Joseph Olson D.B.A.

Rusty Olson's--Soil and Percolation Testing

Joseph J. Olson--MPCA License #810 11481 Riverview Rd. NE, Hanover, MN 55341 (763) 498-8779 fax (763) 498-8290

Revised April 24, 2019 June 18, 2018 Dundee Farms LLC PID # 1311823310009 Medina, Hennepin County

This on-site Sewage Treatment System is partially designed for a Type III three -bedroom home in accordance with the Minnesota Pollution Control Agency Chapter 7080 and local ordinances. In order for a designer to design a type III system the designer must have reasonable assurance the system will function. The sites shown for the septic sites are on the highest ground on the Property. There is no guarantee that any septic system will function but the area shown is the best and only area this designer will design septic systems on this lot.

The system is a type III because There is less than 12 inches to the periodically saturated soils.

The city requires an operating permit to be in place for all type III systems. The city will set the requirements for the operating permit.

Once the house size, location and septic primary and future sites are chosen this design can be completed.

The periodically saturated soils were located at 0 lnches (mottled soil). Due to the periodically saturated soils, a pressurized mound system will need to be installed to treat the septic effluent. The bottom of the treatment area must be located at least 3' above the saturated soils.

The soils at a depth of 12" have a percolation rate averaging 11 MPI.

All new tanks need to be insulated if there is less than two feet of cover over the top of the tanks. Clean outs must be installed on the end of the laterals for maintenance.

A pumping chamber will need to be installed to lift the effluent to the treatment area. The power supply and switches must be located outside the manhole and pumping chamber in a weatherproof enclosure. A warning device must be installed with a light and sound device: this is in case of a pump failure.

Use 7/32-inch perforations on the laterals.

Keep all heavy equipment off of the proposed treatment areas before and after construction. The treatment area must be fenced off before construction begins. This Design is not valid & the System will need to be relocated if failure to protect the areas proposed for the On-Site Sewage Treatment systems occurs.

With proper installation and maintenance, this system should have no problem in treating septic effluent effectively. Nothing other than gray water, (laundry, showers, etc.) Human water and toilet tissue should be disposed of into the septic tanks. Iron filters cannot go into the septic system. Garbage disposals are not recommended. Additives must not be used they may cause harmful damage to your septic system. It is recommended that you pump the septic tanks every two years.

Sincerely,

Joseph J. Olson

(2) Percolation Tast (3) Soil Boring (3) Berich Mark Check all underground millities Scale: 1 = 40 G. MEDINA S A E4-(h) 4 Ī #15 @ 35

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Property of: DUNDER FARMS LLC MEDWA HELVENY COUNTY Daio 6 / 18 / 18 PH (763) 498-8779 Runy Olson's still and parcolation testing Duning ned by

2011 purple code

Mound Design

www.SepticResource.com (vers 15.2)

Property O	wner; Dundee Farms Inc	Date: 6/18/2018
Site Addres	s: N/A	PID: 1311823310009
Comments:	Periodically saturated soils at t	the surface Site A upslope
instructions:	= enter data = adjus	st if desired = computer calculated - DO NOT CHANGE!
1) 5 bedi	room Type III Residen	ntial System
2) 750 GPD	design flow	
3) No Garb	age disposal or pumped to septic	
4) 1500 Gal S	Septic tank (code minimum)	1500 Gal Septic tank (design size / LUG reg'd) Tank options: none
5) 1.2 GPD/	ft ² mound sand loading rate con	ntour loading rate of 12 req's a min 62.5 ft. long rockbed
6) 10.0 ft ro	ockbed width 63.0 ft rockbed leng	gth
7) 3.0 ft lat	eral spacing 3.0 ft perforation s	
8) 3 later		perfs / lateral 63 perfs total erf means the first perf starts at the middle feed manifold)
9) 1/4" inch	perfs at 1 feet residual head	gives 0.74 gpm flow rate per perforation
for this perf s	size & spacing, & pipe size on line 12, ma	ax perfs/lateral = 25 , line #8 must be less> OK
(0) 4.0 doses	per day (4 minimum)	
11) 188 gallor	ns per dose (treatment volume)	
12) 2.00 inch (fiameter laterals must be used to meet "4	
13) feet c	of 2.0 inch supply line lea	2.00 3x ads to ##### gallons of drainback volume (Tip: "top feed" manifold to control the drainback)
(4) ##### gallon	s TOTAL pump out volume (treatment +	drainback)
(5) feet v	ertical lift from pump to mound laterals,	, leads to a:
16) 47 GPM (##### feet of head, Pump requ	uirement (note: >50gpm may require an extra 3-6' of head)
171 750 gal Do leads		al Dose tank (design size / LUG req'd) at 25.49 gpi
(this de	livers Average flow, =70% of Peak design	
	from bottom of tank to "Pump OFF" float from bottom of tank to "Pump ON" float	
	from bottom of tank to "Hi Level" float,	
22) ##### gallon:	reserve capacity (after High Level Alar	

2011 purple code

Mound Design

www.SepticResource.com (vers 15.2)

Property Owner:	Dundee Farms Inc	Date: 6/18/2018
Site Address:	N/A	PID: 1311823310009
Comments:	Periodically saturated soils at the surface	Site A downslope
instructions: = ent	er data = adjust if desired	= computer calculated - DO NOT CHANGE!
1) 5 bedroom	Type III Residential	System
2) 750 GPD design f	low	
3) No Garbage disp	osal or pumped to septic	
4) 1500 Gal Septic ta		eptic tank (design size / LUG req'd) options: none
5) 1.2 GPD/ft ² mou	nd sand loading rate contour loading	rate of 12 req's a min 62.5 ft. long rockbed
6) 10.0 ft rockbed w	ridth 63.0 ft rockbed length	
7) 3.0 ft lateral spa		(maximum of 3 for both) fold connection
x) 3 laterals	61.0 feet long 21.0 perfs / latera (1/2 a perf means the	e first perf starts at the middle feed manifold)
9) 1/4" inch perfs at	1 feet residual head gives 0.74	gpm flow rate per perforation
for this perf size & sp	pacing, & pipe size on line 12, max perfs/later	ral = 25 , line #8 must be less> OK
10) 4.0 doses per day	(4 minimum)	
188 gallons per de	ose (treatment volume)	
	,	2.00 5x
2.00 inch diamete	r laterals must be used to meet "4x pipe volur	
(3) feet of	2.0 inch supply line leads to #####	2.00 3x gallons of drainback volume (Tip: "top feed" manifold to control the drainback)
(4) ##### gallons TOTA	L pump out volume (treatment + drainback)	
	lift from pump to mound laterals, leads to a: ##### feet of head, Pump requirement	(note: >50gpm may require an extra 3-6' of head)
leads to a		(design size / LUG req'd) at 25.49 gpi
(8) ###### inch swing on {this delivers A	Demand float, or timed dosing of ##### verage flow, =70% of Peak design flow) #####	
	ottom of tank to "Pump OFF" float	The description of the state of
	ottom of tank to "Pump ON" float, or 12 #####	inches to "Timer ON" float if time dosed inches to "Hi Level" float if time dosed
	e capacity (after High Level Alarm is activat	1

231	0.45 gpd/ft ² Absorption area Soil Loading Rate, which gives a mound ratio of 2.7 (minimum) (this must match the soil boring log) desired mound ratio 2.7
24)	2 percent site slope (0-20% range) 2 (% downslope site slope, if different than upslope)
25) 26)	0 inches, or 0.0 ft. to Redox or other limiting condition (need at least 12" to be a Type I) Treatment zone contains 0 inches of 0% soil credit, and 0 inches of 50% soil credit. Giving a: 36 inch, or 3.0 ft. Sand Lift Mound CRITICAL FOR FUTURE CERTIFICATIONS!!!
27) 28)	27.0 ft. Total ABSORPTION width (with sand beyond rockbed as follows:) 0.0 ft. upslope and sideslope 17.0 ft. Downslope Individual slope ratios give BERM widths (topsoil beyond rockbed) of:
29) 30) 31)	3:1 upslope ratio 14 ft. upslope berm 4:1 sideslope 21 ft. sideslope berms 4:1 downslope 23 ft. downslope berm
32)	Overall Dimensions: 10.0 ft. wide by 47 ft. wide by 105 ft. long Rock bed 105 ft. long Mound footprint
	Upslope berm 14 Downslope berm 12" cover on sides (6" loamy cap & 6" topsoil) Clean sand lift 0.0 Depth to Limiting Limiting Condition Absorption Width 27.0
	Note: For 0 to 1% slopes, Absorption Width is measured from the Bed equally in both directions. For slopes >1%, Absorption Width is measured downhill from the upslope edge of the Bed.
33)	Rock Bed: 10.0 ft. by 63.0 ft. by 6 inches under pipe, plus 20% gives 21 yd³ or *1.4= 29 ton
3-1)	Mound Sand: (note: volume is based on 3:1/4:1 slope from top of rockbed, Exchange sand for loamy cap if desired) 83.0 up + 137.8 downslope + 26.1 ends + 72.3 under rock = 383 yd ³ or *1.4= 536 ton plus 20%
35)	Loamy Cap: 43 ft. by 101 ft. 6" deep, plus 20% gives 97 yd or *1.4= 136 ton
36)	Topsoil: 47 ft. by 105 ft. 6" deep, plus 20% gives 110 yd or *1.4= 154 ton
	I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.
	Rusty Olson's Soil & Perc 810 6/18/2018
	Designer Signature Company License# Date

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2011 purple code

Mound Design

www.SepticResource.com (vers 15.2)

	Property Owner:	Dundee Farms Inc	Date: 6/18/2018
	Site Address:	N/A	PID: 1311823310009
	Comments:	Periodically saturated soils at the surface	Site B
instru	uctions: = ent	er data = adjust if desired	= computer calculated - DO NOT CHANGE!
Lj	5 bedroom	Type III Residential	System
2)	750 GPD design fl	low	
3)	No Garbage disp	osal or pumped to septic	
4)	1500 Gal Septic ta		eptic tank (design size / LUG req'd) options: none
5)	1.2 GPD/ft ² mou	nd sand loading rate contour loading	rate of 12 req's a min 62.5 ft. long rockbed
6)	10.0 ft rockbed w	idth 63.0 ft rockbed length	
7)	3.0 ft lateral span		(maximum of 3 for both) old connection
8)	3 laterals	61.0 feet long 21.0 perfs / latera (1/2 a perf means the	l 63 perfs total e first perf starts at the middle feed manifold)
9)	1/4" inch perfs at	1 feet residual head gives 0.74	gpm flow rate per perforation
A Michigan Paragraphic Company	for this perf size & sp	acing, & pipe size on line 12, max perfs/later	ral = 25 , line #8 must be less> OK
10)	4.0 doses per day	(4 minimum)	
11}	188 gallons per do	ose (treatment volume)	
		•	2.00 5x
12)	2.00 inch diameter	laterals must be used to meet "4x pipe volun	
13)	feet of	2.0 inch supply line leads to #####	gallons of drainback volume (Tip: "top feed" manifold to control the drainback)
14)	###### gallons TOTAL	. pump out volume (treatment + drainback)	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
15)		ift from pump to mound laterals, leads to a:	/ 1 50
16)	47 GPM @	##### feet of head, Pump requirement	(note: >50gpm may require an extra 3-6 of head)
17)	750 gal Dose tank leads to a	(code minimum) 1250 gal Dose tank	(design size / LUG req'd) at 25.49 gpi
18)	###### inch swing on		, , ,
1614	larana ana ana ana ana	rerage flow, =70% of Peak design flow) #####	hrs OFF test and adjust as necessary)
19) 20)	<u> </u>	ottom of tank to "Pump OFF" float ottom of tank to "Pump ON" float, or 12	inches to "Timer ON" float if time dosed
21)		· · · · · · · · · · · · · · · · · · ·	inches to "Hi Level" float if time dosed
22)	##### gallons reserve	e capacity (after High Level Alarm is activate	ed)

23)		area Soil Loading Rate, watch the soil boring log)	hich gives a mound ratio of desired mound ratio	
24)	2 percent site slope		wnslope site slope, if differe	ent than upslope)
25) 26)	0 inches, or 0.0 Treatment zone 36 inch, or 3.0	ft. to Redox or other limiting conditions contains 0 inches of 0% soil cred ft. Sand Lift Mound CRITIC		% soil credit. Giving a:
	27.0 ft. Total ABSORPTION	I width (with sand beyond rockbed a	as follows:)	
27) 28)	0.0	ft. upslope and sideslope ft. Downslope		THE PARTY OF THE P
		ERM widths (topsoil beyond rockbed) o	of:	Registration of the Control of the C
29)	4:1 upslope ratio 19	ft. upslope berm		2277
30) 31)	4:1 sideslope 21 4:1 downslope 23	ft. sideslope berms ft. downslope berm		r, produced and a second a second and a second a second and a second a second and a
32)	Overall Dimensions:		ong Rock bed ong Mound footprint	Committee 25 and Australia
		4" inspection pipe		Service accession of the service accession of
		18" cover on to	p	
	Upslope berm 19		Downslope berm	23
	1		- 12" cove	er on sides
	The state of the s	TO THE OWNER OF THE OWNER		ap & 6" topsoil)
	3.0	Clean sand lift	The same of the sa	***************************************
	0.0	Depth to Limiting	and a part of the same of the	
	Limiting Condition			
		Absorption Width	27.0	Marie Marie Marie Marie angle come on
	Note: For 0 to 1% slopes, <i>Abs</i> For slopes >1%, <i>Absorp</i>	orption Width is measured from tion Width is measured downhil	n the <i>Bed</i> equally in bo I from the upslope edg	th directions. e of the <i>Bed</i> .
33)	Rock Bed: 10.0 ft. by 63.0 ft. by	6 inches under pipe, plus 20%	gives 21 yd³ or *1.4=	ton
34)	Mound Sand: (note: volume 106.3 up + 137.8 downs	e is based on 3:1/4:1 slope from top of slope + 26.1 ends + 72.3 under plus 2	rock = 411 yd ³ or *1.4=	or loamy cap if desired) 576 ton
35)	Loamy Cap: 48 ft. by 101 ft. 6	deep, plus 20% gives	108 yd³ or *1.4=	151 ton
36)	Topsoil: 52 ft. by 105 ft. 6	' deep, plus 20% gives	122 yd³ or *1.4=	171 ton
	I hereby certify that I have o	completed this work in accordance wit	h all applicable ordinances,	rules and laws.
		Donato Olemana Sail S. Dana	910	6/18/2018
	Designer Signature	Rusty Olson's Soil & Perc Company	810 License#	Date
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Soil Observation Log

www.SepticResource.com vers 12.4

			Owner Info	rmation			
Property Ow	ner / project:	Dundee Farms Inc			Date	5/2	3/2018
Property Address / PID:			131182	3310009			
			Soil Survey I	nformation	refer	to attached so	oil survey
Parent matl's			Outwash	acustrine 🔲 Allu	vium 🗌 O	rganic [Bedrock
landscape po	sition:	Summit	Shoulder	✓ Side slope	Toe slope		
soil survey m	nap units:	L45A		slope 2	_% direction-	Linear	*****
			Soil Lo				
	✓ Boring		Elevation	98.5 redox color	Depth to SHWT consistence	grade	_ inches shape
Depth (in)	Texture	fragment %	matrix color	redox color	Consistence	grade	Shape
0-6	Topsoil	< 3.5	2.5y2.5/1		Friable	Moderate	Blocky
6-12	Sandy Clay Loam	<35	2.5y4/2	10y4/8	Firm	Strong	Blocky
12-24	Clay Loam	<35	2.5y5/2	10y4/8,1-6/10y	Firm	Strong	Blocky
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose firiable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive

1.31E+1	1.31E+12 Soil Log #2						
	✓ Boring	9 🔲 Pli	t Elevation	98.5	Depth to SHW	г 0	inches
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0-6	Topsoil	<35	2.5y2.5/1		Friable	Moderate	Blocky
6-12	Sandy Clay Loam	<35	2.5y4/2	10y4/8	Firm	Strong	Blocky
12-24	Clay Loam	<35	2.5y5/2	10y4/8,1-6/10y	Firm	Strong	Blocky
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
	The state of the s	<35 35 - 50 >50			loose friable finn rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
1.31E+12			Se	oil Log #3	744 Min 27		
	✓ Boring	Pit	Elevation	97.5	Depth to SHWT	0	inches
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0-6	Topsoi!	<35	2.5y2.5/I		Friable	Moderate	Blocky
6-16	Sandy Clay Loam	<35	2.5y3/l	10y4/8	Firm	Strong	Blocky
16-24	Clay Loam	<35	2.5y4/3	10y4/8,1-6/10y	Firm	Strong	Blocky
		<35 35 - 50 >50			friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
and the second s		<35 35 - 50 >50			friable tirm	loose weak noderate strong	single grain granutar blocky prismatic platy massive

I hereby certify this work was completed in accordance w	ith MN 7080 and any local rea's.	
	Rusty Olson's Soil & Perc	810
Designer Signature	Сотрапу	License #

1.31E+12			So	oil Log #4			
	✓ Boring	Pit	Elevation	97.5	Depth to SHW7	. 0	
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0-6	Topsoil	<35	2.5y2.5/1		Friable	Moderate	Blocky
6-24	Sandy Clay Loam	<35	2.5y4/3	10y4/8	Firm	Strong	Blocky.
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
1.31E+12			S	oil Log #5			
	✓ Boring	Pit	Elevation	98.2	Depth to SHW1		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0-6	Topsoil	<35	2.5y2.5/1		Friable	Moderate	Blocky
6-12	Sandy Clay Loam	<35	2.5y4/2	10y4/8	Firm	Strong	Blocky
12-24	Clay Loam	<35	2.5y5/2	10y4/8,1-6/10y	Firm	Strong	Blocky
And the state of t		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50	77,1-1-11111111111111111111111111111111		loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatie platy massive

I hereby certify this work was completed in accordance with MN 7080 and any local reg's.

Designer Signature

Company

License #

Soil Observation Log

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			Owner Inf	ormation			
Property Ow	ner / project:	Dundee Fa	rms Inc		Date	e 5/2	3/2018
Property Ad	dress / PID:		131182	3310009			
			Soil Survey I	nformation	refer	to attached so	oil survey
Parent matl's	:	☑ Till [Outwash 🔲 L	acustrine 🔲 Allu	ıvium 🗌 O	rganic [Bedrock
landscape po	sition:	Summit	Shoulder	Side slope	Toe slope		
soil survey n	nap units:	<u>L45A</u>		slope 2	_% direction	- Linear	replace
			Soil La	na #6	Marketin in the Control of the Contr		
	✓ Boring	☐ Pit			Depth to SHWT	0	inches
Depth (in)	Texture	fragment %	matrix color		consistence	grade	shape
0-6	Topsoil	<35	2.5y2.5/1		Friable	Moderate	Błocky
6-16	Clay Loam	<35	2.5y4/3	10y4/8	Firm	Strong	Blocky
16-24	Sandy Clay Loam	<35	2.5y5/2	10y4/8,1-6/10y	Firm	Strong	Blocky
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose firiable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
Comments:			,				

Lic.#810

Percolating test readings made by: Rusty Olson's Perc. starting at 9:57 A.M. On 5/24/18

Location: PID #1311823310009

Hole number: 1

Date hole was prepared: 5/23/18

Depth of hole bottom __12"___ inches, Diameter of hole __6"__ inches.

Soil data from test hole:

Depth, inches

Soil texture

0-6

Topsoil 2.5y2.5/1

6-12

Sandy Clay loam 2.5y4/2

Method of scratching side wall: Knife

Depth of gravel in bottom of hole 2 inches:

Date of initial water filling 5/23/18 depth of Initial water filling 12 inches above the hole bottom Method used to maintain at least 12 inches of water depth in hole for at least 4 hours Automatic Siphon Maximum water depth above hole bottom during tests 6 inches

Time	Time	Depth	Drop in H20	Perc Rate
10:07	10:37	6"	2.4	12.5
10:44	11:14	6"	2.4	12.5
11:15	11:45	6"	2.4	12.5

AVERAGE PERC. RATE	12.5	MPI
	- No.	

Lic.#810

Percolating test readings made by: Rusty Olson's Perc. starting at 9:57 A.M. On 5/24/18

Location: PID #1311823310009

Hole number: 2

Date hole was prepared: 5/23/18

Depth of hole bottom __12"___ inches, Diameter of hole __6"__ inches.

Soil data from test hole:

Depth, inches Soil texture
0-6 Topsoil 2.5y2.5/1

6-12 Sandy Clay loam 2.5y4/2

Method of scratching side wall: Knife Depth of gravel in bottom of hole 2 inches:

Date of initial water filling 5/23/18 depth of initial water filling 12 inches above the hole bottom Method used to maintain at least 12 inches of water depth in hole for at least 4 hours Automatic Siphon Maximum water depth above hole bottom during tests 6 inches

Time	Time	Depth	Drop in H20	Perc Rate
10:08	10:38	6"	2.6	11.5
10:43	11:13	6"	2.6	11.5
11:16	11:46	6"	2.6	11.5

1	AVERAGE PERC. RATE	11.5	MDI
3	7.7727.702.727.777.	11.0	MPI

Lic.#810

Percolating test readings made by: Rusty Olson's Perc. starting at 9:57 A.M. On 5/24/18

Location: PID #1311823310009

Hole number: 3

Date hole was prepared: 5/23/18

Depth of hole bottom __12"___ inches, Diameter of hole __6"__ inches.

Soil data from test hole:

Depth, inches

Soil texture

0-6

Topsoil 2.5y2.5/1

6-12

Sandy Clay loam 2.5y3/1

Method of scratching side wall: Knife

Depth of gravel in bottom of hole 2 inches:

Date of initial water filling 5/23/18 depth of initial water filling 12 inches above the hole bottom Method used to maintain at least 12 inches of water depth in hole for at least 4 hours Automatic Siphon Maximum water depth above hole bottom during tests 6 inches

Time	Time	Depth	Drop in H20	Perc Rate
10:09	10:39	6"	4.2	7.1
10:42	11:12	6"	4.1	7.3
11:17	11:47	6"	4.1	7.3

THE RESERVE OF THE PARTY OF THE		and the state of t	
AVERAGE PERC		7.9	MPI
I AVERAGE PERO	. NATE	1.4	3A41. 3 B

Lic.#810

Percolating test readings made by: Rusty Olson's Perc. starting at 9:57 A.M. On 5/24/18

Location: PID #1311823310009

Hole number: 4

Date hole was prepared: 5/23/18

Depth of hole bottom __12"___ inches, Diameter of hole __6"__ inches.

Soil data from test hole:

Depth, inches Soil texture
0-6 Topsoil 2.5y2.5/1

6-12 Sandy Clay loam 2.5y4/3

Method of scratching side wall: Knife

Depth of gravel in bottom of hole 2 inches:

Date of initial water filling 5/23/18 depth of initial water filling 12 inches above the hole bottom Method used to maintain at least 12 inches of water depth in hole for at least 4 hours Automatic Siphon Maximum water depth above hole bottom during tests 6 inches

Time	Time	Depth	Drop in H20	Perc Rate	
10:10	10:40	6"	2.2	13.6	
10:41	11:11	6"	2.2	13.6	
11:18	11:48	6"	2.2	13.6	

1	AVERAGE PERC RATE	13.6 MDI
1	AVERAGE PERU, RATE	13.6 MPI I
-1		