREAS	YES _____ NO <input checked="" type="checkbox"/>	YES _____ NO <input checked="" type="checkbox"/>	_____
FLOODING	YES _____ NO <input checked="" type="checkbox"/>	YES _____ NO <input checked="" type="checkbox"/>	_____
RUN ON POTENTIAL	YES _____ NO <input checked="" type="checkbox"/>	YES _____ NO <input checked="" type="checkbox"/>	_____
SLOPE %	<u>6-10</u>	_____	_____
DIRECTION OF SLOPE	<u>SOUTH</u>	_____	_____
LANDSCAPE POSITION	<u>SIDE HILL</u>	_____	_____
VEGETATION TYPES	<u>WOODED</u>	_____	_____

DEPTH TO STANDING WATER OR MOTTLED SOIL: BORING# 1 6', 1A 6', 2 5', 2A _____

BOTTOM ELEVATION--FIRST TRENCH OR BOTTOM OF ROCK BED: #1 _____ FT., #2 _____ FT.

SOIL SIZING FACTOR: SITE #1 1.27, SITE #2 _____

CONSTRUCTION RELATED ISSUES: _____

LIC# 127 SITE EVALUATOR SIGNATURE: Larry Liljenquist

SITE EVALUATOR NAME: LARRY LILJENQUIST TELEPHONE# 218 820 8886

LUG REVIEW [Signature] 6/16/16 DATE _____

Comments: _____

SOIL BORING LOGS ON REVERSE SIDE

SOILS CHARTS FOR BOTH PROPOSED AND ALTERNATE SITES

1 (PROPOSED) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR
0-5	TOPSOIL	
5-24	SAND LOOSE	10YR 6/4
24-50	SAND LOOSE ROCKY	10YR 4/4
50-72	SAND	10YR 4/4

NO MOTTLING

2 (PROPOSED) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR
0-4	TOPSOIL	
4-36	SAND LOOSE	10YR 6/4
36-72	SAND LOOSE	10YR 4/4

NO MOTTLING

1 (ALTERNATE) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR
0-4	TOPSOIL	
4-30	SAND LOOSE	10YR 6/4
30-65	LOAM	10YR 4/3

2 (ALTERNATE) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR

ADDITIONAL SOIL BORINGS MAY BE REQUIRED

L. AVERAGE DESIGN FLOW

- A. Estimated 600 gpd (see figure A-1)
 or measured x 1.5 (safety factor) = gpd
 B. Septic tank capacity 1000 gal (see figure C-1)

A-1: Estimated Sewage Flows in Gallons per Day

number of bedrooms	Class I	Class II	Class III	Class IV
2	300	225	180	60%
3	450	300	218	of the
4	600	375	256	values
5	750	450	294	in the
6	900	525	332	Class I,
7	1050	600	370	II, or III
8	1200	675	408	columns

2. SOILS (Site evaluation data)

- C. Depth to restricting layer = 6 ft
 D. Max depth of system Item 2C - 3 ft = 6 ft - 3 ft = 3 ft
 E. Texture SAND Percolation rate 6-15 MPI
 F. Soil Sizing Factor (SSF) 1.27 sqft/gpd (see figure D-15)
 G. % Land Slope 10 %

C-1: Septic Tank Capacities (in gallons)

Number of Bedrooms	Minimum Liquid Capacity	Liquid capacity with garbage disposal	Liquid capacity with disposal & lift inside
2 or less	750	1125	1500
3 or 4	1000	1500	2000
5 or 6	1500	2250	3000
7, 8 or 9	2000	3000	4000

3. TRENCH or BED BOTTOM AREA

- H. For trenches with 6 inches of rock below the pipe:
 $A \times F = \text{ } \text{gpd} \times \text{ } \text{sqft/gpd} = \text{ } \text{sqft}$
 I. For trenches with 12 inches of rock below the pipe:
 $A \times F \times 0.8 = \text{600 gpd} \times \text{1.27 sqft/gpd} \times 0.8 = \text{610 sqft}$
 J. For trenches with 18 inches of rock below the pipe:
 $A \times F \times 0.66 = \text{ } \text{gpd} \times \text{ } \text{sqft/gpd} \times 0.66 = \text{ } \text{sqft}$
 K. For trenches with 24 inches of rock below the pipe:
 $A \times F \times 0.6 = \text{ } \text{gpd} \times \text{ } \text{sqft/gpd} \times 0.6 = \text{ } \text{sqft}$
 L. For gravity beds with 6 or 12 inches of rock below the pipe:
 $1.5 \times A \times F = 1.5 \times \text{ } \text{gpd} \times \text{ } \text{sqft/gpd} = \text{ } \text{sqft}$
 For pressure beds with 6 or 12 inches of rock below the pipe:
 $A \times F = \text{ } \text{gpd} \times \text{ } \text{sqft/gpd} = \text{762 sqft}$

D-15: Soil Characteristics and Soil Sizing Factor (SSF) (> 3" separation)

Percolation Rate (minutes per inch (mpi))	Soil Texture	Soil Sizing Factor (square feet/gallon per day (sqft/gpd))
faster than 0.1*	Coarse sand	0.83
0.1 to 5'	Medium sand	0.83
	Loamy sand	1.67
0.1 to 5**	Fine sand	1.27
6 to 15	Sandy loam	1.67
16 to 30	Loam	2.00
31 to 45	Silt loam	2.20
46 to 60	Silt	2.20
	Clay loam	4.20
	Sandy clay	4.20
over 61 to 120***	Silty clay	4.20
	Clay	4.20
	Sandy clay	4.20
slower than 120****	Silty clay	4.20

4. DISTRIBUTION (Check all that apply)

- Bed (< 6% slope) Drop boxes (any slope) Rock
 Trenches Distribution box (< 3%) Chamber
 Pressure Gravity Gravelless

*Use systems for rapidly permeable soils; pressure distribution or serial distribution with no trench > 25% of the total system.
 **Soil having 50% or more fine sand plus very fine sand.
 ***A mound must be used.
 ****An other or performance system must be used

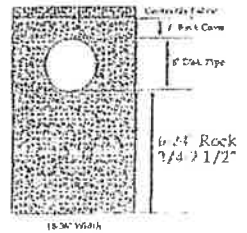
5. SYSTEM WIDTH, LENGTH and VOLUME

- M. Select trench width = 3 ft
 N. If using rock, divide bottom area by width: (H, I, J, K or L) ÷ M =
 $\text{610 sqft} \div \text{3 ft} = \text{203 lineal feet}$
 Rock depth below distribution pipe plus 0.5 foot times bottom area:
 Rock depth in feet + 0.5 feet x Area (H, I, J, K, or L)
 $(\text{1 ft} + \text{0.5 ft}) \times \text{610 sqft} = \text{915 cuft}$
 Volume in cubic yards = cuft ÷ 27
 $\text{915 cuft} \div \text{27} = \text{34 cu yds}$
 Weight of rock in tons = cubic yds x 1.4
 $\text{34 cu yds} \times \text{1.4} = \text{48 tons}$
 O. If using 10" Gravelless Pipe, Flow (A) x Gravelless SSF (see figure D-9)
 $\text{ } \text{gpd} \times \text{ } \text{lineal feet/gpd} = \text{ } \text{lineal feet}$
 P. If using Chambers, H, I, J, or K (based on height of chamber slats) ÷ width of chamber in feet (M)
 $\text{ } \text{sqft} \div \text{ } \text{ft} = \text{ } \text{lineal ft}$

D-9: Soil Characteristics and Soil Sizing Factors (SSF) for Gravelless Pipe

percolation rate (minutes/inch)	soil texture	lineal feet/gallon/day
Faster than 0.1*	Coarse Sand	---
0.1 to 5	Medium Sand	0.28
	Loamy Sand	---
0.1 to 5**	Fine Sand**	0.6
6 to 15	Sandy Loam	0.42
16 to 30	Loam	0.56
31 to 45	Silt Loam	0.67
46 to 60	Silt	0.74
	Clay Loam (CL)	---
	Sandy CL	---
	Silty CL	---
slower than 60***	Clay	---
	Sandy Clay	---
	Silty Clay	---

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



6. LAWN AREA

- Q. Select trench spacing, center to center = 6 feet
 R. Multiply trench spacing by lineal feet R x Q = sqft of lawn area
 $\text{203 ft} \times \text{6 ft} = \text{1218 sqft}$

7. Include a drawing with scale (one inch = ft). Show pertinent boundaries, right of way, easements, location of house, garage, driveway, all other improvements, existing or proposed soil treatment system, well and dimensions of all elevations, setbacks and separation distances.

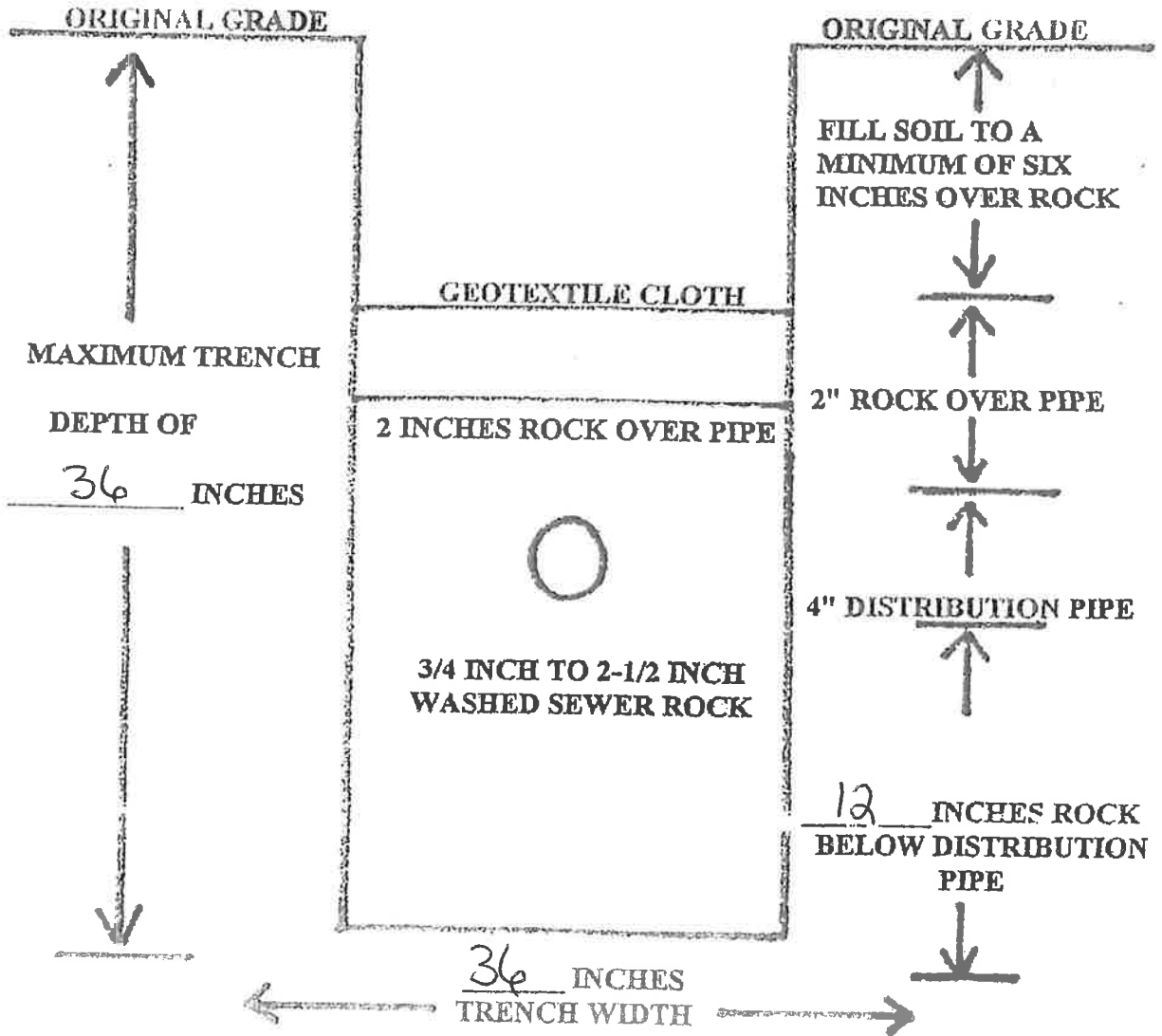
I hereby certify that I have completed this work in accordance with applicable ordinances, rules and laws.

Kerry Olynguel (signature) 127 (license #) 6-15-16 (date)

TRENCH CROSS-SECTION

FINISHED GRADE

INCHES OF BACKFILL OVER ROCK



Maintenance Log

Activity	Date Accomplished
Check frequently:	
Leaks: check for plumbing leaks	
Soil treatment area check for surfacing	
Lint filter: check, clean if needed	
Effluent screen: if owner-maintained	
Water usage rate (monitor frequency _____)	
Check annually:	
Caps: inspect, replace if needed	
Sludge & Scum/Pump	
Inlet & Outlet baffles	
Drainfield effluent leaks	
Pump, alarm, wiring	
Flush & clean laterals if cleanouts exists	
Other: _____	
Other: _____	

Notes: _____

Mitigation/corrective action plan: _____
Call a licensed septic professional with problems.

Subsurface Sewage Treatment System Management Plan

Property Owner: _____ Phone: _____ Date: _____
 Mailing Address: _____ City: _____ Zip: _____
 Site Address: _____ City: _____ Zip: _____

This management plan will identify the operation and maintenance activities necessary to ensure long-term performance of your septic system. Some of these activities must be performed by you, the homeowner. Other tasks must be performed by a licensed septic service provider.

System Designer: check every 36 months.
 Local Government: check every 36 months.
 State Requirement: check every 36 months.

My System needs to be checked every 36 months.

(State requirements are based on MN Rules Chapter 7080.2450 Subp. 2 & 3)

Homeowner Management Tasks

- Leaks – Check (look, listen) for leaks in toilets and dripping faucets. Repair leaks promptly.
- Surfacing sewage – Regularly check for wet or spongy soil around your soil treatment area.
- Effluent filter – Inspect and clean twice a year or more.
- Alarms – Alarm signals when there is a problem. Contact a service provider any time an alarm signals.
- Event counter or water meter – Record your water use.
 -recommend meter readings be conducted (circle one): DAILY · WEEKLY · MONTHLY

Professional Management Tasks

- Check to make sure tank is not leaking
- Check and clean the in-tank effluent filter
- Check the sludge/scum layer levels in all septic tanks
- Recommend if tank should be pumped
- Check inlet and outlet baffles
- Check the drainfield effluent levels in the rock layer
- Check the pump and alarm system functions
- Check wiring for corrosion and function
- Check dissolved oxygen and effluent temperature in tank
- Provide homeowner with list of results and any action to be taken
- Flush and clean laterals if clean outs exist

"I understand it is my responsibility to properly operate and maintain the sewage treatment system on this property, utilizing the Management Plan. If requirements in the Management Plan are not met, I will promptly notify the permitting authority and take necessary corrective actions. If I have a new system, I agree to adequately protect the reserve area for future use as a soil treatment system."

Property Owner Signature: _____ Date: _____

Designer Signature: Jerry Lyng _____ Date: _____

See Reverse Side for Management Log

1" = 50'

TIM RUED PROJECT

