

APPLICATION

PERCOLATION TESTING

A 514900
P _____

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
3525-H ELLICOTT MILLS DRIVE/ELLICOTT CITY, MARYLAND 21043
TELEPHONE: 313-2840

DISTRICT _____
HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
3525-H ELLICOTT MILLS DRIVE/ELLICOTT CITY, MARYLAND
TELEPHONE: 313-2840

TO: THE COUNTY HEALTH OFFICER
ELLICOTT CITY, MARYLAND

TO: THE COUNTY HEALTH OFFICER
ELLICOTT CITY, MARYLAND

I HEREBY APPLY FOR THE NECESSARY TEST PRIOR TO APPLICATION FOR PERMIT TO CONSTRUCT (OR RECONSTRUCT) A SEWAGE DISPOSAL SYSTEM.

PROPERTY OWNER Hamish S. Osborne PROPERTY OWNER Hamish S. Osborne

ADDRESS P.O. Box 1555, Easton, MD 21601-2150 PHONE 410-220-0405 ADDRESS P.O. Box 2150, Easton, MD

AGENT OR PROSPECTIVE BUYER Heritage Land Development AGENT OR PROSPECTIVE BUYER Heritage Land

3060 Washington Road, Suite 220
ADDRESS Glenwood, MD 21738 PHONE 410-489-7960 ADDRESS 3060 Washington Road, Suite 220, Glenwood, MD 21738

PROPERTY LOCATION:

PROPERTY LOCATION:

SUBDIVISION Woodmark LOT NO. _____ SUBDIVISION Woodmark

ROAD AND DESCRIPTION S. 12 Benson Branch Road ROAD AND DESCRIPTION S. 12 Benson Branch Road

TAX MAP 22 PARCEL # 520

TAX MAP 22 PARCEL # 520

SIZE OF LOT 5.777 TYPE BLDG. _____ SIZE OF LOT 5.777
(SINGLE FAMILY DWELLING OR COMMERCIAL)

THE SYSTEM INSTALLED UNDER THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC FACILITIES BECOME AVAILABLE. I HEREBY UNDERSTAND THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC FACILITIES BECOME AVAILABLE.

FEE CONNECTED WITH THE FILING OF THIS PERC TEST APPLICATION IS NON-REFUNDABLE UNDER ANY CIRCUMSTANCES. I ALSO AGREE TO PAY THE PERC TEST FEE.

COMPLY WITH ALL M.O.S.H.A. REQUIREMENTS IN TESTING THIS LOT. _____
(SIGNATURE OF APPLICANT)

APPROVED BY _____ FOR _____ DATE _____

DISAPPROVED BY _____ FOR _____ DISAPPROVED BY _____

HOLD PENDING FURTHER TESTS _____ HOLD PENDING FURTHER TESTS _____

REASONS FOR REJECTION OR HOLDING _____ REASONS FOR REJECTION OR HOLDING _____

PERCOLATION TEST PLAT/PRELIMINARY PLAT - TITLE OR I.D. # _____ PERCOLATION TEST PLAT/PRELIMINARY PLAT - TITLE OR I.D. # _____

SITE DEVELOPMENT PLAN/FINAL PLAT - TITLE OR I.D. # _____ SITE DEVELOPMENT PLAN/FINAL PLAT - TITLE OR I.D. # _____

THIS IS NOT A PERMIT IS

A514906

Woodman lot 5

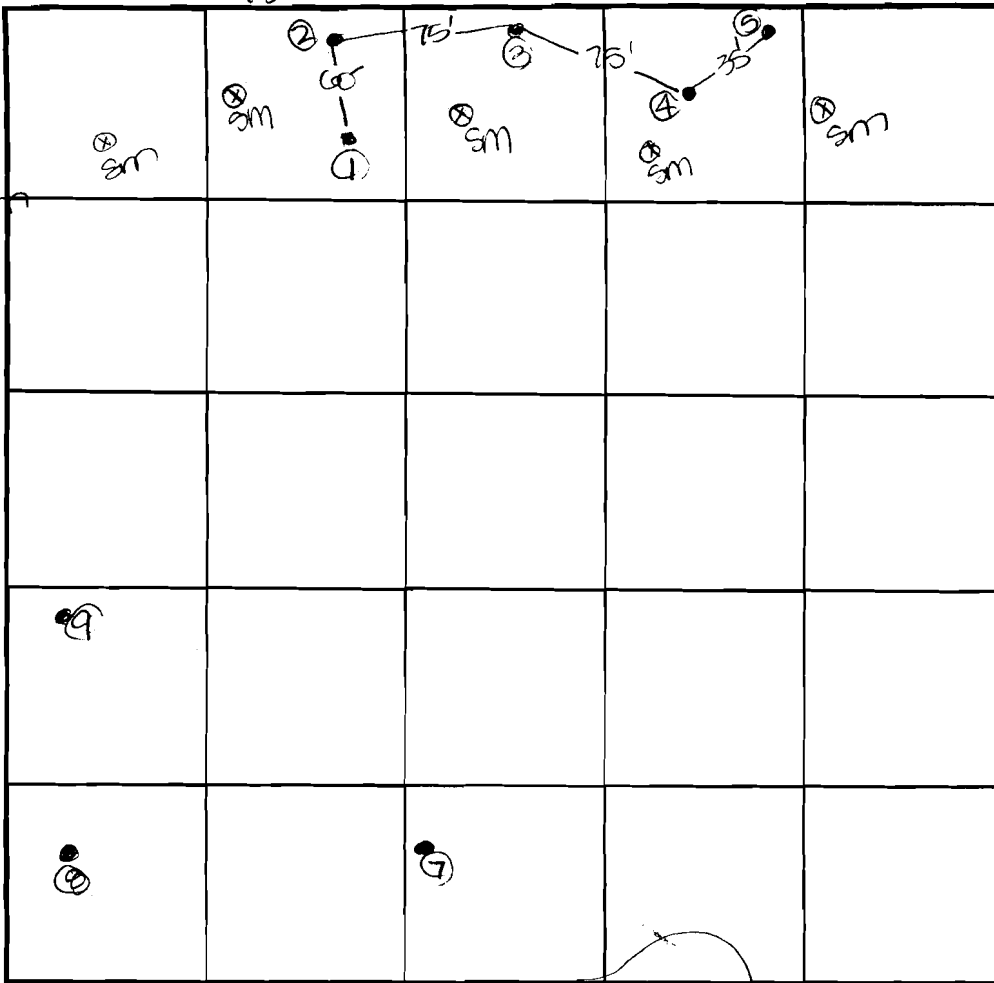
COUNTY #

SOIL PROFILE

0' ①
 6" topsoil
 dull org brn sil cl m
 58" parched water table
 dull org brn sil cl m

13'8" ②/③
 0' topsoil
 6" org red brn sil cl m
 4.5' dull brn sil cl m

0' ④
 6" topsoil
 dull org brn sil cl m
 to
 dull org brn to grey brn sil cl m
 5' water



SOIL PROFILE

0' ⑥
 6" topsoil
 dull org brn sil cl m
 4.5' quartz bars
 6" red org brn sil cl m
 11' water ⑤

0' ⑤
 6" topsoil
 org brn sil cl m
 org red brn sil cl m
 seepage
 water

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
2-13-01	1	3.5'S	10:26	10:29	10:29	10:33	4
		13'8" D	visual	see profile			FAIL
	2	3.5'S	10:37	10:45	10:45	10:53	FAIL
	3	2.5'S	11:01	11:50	11:50	slow	FAIL
	4	5.0'D	Water - see profile				FAIL
	5	9.0'D	Water (seepage @ 8.0')				FAIL
	6	11.0'D	Water (see profile)				FAIL

REMARKS

TYPE OF SOIL

TESTED BY ELL

ALSO PRESENT C. Zepp, J. Feagya

TRENCH DESIGN DATA: AVG. PERCOLATION TIME

TRENCH WIDTH

INLET DEPTH

MAXIMUM BOTTOM DEPTH

SQ. FT./BEDROOM

10/13/01
10:00

APPLICATION

PERCOLATION TESTING

A 514906

P _____

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
3525-H ELLICOTT MILLS DRIVE/ELLICOTT CITY, MARYLAND 21043
TELEPHONE: 313-2640

SAND MOUND
TESTS ON
PREVIOUSLY
NON-BUILDABLE
LOT

DISTRICT _____

DATE _____

TO: THE COUNTY HEALTH OFFICER
ELLICOTT CITY, MARYLAND

I HEREBY APPLY FOR THE NECESSARY TEST PRIOR TO APPLICATION FOR PERMIT TO CONSTRUCT (OR RECONSTRUCT) A SEWAGE DISPOSAL SYSTEM.

PROPERTY OWNER Osborne

ADDRESS _____ PHONE _____

AGENT OR PROSPECTIVE BUYER _____

ADDRESS _____ PHONE _____

PROPERTY LOCATION:

SUBDIVISION Woodmark LOT NO. 5

ROAD AND DESCRIPTION Benson Branch Road

TAX MAP _____ PARCEL # _____

SIZE OF LOT _____ TYPE BLDG. _____
(SINGLE FAMILY DWELLING OR COMMERCIAL)

THE SYSTEM INSTALLED UNDER THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC FACILITIES BECOME AVAILABLE. I FULLY UNDERSTAND THE FEE CONNECTED WITH THE FILING OF THIS PERC TEST APPLICATION IS NON-REFUNDABLE UNDER ANY CIRCUMSTANCES. I ALSO AGREE TO COMPLY WITH ALL M.O.S.H.A. REQUIREMENTS IN TESTING THIS LOT.

(SIGNATURE OF APPLICANT)

APPROVED BY _____ FOR _____ DATE _____

DISAPPROVED BY _____ FOR _____ DATE _____

HOLD PENDING FURTHER TESTS _____

REASONS FOR REJECTION OR HOLDING _____

PERCOLATION TEST PLAT/PRELIMINARY PLAT - TITLE OR I.D. # _____ DATE _____

SITE DEVELOPMENT PLAN/FINAL PLAT - TITLE OR I.D. # _____ DATE _____

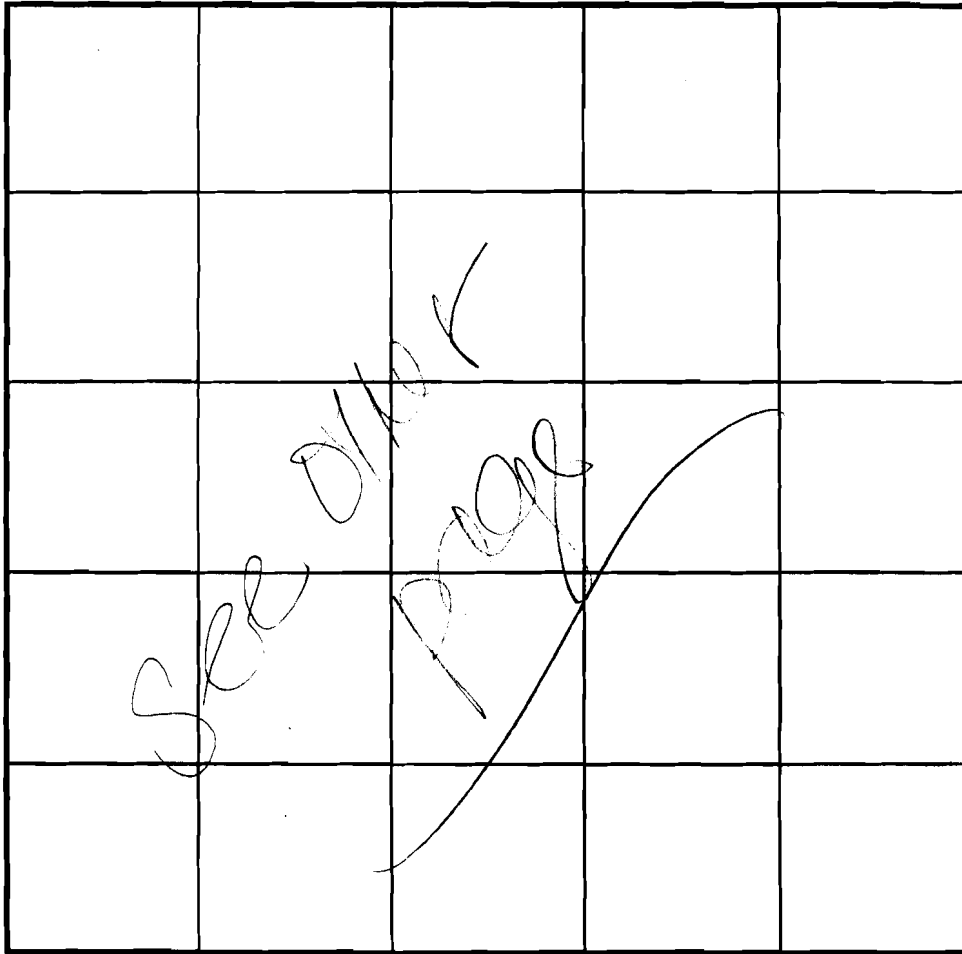
THIS IS NOT A PERMIT

SOIL PROFILE

0' ①
6" topsoil
dull org brn c1 lm
br red org brn s1 c1 lm
7.5' seepage
12' water

0' ②
6" topsoil
org red brn c1 lm
tan s1 lm
13'

0' ③
6" topsoil
dull org red brn c1 lm
cave in
8' water



SOIL PROFILE

0'

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
2-13-01	7	12.0'D	(water seepage @ 9.5")				FAIL
	8	13.0'D	visual - see profile				OK
	9	8.0'D	water - see profile				FAIL

REMARKS _____
 TYPE OF SOIL _____
 TESTED BY DXC ALSO PRESENT Cripp T. Reaga
 TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME _____ TRENCH WIDTH _____
 INLET DEPTH _____ MAXIMUM BOTTOM DEPTH _____ SQ. FT./BEDROOM _____



HOWARD COUNTY HEALTH DEPARTMENT

Diane L. Matuszak, M.D., M.P.H., County Health Officer

February 4, 2002

Mr. Hamish S. Osborne
C/o Heritage Land Development
3060 Washington Road, Suite 220
Glenwood, Maryland 21738

RE: Sand Mound Percolation test results
Application Number: A514906
Proposal: Lot of Record (non-Buildable)
Property ID: Woodmark Lot 5
Benson Branch Road
Tax Map: 22 Parcel: 520

Dear Mr. Osborne:

Percolation testing for Sand Mound type septic systems was continued on November 13, 2000 on the above referenced property. Previous testing for sand mound systems was conducted on February 13 and April 20, 2001. The percolation test rates utilizing **Infiltrometers** were, for the most part, too slow for new construction. Previous testing primarily showed limiting conditions due to seasonal high water tables or soil conditions indicative of seasonally high water tables in most of the other excavations tested. They also showed slow perc rates, or tests not run sufficiently long past their initial presoak interval to determine a steady infiltration rate. Copies of the most recent percolation test results are enclosed.

In summary, the sand mound testing to date has provided only three test holes with acceptable rates for sand mound type septic systems on this property (i.e. Test Holes 1001, 1002, and 1003). These three test holes so far demonstrate area suitable for no more than one sand mound (depending on proposed house size). For a lot of record, you would have to provide a Sewage Disposal Area for at least two such appropriately sized systems plus the required setbacks.

If you wish to continue testing this property, I have some advice. The soil morphology at TP 1004A as well the simpler descriptions of Feb 2001 indicate rather clayey soils (clay loams or sandy clay loams) to at least 5 ft. below grade, and marked evidence of water tables below 5 ft. (except at TP 8). The deeper excavations of Feb. 2001 were done at a time when water levels at our monitoring well site in this county were substantially lower than those observed in previous years or later in the wet season. If testing for one conventional septic system on the high ground near TP 8 is contemplated, it must be done when observed water levels in known monitoring wells are at their highest.

If you have any questions regarding this matter, please feel free to contact me at the address above or by calling (410) 313-2640.

Very truly yours,

Ronald J. Pinkley, R.S.
Water and Sewerage Program

Enclosures
cc: T. Feaga
C. Zepp
File

TEST DATA

NAME <u>Osborne</u>	FILE NO <u>A514906</u>
LOCATION <u>Woodmark lot 5</u>	COUNTY <u>Howard</u>
	DATE <u>4-20-01</u>
	GRID _____ E
RECORDED BY <u>DKC</u>	N

HOLE NO.	TEST NO.	DEPTH	CLOCK TIME	ELAPSED TIME	MEASUREMENT	REMARKS (Method, Moisture, Biopores)	
A		17-23	11:46		8"	} 2/32	
			12:02		7 ³⁰ /32"		
			12:17		7 ³⁰ /32"		
			12:32	<i>Too Slow</i>	7 ²⁹ /32		
				<i>Fail</i>			
B		14-20"	11:35		-8"	} 2/32	
			12:00		7 ³⁰ /32		
			12:15	<i>Not Presoaked Fully Looks May be Too Slow</i>	7 ³⁰ /32		} 0
			12:30		7 ³⁰ /32		} 0

17-23
too slow

TEST DATA

NAME Osborne FILE NO A 5149106
 LOCATION Woodmark lot 5 COUNTY Howard
 DATE 4-20-01
 GRID _____ E
 RECORDED BY DVC _____ N

HOLE NO.	TEST NO.	DEPTH	CLOCK TIME	ELAPSED TIME	MEASUREMENT	REMARKS (Method, Moisture, Biopores)
C		18"-24"	10:50		8"	
			11:20		6" ¹⁸ /32	114/32
			11:35		6"	100/32
			11:50		5" ¹⁴ /32	100/32
			12:05		5"	116/32
			12:20		4" ²⁴ /32	100/32
			12:35			
			12:50			
			1:05			
D		16"-22"	10:55		8"	
			11:25		7" ²⁴ /32	100/32
			11:40		7" ²⁰ /32	24/32
			11:55		7" ¹⁸ /32	24/32
			12:10		7" ¹⁴ /32	24/32
			12:25		7" ¹⁴ /32	24/32
			12:40			
	12:55					
	1:10					

TEST DATA

NAME <u>Osborne</u>	FILE NO <u>A514906</u>
LOCATION <u>Woodmark 1015</u>	COUNTY <u>Howard</u>
	DATE <u>4-20-01</u>
	GRID _____
RECORDED BY <u>DLC</u>	

HOLE NO.	TEST NO.	DEPTH	CLOCK TIME	ELAPSED TIME	MEASUREMENT	REMARKS (Method, Moisture, Biopores)
E		16"-22"	11:00		0"	
			11:27		729/32	> 6/32
			11:42		724/32	> 2/32
			11:57		722/32	> 4/32
			12:12		718/32	> 4/32
			12:27		714/32	> 2/32
			12:42			
			12:57			
			1:12			
F		16"-22"	11:10		0"	
			11:28		729/32	> 4/32
			11:43		720/32	> 0
			11:58		721/32	> 0
			12:13		720/32	> 0
			12:38		720/32	> 0
			12:43			
			12:58			
	1:13					

*not pushed enough
& too slow*

toaster



HOWARD COUNTY HEALTH DEPARTMENT

Diane L. Matuszak, M.D., M.P.H., County Health Officer

June 18, 2001

Mr. Hamish S. Osborne
C/o Heritage Land Development
3060 Washington Road, Suite 220
Glenwood, Maryland 21738

RE: Percolation Test Results
Application: A514906
Proposal: Sand mound percolation testing
Property ID: Woodmark, Lot #5
Benson Branch Road
Tax Map: 22 Parcel #520

Dear Sir:

Sand mound percolation testing was conducted on the above referenced property on April 20, 2001. A copy of the test results is enclosed for your records.

Sand mound testing in certain locations on the property indicated unsatisfactory test results. However, preliminary results indicated a possibility of successful sand mound testing in other areas of the lot. In order to continue with the proposal, it shall be necessary for you to submit a revised percolation test plan with the actual locations of all previous sand mound tests, along with a proposal to complete testing.

Once the revised plan is submitted and approved, then another test date shall be assigned and you shall be notified by mail.

If you have any questions regarding this matter, please contact me at the address below or by calling (410) 313-2640.

Sincerely,

Donna K. Clark, R.S.
Water and Sewerage Program

DKC
Cc: file

TEST DATA

NAME Osborne **FILE NO** A54906
LOCATION Woodmark lot 5 **COUNTY** Howard
DATE 4-20-01
GRID _____ **E**
RECORDED BY DLC **N**

HOLE NO.	TEST NO.	DEPTH	CLOCK TIME	ELAPSED TIME	MEASUREMENT	REMARKS (Method, Moisture, Biopores)
4		15"-20"	2:12		8"	> 0
			2:27		8"	> 0
			2:42		8"	> 0
			2:57	Too Slow on pressure <u>Fail</u>	729/32	< 4/32
			3:27		728/32	> 0
5		14"-20"	2:29		8"	> 4/32
			2:44		728/32	> 4/32
			2:59	Too Slow on pressure <u>Fail</u>	720/32	< 4/32
			3:29		720/32	> 6/32
6		14"-20"	2:32		8"	> 4/32
			2:47		728/32	> 4/32
			3:02	Too Slow on pressure <u>Fail</u>	729/32	< 2/32
			3:32		724/32	> 0

TEST DATA

NAME <u>Osborne</u>	FILE NO <u>A 514906</u>
LOCATION <u>Woodmark 10+5</u>	COUNTY <u>Howard</u>
	DATE <u>4-20-01</u>
	GRID _____ E
RECORDED BY <u>DKC</u>	N

HOLE NO.	TEST NO.	DEPTH	CLOCK TIME	ELAPSED TIME	MEASUREMENT	REMARKS (Method, Moisture, Biopores)
1		14-20"	2:05		8"	
			2:20		8"	
			2:35		8"	
			2:50		8"	
			3:20		8"	
				Fail		NO movement
2		13'-19"	2:07		8"	
			2:22	<i>Presoaked only Need to run test to second inch of fall on steady rotary fall for 3 successive intervals</i>	7 24/32	8/32
			2:37		7 16/32	8/32
			2:52		7 10/32	6/32
			3:22		7 0/32	10/32
			?			
3		14"-20"	2:10		8"	
			2:25	<i>Presoaked only Need to run out test</i>	7 24/32	8/32
			2:40		7 21/32	3/32
			2:55		7 16/32	9/32
			3:25		7 8/32	8/32

11/13/01 Woodmanlot 5 R/Pentley
R/P

Infiltration Test #	depth	start	level drop	Remarks
1003	10"-16"	12:26	7"	* Same pressure (24hr) + sand in bottom of I infiltrator 3 1/4" in 30 min = <u>10mpa</u> pass
		12:46	5 13/16"	
		1:04	5 5/32"	
		1:34	4 3/4"	

1004 A observation hole

0-2"	10YR 3/2 (v. light gray) L-SL (3uf gran) dry	} plow pan??
2-4"	10YR 3/4 (light tan) L (2-1/2 ssk) dry	
4-9"	10YR 4/6 (light tan) L-vfSL (12-m ssk) dry w/ pores, c.m. roots, <u>Fragegan</u>	} irregular horizon
9"-14"	10YR 5/8 yel tan SCL (urban Manganese) (2.5 ssk) 4% clay films (about 29% clay)	
14-19"	10YR 5/6-5/4 (yel tan) hSL (micaceous) mfr (12 m ssk)	} possible perched water table (Fragegan)
19-29"	10YR 6/6 (v. light tan) h mic L (moist) (12-m ssk) (12-m ssk) (in profile only)	
29-33"	white + yel (10YR 7/6) (mic SIL) dry (mfr) (12-m ssk) (12-m ssk)	} occasional water table?
33-4'	2 f sd yel red (5YR 5/8) compacted mass	
Mix -64"	Moist yel red + yel tan mix mic hK-CL massive (mfr)	
-69"	var color mic L-SIL yel-tan, gray, white etc massive (mfr)	
69" L	Red (10R 4/8) mic SIL-hSIL wet-v moist	
Bottom	± F3D purple (10YR 5/1-5/2) + c263d white/crown particles	
To M'	var. fed ± f-cyl <u>Bottom</u> SiCL-SiL (moist) to Red tan / white-crown mix hL-hSSL ± trace Red/purple gray SL (horizon) massive (Big chunks, blocks) Mostly to clayey <u>littles</u> but No water seen	

11/13/01

Woodmark lot 5

PPulley

Test	Depth	Start	Level
Test 1005	8"-14"	1:46:00	7"
		2:08:00	6 11/16"
		2:28	6 8/16"
		2:48	6 4/16"
		3:11	6 2/16"
		3:57	5 14/16"

$\frac{1}{8}$ " in 23 min
 $\frac{1}{4}$ " in 46 min ≈ 184 rpm too slow
 Fail

Test	Depth	Start	Level
Test 1006	8"-14"	1:52	7"
		2:11	6 11/16"
		2:30	6 5/16"
		2:50	6 3/16"
		3:13	6 1/16"
		3:59	5 29/32"

$\frac{1}{8}$ " in 23 min
 $\frac{7}{32}$ " in 46 min ≈ 210 rpm too slow
 Fail

Test	Depth	Start	Level
Test 1009	8"-14"	1:59:00	7"
		2:12:00	6 11/16"
		2:33	6 8/16"
		2:53	6 6/16"
		3:14	6 4/16"
		4:00	5 15/16"

$\frac{1}{8}$ " in 20 min
 $\frac{1}{8}$ " in 21 min
 $\frac{5}{16}$ " in 46 min ≈ 148 rpm too slow
 Fail

Woodcock Lot 5 RPKilly

Sand Round Testing present - Tim Faga, Chuck Zapp, Justin Brandel

4/13/01 RPK

Test #	Depth	Start	Level Drop
#1001	12" - 18"	11:37:00	7' even
		11:57:00	6 3/4"
		12:17:00	6 13/32"
		12:37:00	6 7/16"
		1:01	6 7/16"
		1:32	5 15/16"

Remarks
 * Hole was pre-soaked 4" yesterday, No evidence of leakage
 * Sand layer @ Top of soil being tested - OK

1/2" in 55 min @ 110 mpi OK for alternative system
 5/16" in 31 min = Test Not Run long enough
 Needed to test second core

Test #	Depth	Start	Level Drop
1004	9" - 15"	11:52:00	7" even
		12:15:00	6 7/8"
		12:35:00	6 25/32"
		1:00	6 9/16"
		1:30	6 7/16"

* pre-soak + sand layer same as #1001

2/16" in 30 min @ 240 mpi Too slow
Fail

Test #	Depth	Start	Level Drop
1002	8" - 14"	11:59:00	7"
		12:19:00	6 3/8"
		12:39:00	5 15/16"
		1:02	5 3/16"
		1:33	4 15/16"

* pre-soak + sand layer same as others

9/16" in 37 min @ 53 mpi pass