Lincoln-Lancaster County Health Department
Environmental Public Health Division
3140 N Street • Lincoln NE 68510-1514
Phone: 402-441-8643

A

Permit Number
HS001504

Onsite Wastewater Treatment System Permit Application

Include Form B and C. Submit correct fee with this Application

☑ Septic System ☐ Lagoon ☐ Other (Refer to Form C)

PLEASE PRINT OR TYPE Repair

A. Onsite System Location

Address* 5400 West A St (no rural route) City Lincoln, NE Zip 68

Legal Description _____

1/4 1/4 Section Township Range Subdivison Addition Block Lot

PID _____ *Approx. Address (If to be determined) _____

B. Owner

Name Jack & Emily McDonald Signature _____

Address 5400 West A St City/State/Zip Lincoln NE

Home Phone _____ Work Phone _____

C. Certified Installer

Name: Harper Well Signature _____

Address P.O. Box 15 City/State/Zip Adams NE 68301

Work Phone 402-432-2204

D. Engineer

☐ **Check and complete if engineer designed system** P.E. License Number: _____

Designer Name _____ Firm _____ Work Phone _____

E. This system will serve a

☑ Residential Dwelling Number of Bedrooms 3 Whirlpool Bathtub? ☐ Yes ☑ No Total Acres _____

Garbage Grinder? ☐ Yes ☑ No

☐ Commercial Establishment/Other Facility Specify _____ Design flow in gallons per day _____

Type of Wastewater ☑ Domestic ☐ Non-Domestic

DO NOT WRITE BELOW THIS LINE

Approval Process

1. Health Department
Site visits _____ Date rec'd _____ ACTION ☐ Approved ☐ Disapproved
_____ Date frwd _____ Signature _____
Comments _____

2. Supt. Bldg. Insp. or Village Clerk
Comments _____ Date rec'd _____ ACTION ☐ Approved ☐ Disapproved
_____ Date frwd _____ Signature _____

3. City or County Engineer
Comments _____ Date rec'd _____ ACTION ☐ Approved ☐ Disapproved
_____ Date frwd _____ Signature _____

Installation Final Written Approval
By _____
Date _____

Business Office Use Only
Date Received 7-27-17 Amount Paid 215.00
Received By LC Cash/Check No. 7323

White - Health Department Yellow - Engineer Pink - Building & Safety

SCANNED

B

Lincoln-Lancaster County Health Department (LLCHD)
Environmental Public Health Division
3140 "N" Street • Lincoln, NE 68510-1514
Phone: 402-441-8022

Permit Number:

Onsite Wastewater Treatment System
Soil Evaluation Report

PLEASE PRINT OR TYPE

Onsite System Location

Address 5400 WEST A ST (no rural route) City _____ NE, Zip _____

Owner _____ Address _____

Date of Tests 7/18 to 7/19 Weather: Precipitation — Temperature 100

Percolation Test Data Table

A.	B.	C. D. E. F. Saturation/Swelling Time				G. H. I. J. K. Water Level Drop Last 30 mins of 4 hr or last 10 mins of 1 hr					L. M. N. Results		
		Start		End		Start			End				
Hole No.	Hole Depth (in)	Date (Mo/Da)	Time (Hr/Min)	Date (Mo/Da)	Time (Hr/Min)	Date (Mo/Da)	Time (Hr/Min)	Initial Water Lev (in.)	Date (Mo/Da)	Time (Hr/Min)	Elapsed Time Interval	Water Level Drop (in)	Percolation Rates (Min/in = mpi)
1	36	7/18	9 AM	7/18	3:30	7/19	8:45	6	7/19	11:30	[illegible] 30	[illegible]95	38
2	36							6			[illegible] 30	.75	40
3	36							6			[illegible] 30	.75	37
								6			30 MIN	2.19	
								6					
								6					
								6					
								6					

Person Conducting Percolation Test

Name: LEONARD HARPER

Phone: _____

Address _____

_____

Sum of Percolation Rates: _____

Average of Rates: _____

Rate Used for Calculation: _____

Soil type (NRCS Maps/Other) _____

Groundwater Depth _____

DO NOT WRITE BELOW THIS LINE

Reviewing Action

Comments (Soil type, groundwater, floodplain, etc.) _____

_____

_____

_____

_____

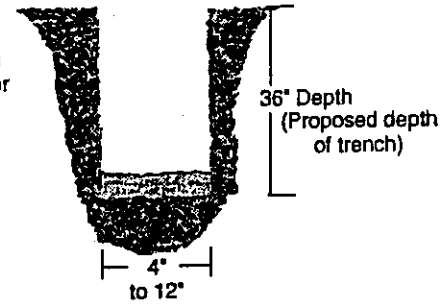
Signature of Reviewing Official _____ Date _____

READ THOROUGHLY

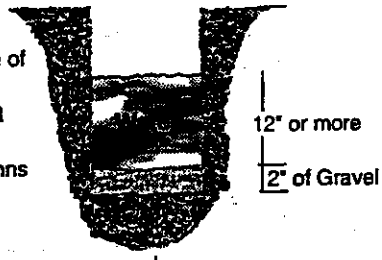
DIAGRAM OF PERCOLATION TEST PROCEDURE

Finished Grade or Natural Ground Level

I. Size, Number, and Location or Test Holes
   - A. Dig six or more holes spaced uniformly over proposed lateral field site.
   - B. Scratch smeared spots on sides of hole.
   - C. Remove loose material from hole.
   - D. Add 2" of gravel to hole.

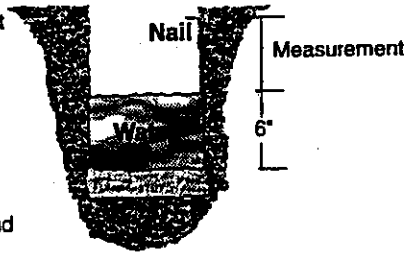


II. Saturation of Soil (Pre-soak)
   - A. Fill hole with 12" or more of water.
   - B. MAINTAIN THIS WATER LEVEL FOR 4 HOURS.
   - C. Record on Form B columns a thru f.



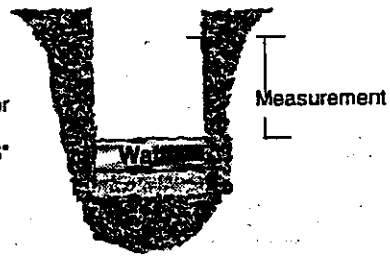
24 Hours Later

III. Percolation-rate Measurement **(refer to instructions 5a, 5b, or 5c.)**
   - A. Add 6" of water.
   - B. Measure from fixed reference point (nail) to water.
   - C. Record measurement and time on front of Form B.



½ hour later
(30 minutes)

   - D. 30 minutes later remeasure and record time.
   - E. If water will be too low for another reading 30 minutes later, adjust to 6" of water and remeasure and record time.



   - F. Continue for 3½ hours taking readings every 30 minutes.
   - G. Last 30 minute reading is used in filling out Form B. Record date, time, intervals and water level drops in column g thru m.

Instructions

1. **Number and location of tests.** Percolation tests shall be made in 6 or more separate test holes which shall be spaced uniformly over the proposed lateral field site.
2. **Type of test hole.** Dig or bore a hole 3 feet deep with a diameter of 4 to 12 inches. (To save time, labor and the volume of water required per test, a 4-inch auger hole is recommended).
3. **Preparation of the test hole.** Scratch or roughen any smeared spots on the sides of the hole with a knife blade or sharp pointed instrument to provide a natural soil interface into which water may percolate. Remove all loose material from the hole. Add 2 inches of gravel to protect the bottom from scouring when water is poured into the hole.
4. **Saturation and swelling of the soil.** Fill the hole with clear water to a depth of 12 inches or more above the gravel and maintain this water level at least 4 hours and preferably overnight. The accuracy and true value of the percolation data depends on thorough saturation and swelling of the soil.
5. **Percolation-rate measurement.** Percolation-rate measurements shall be made 24 hours after starting the saturation and swelling procedure described above. Record results on the front of this form and complete all calculations.
   a. If water remains in the test hole after the overnight swelling period, adjust the depth to approximately 6 inches over the gravel. From a fixed reference point, measure the drop in water level over a 30 minute period to the nearest 1/8 of an inch. This drop is used to calculate the percolation rate.
   b. If no water remains in the test hole after the overnight swelling period, add clear water to bring the depth to approximately 6 inches over the gravel. From a fixed point, measure the drop in water level to the nearest 1/8 of an inch at 30-minute intervals for 4 hours. Refill to the 6 inch level over the gravel as often as necessary. The drop that occurs during the final 30 minutes is used to calculate the percolation rate.
   c. In sandy soils (or other soils in which the first 6 inches of water seeps away in less than 30 minutes after the overnight swelling period) the time interval between measurements shall be 10 minutes instead of 30 minutes and the test run for 1 hour instead of 4 hours. The drop that occurs during the final 10 minutes is used to calculate the percolation rate.
6. **Record the test results and complete all calculations on the front of this form.** The average of the percolation rates calculated for all holes in the last 30 (10) minutes will normally be the rate used for calculations to size the system. ***Exceptions are the use of the greatest percolation rate when rates vary more than 20 min/in between holes or when other soil analysis indicates potential percolation problems.***

LLCHD reserves the right to require additional testing based on knowledge of soil types, percolation tests results on nearby properties, or due to concerns with procedures followed. In some situations, LLCHD staff will require and perform on-site observation of percolation tests.