

**Recovery Well Installation Data Package
October 2011**

**Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, Cecil County, Maryland 21901**

**OCP Case No. 2011-0729-CE
MDE Facility No. 13326**

AEC Project Number: 05-056 RF096

Prepared for:

Maryland Department of the Environment
Oil Control Program
Montgomery Park
1800 Washington Boulevard
Baltimore, Maryland 21230-1719

And

Royal Farms / Two Farms, Inc.
3611 Roland Avenue
Baltimore, Maryland 21211

Prepared by:

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March 20, 2012

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC

This package contains the following documents:

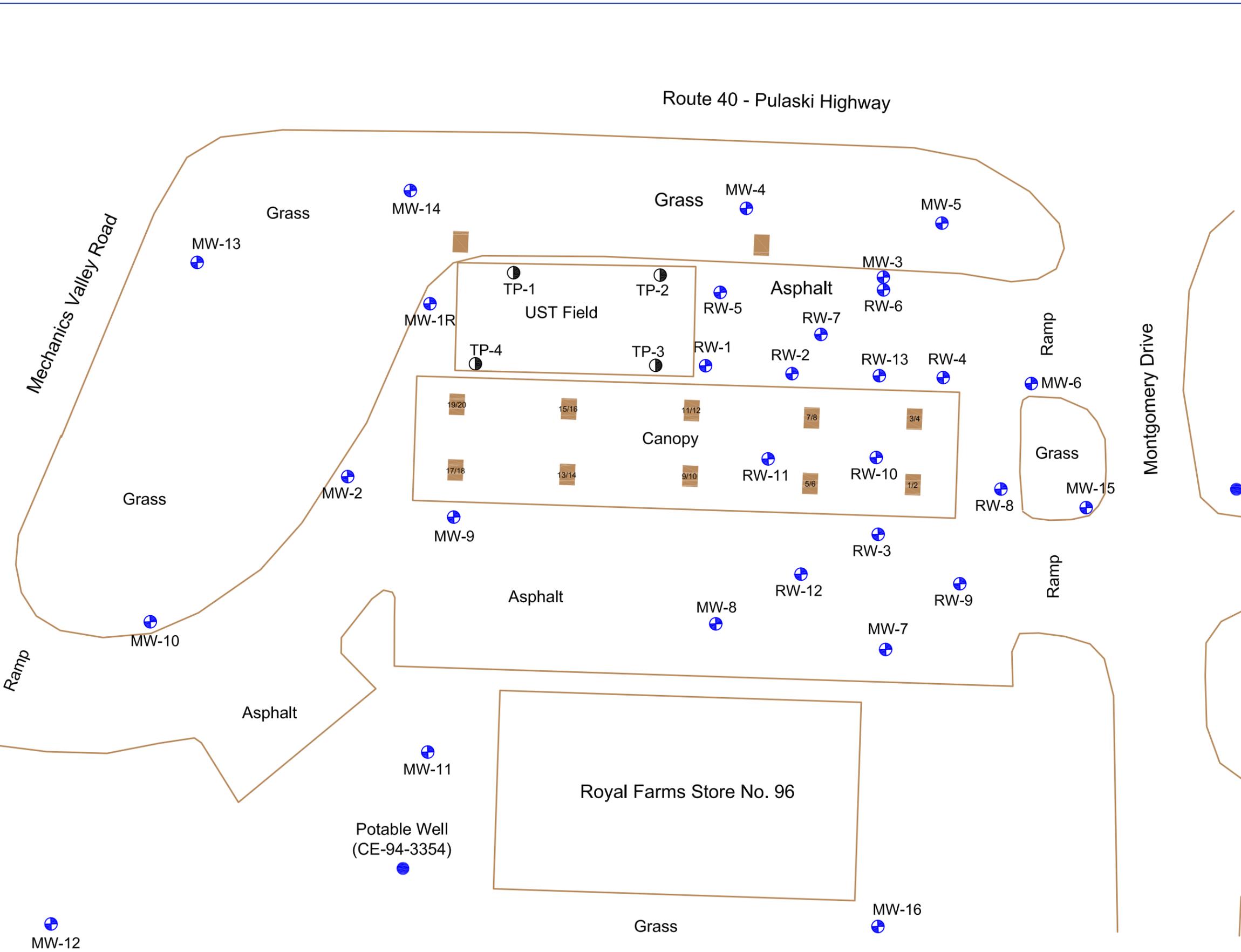
Site Features Map
Boring / Well Completion Reports
MDE Well Completion Reports

Legend

-  Fuel Dispenser
-  UST Observation Well
-  Groundwater Monitoring/Recovery Well
-  Potable Well




Scale in Feet



 Potable Well
(CE-88-0994)

Advantage Environmental Consultants, LLC
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Project No.: 05-056
 Task No.: RF96
 File: Site Features

Drawn by: JSS
 Date: 1-10-12
 Revision No.: 2

Figure 2 - Site Features Map
 Royal Farms No. 96
 500 Mechanics Valley Road
 North East, MD

Page of Page	Boring / Well Completion Report	
Boring / Well ID MW-1R	Permit Number	Permit Date
Date Work Began 10.13.11 11:45	Date Work Ended 10.13.11 17:00	AEC Project No. 05-056RF096
Address 500 Mechanics Valley Road		City / State North East, MD

Geologic Log					
Drilling Method HSA		Drilling Fluid N/A			
Boring Diameter (inches) 6.25"		Drilling Contractor CR Hugo, Inc.			
Depth from Surface		Description			
Feet	Feet	Soil Classification	PID	Sample Interval	Blow counts
0	0.5	Concrete	0		
0.5	3.5	Brown silty SAND w/ gravel, fill	0		12,6,6,6 @3.5'
3.5	4.5	Brown clayey SILT w/ sand, med. Stiffness	0		
4.5	6	Brown and gray mottled SILT w/ sand	0.5		
6	7	Brown clayey SILT w/ sand	0		
7	9.5	Purplish brown CLAY, stiff	3.1		4,4,6,7 @8.5'
9.5	12.5	White and orange striated SAND w/ clay, moist	6.2		
12.5	13.5	Orange SAND w/ silt, moist, soft	10.2		
13.5	14	Purple and gray CLAY w/ silt. med. stiffness	12.7		4,6,6,12 @13.5'
14	15.5	White SAND, soft, wet	14.7	14.5'	
15.5	16	White and orange mottled SAND w/ clay, med. stiff	9.8		
16	19	Beige CLAY w/ sand and silt, moist, soft	6.1		38,20,15, 15 @18.5
19	19.5	Purple and red CLAY, stiff	0		
19.5	20	White/gray/orange SAND and quartz GRAVEL, very stiff	0		
20	25	GRAVEL w/ beige sand and silt, wet, loose	0		38,26,20, 20 @ 23.5

Water Level of Completed Well	
First water (ft. bgs) 7.65	Date/Time Measured 10.13 15:45
Static Water (ft. bgs) 9.50	Date/Time Measured 10.18.11

Well Construction Details	
Well Diameter (inches)	4
Depth to Top of Bentonite Seal (ft. bgs)	1.5
Depth to Bottom of Bentonite Seal (ft. bgs)	2.5
Depth to Top of Sand Pack (ft. bgs)	2.5
Depth to Bottom of Sand Pack (ft. bgs)	23.4
Depth to Top of Solid Casing (ft. bgs)	0.5
Depth to Bottom of Solid Casing (ft. bgs)	3.5
Depth to Top of Screen (ft. bgs)	3.5
Depth to Bottom of Screen (ft. bgs)	23.39
Solid Casing and Screen Material	Schedule 40 PVC
Screen Slot Size	10

Boring Location Sketch

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See attached figures

Page of Page	Boring / Well Completion Report		
Boring / Well ID MW-9	Permit Number	Permit Date	
Date Work Began 10.20.11 8:15	Date Work Ended 10.20.11 13:55	AEC Project No. 05-056 RF-96	
Address 500 Mechanics Valley Road		City / State North East, MD	

Geologic Log					
Drilling Method HSA		Drilling Fluid			
Boring Diameter (inches) 6.25"		Drilling Contractor Carl Hugo			
Depth from Surface		Description			
Feet	Feet	Soil Classification	PID	Sample Interval	Blow counts
0	1	Asphalt and gravel fill	0		
1	3.5	Brown silty SAND	1.2		12,12,14, 14@3.5'
3.5	5.5	Beige and orange sandy CLAY, stiff	3.1@4 4.6@5		
5.5	6.5	Brown clayey SAND, dry	16.2	6'	
6.5	7.5	Reddish SAND w/ clay and gravel, very stiff	11.3		
7.5	9	Red clayey SAND, dry, stiff	0		8,8,9,9 @8.5'
9	9.5	Red and purple CLAY, stiff	0		
9.5	13.5	Beige mottled CLAY, stiff	0@10 1.4@11		
13.5	15	Beige and orange mottled CLAY w/ sand, stiff	1.2		7,7,9,8 @13.5'
15	17.5	Beige and orange mottled sandy CLAY	0		
17.5	18	Beige sandy CLAY, moist	0		
18	20.5	Orange SAND and quartz GRAVEL, very stiff	0		33,33,15, 10 @18.5
20.5	22	Red sandy CLAY, moist	0		
22	24	Clayey SAND, wet, loose	0		
24	25	Gray and orange striated silty CLAY, stiff	0		

Water Level of Completed Well	
First water (ft. bgs) 10.89	Date/Time Measured 10.20 12:55
Static Water (ft. bgs) 11.87	Date/Time Measured 10.16.11

Well Construction Details	
Well Diameter (inches)	4
Depth to Top of Bentonite Seal (ft. bgs)	1.5
Depth to Bottom of Bentonite Seal (ft. bgs)	2.5
Depth to Top of Sand Pack (ft. bgs)	2.5
Depth to Bottom of Sand Pack (ft. bgs)	23.6
Depth to Top of Solid Casing (ft. bgs)	0.5
Depth to Bottom of Solid Casing (ft. bgs)	3.5
Depth to Top of Screen (ft. bgs)	3.5
Depth to Bottom of Screen (ft. bgs)	23.60
Solid Casing and Screen Material	Schedule 40 PVC
Screen Slot Size	10

Boring Location Sketch

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See attached figures

Page of Page	Boring / Well Completion Report		
Boring / Well ID MW-10	Permit Number	Permit Date	
Date Work Began 10.20.11 12:46	Date Work Ended 10.24.11 11:45	AEC Project No. 05-056 RF-96	
Address 500 Mechanics Valley Road		City / State North East, MD	

Geologic Log					
Drilling Method HSA		Drilling Fluid			
Boring Diameter (inches) 6.25"		Drilling Contractor Carl Hugo			
Depth from Surface		Description			
Feet	Feet	Soil Classification	PID	Sample Interval	Blow counts
0	1	Grass, topsoil	0		
1	4	Orangish silty SAND, stiff, fill	0		50+ over 6" @3.5'
4	7	Orangish silty SAND and GRAVEL, fill	1.7		
7	8	Reddish brown silty SAND w/ clay	35	7'	
8	9.5	Orangish SAND and GRAVEL, stiff	12.3		14,11,9,7 @8.5'
9.5	10	Red, white , brown SAND w/clay and gravel, stiff	3.6		
10	12.5	White clay w/ SAND, stiff	2.1		
12.5	14.5	Red and white SAND w/ clay, stiff	6.5		6,6,6,7 @13.5'
14.5	17	White and orange mottled CLAY w/ sand, stiff	1.2		
		Drilling equipment failure :15:00 10.20.11			
		Resume 8:15 10.24.11			
18.5	23.5	Brown sandy CLAY, wet	0		50 over 6" @18.5
23.5	25	White and orange CLAY w/ sand and gravel, stiff	0		6,6,8,8 @23.5

Water Level of Completed Well	
First water (ft. bgs) 8.40	Date/Time Measured 10.24 9:45
Static Water (ft. bgs) 10.08	Date/Time Measured 10.26.11

Well Construction Details	
Well Diameter (inches)	4
Depth to Top of Bentonite Seal (ft. bgs)	2.5
Depth to Bottom of Bentonite Seal (ft. bgs)	3.5
Depth to Top of Sand Pack (ft. bgs)	3.5
Depth to Bottom of Sand Pack (ft. bgs)	24.4
Depth to Top of Solid Casing (ft. bgs)	0.5
Depth to Bottom of Solid Casing (ft. bgs)	4.4
Depth to Top of Screen (ft. bgs)	4.4
Depth to Bottom of Screen (ft. bgs)	24.40
Solid Casing and Screen Material	Schedule 40 PVC
Screen Slot Size	10

Boring Location Sketch

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See attached figures

Page of Page	Boring / Well Completion Report		
Boring / Well ID MW-11	Permit Number	Permit Date	
Date Work Began 10.24.11 11:34	Date Work Ended 10.24.11 18:20	AEC Project No. 05-056 RF-96	
Address 500 Mechanics Valley Road		City / State North East, MD	

Geologic Log					
Drilling Method HSA		Drilling Fluid			
Boring Diameter (inches) 6.25"		Drilling Contractor Carl Hugo			
Depth from Surface		Description			
Feet	Feet	Soil Classification	PID	Sample Interval	Blow counts
0	1	Grass, topsoil	0		
1	3.5	Brown clayey SAND w/ silt	0		
3.5	5	Brown and tan clayey SAND w/ gravel, stiff	0		12,12,13,14 @3.5'
5	8.5	Red silty CLAY w/ gravel	8.6		
8.5	10	Purple CLAY, very stiff	0		12,15,20,24 @8.5'
10	13	Multicolored CLAY, very stiff	0		
13	14.5	Reddish brown silty CLAY	10.3		12,15,20,24 @13.5'
14.5	15	Brown sandy CLAY w/ gravel	13.1		
15	17.5	White silty CLAY	0.5	15'	
17.5	20	White and tan clayey SAND, soft	0		12,10,10,10 @18.5
20	22	Orangish SAND, soft, loose	0		
22	24	Red and white, clayey SAND, loose	0		
24	25	Orange SAND w/ quartz gravel, very stiff	0		23,30,42,50 @23.5

Water Level of Completed Well	
First water (ft. bgs) 14.53	Date/Time Measured 10.24 17:20
Static Water (ft. bgs) 13.90	Date/Time Measured 10.26.11

Well Construction Details	
Well Diameter (inches)	4
Depth to Top of Bentonite Seal (ft. bgs)	2.5
Depth to Bottom of Bentonite Seal (ft. bgs)	3.5
Depth to Top of Sand Pack (ft. bgs)	3.5
Depth to Bottom of Sand Pack (ft. bgs)	24.4
Depth to Top of Solid Casing (ft. bgs)	0.5
Depth to Bottom of Solid Casing (ft. bgs)	4.5
Depth to Top of Screen (ft. bgs)	4.4
Depth to Bottom of Screen (ft. bgs)	24.40
Solid Casing and Screen Material	Schedule 40 PVC
Screen Slot Size	10

Boring Location Sketch

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See attached figures

Page of Page	Boring / Well Completion Report		
Boring / Well ID MW-12	Permit Number	Permit Date	
Date Work Began 10.24.11 15:30	Date Work Ended 10.25.11 13:20	AEC Project No. 05-056 RF-96	
Address 500 Mechanics Valley Road		City / State North East, MD	

Geologic Log					
Drilling Method HSA		Drilling Fluid			
Boring Diameter (inches) 6.25"		Drilling Contractor Carl Hugo			
Depth from Surface		Description			
Feet	Feet	Soil Classification	PID	Sample Interval	Blow counts
0	1	Grass, topsoil	0		
1	4	Orangish SAND w/ gravel	0		14,14,15,16 @3.5'
4	7	Tan silty SAND, loose	0		
7	8.5	Orange clayey SAND w/ gravel, stiff	0		
8.5	13	Reddish clayey SAND w/ gravel	0	12'	14,12,12,14 @8.5'
13	17	White, red, and tan mottled CLAY, med. stiff	0		5,6,6,6 @13.5'
17	18	Beige silty CLAY	0		
18	20	Beige and orange silty clay, soft, moist	0		4,4,3,4 @18.5'
20	23	Red and white silty CLAY, soft	0		
23	24	Black and gray SAND and GRAVEL (organic)	0		32,20,8,6 @23.5
24	25	Orange SAND w/ quartz gravel	0		

Water Level of Completed Well	
First water (ft. bgs) 11.74	Date/Time Measured 10.25 12:20
Static Water (ft. bgs) 11.23	Date/Time Measured 10.26.11

Well Construction Details	
Well Diameter (inches)	4
Depth to Top of Bentonite Seal (ft. bgs)	2.5
Depth to Bottom of Bentonite Seal (ft. bgs)	3.5
Depth to Top of Sand Pack (ft. bgs)	3.5
Depth to Bottom of Sand Pack (ft. bgs)	24.9
Depth to Top of Solid Casing (ft. bgs)	0.5
Depth to Bottom of Solid Casing (ft. bgs)	4.9
Depth to Top of Screen (ft. bgs)	4.9
Depth to Bottom of Screen (ft. bgs)	24.91
Solid Casing and Screen Material	Schedule 40 PVC
Screen Slot Size	10

Boring Location Sketch

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See attached figures

Page of Page	Boring / Well Completion Report		
Boring / Well ID MW-13	Permit Number	Permit Date	
Date Work Began 10.25.11 12:00	Date Work Ended 10.25.11 17:50	AEC Project No. 05-056 RF-96	
Address 500 Mechanics Valley Road		City / State North East, MD	

Geologic Log					
Drilling Method HSA		Drilling Fluid			
Boring Diameter (inches) 6.25"		Drilling Contractor Carl Hugo			
Depth from Surface		Description			
Feet	Feet	Soil Classification	PID	Sample Interval	Blow counts
0	1	Grass, topsoil	0		
1	2	Reddish brown silty SAND w/ gravel	0		7,8,12,18 @3.5'
2	5	Brown silty SAND	0@3 3.0@4		
5	10	Brown and gray SAND w/ clay and gravel	1.2@5.5 2.5@8		
10	11	Red and white mottled CLAY	3.1		
11	13.5	Beige silty CLAY, soft	3.2	11'	
13.5	15.5	Orange SAND and GRAVEL, wet, very stiff	2.0		20,12,14, 18 @13.5'
15.5	19.5	Red and beige silty CLAY	0		8,5,4,4 @18.5'
19.5	23.5	Beige and orange mottled CLAY w/ gravel	1.0		
23.5	25	Beige and orange striated clayey SILT, loose	0.3		

Water Level of Completed Well	
First water (ft. bgs) 7.09	Date/Time Measured 10.25 16:50
Static Water (ft. bgs) 7.00	Date/Time Measured 10.26.11

Well Construction Details	
Well Diameter (inches)	4
Depth to Top of Bentonite Seal (ft. bgs)	3
Depth to Bottom of Bentonite Seal (ft. bgs)	4
Depth to Top of Sand Pack (ft. bgs)	4
Depth to Bottom of Sand Pack (ft. bgs)	25
Depth to Top of Solid Casing (ft. bgs)	0.5
Depth to Bottom of Solid Casing (ft. bgs)	5
Depth to Top of Screen (ft. bgs)	5
Depth to Bottom of Screen (ft. bgs)	25.08
Solid Casing and Screen Material	Schedule 40 PVC
Screen Slot Size	10

Boring Location Sketch

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See attached figures

Page of Page	Boring / Well Completion Report		
Boring / Well ID MW-16	Permit Number	Permit Date	
Date Work Began 10.27.11 15:40	Date Work Ended 10.27.11 21:20	AEC Project No. 05-056 RF-96	
Address 500 Mechanics Valley Road		City / State North East, MD	

Geologic Log					
Drilling Method HSA		Drilling Fluid			
Boring Diameter (inches) 6.25"		Drilling Contractor Carl Hugo			
Depth from Surface		Description			
Feet	Feet	Soil Classification	PID	Sample Interval	Blow counts
0	1	Grass, topsoil	0		
1	3	Brown silty SAND	0.1		
3	4	Orange coarse SAND w/ clay, very stiff	4.1		16,15,11, 11 @3.5'
4	6	Tan SAND w/ clay, stiff	2.2		
6	7	Beige CLAY w/ silt	2.0		
7	10	Beige clayey SAND	2.2		9,9,9,9 @8.5'
10	12	Multicolored silty SAND, loose	4.8	10'	
12	14	Tan clayey SAND	1.3		6,6,6,6 @13.5'
14	15	Red and tan CLAY w/ sand, soft	0		
15	17	Orange running SANDs	0		
17	21	Purple and white mottled CLAY, stiff	4.3		12,10,8,8 @18.5'
21	22	Tan sandy CLAY w/ gravel	0		
22	24	Multicolored CLAY, stiff	0		24,26,50+ @23.5
24	25	Orange SAND and quartz gravel, very stiff	0		

Water Level of Completed Well	
First water (ft. bgs) 7.24	Date/Time Measured 10.27 20:30
Static Water (ft. bgs) 7.01	Date/Time Measured 10.30.11

Well Construction Details	
Well Diameter (inches)	4
Depth to Top of Bentonite Seal (ft. bgs)	1.5
Depth to Bottom of Bentonite Seal (ft. bgs)	2.5
Depth to Top of Sand Pack (ft. bgs)	2.5
Depth to Bottom of Sand Pack (ft. bgs)	23.4
Depth to Top of Solid Casing (ft. bgs)	0.5
Depth to Bottom of Solid Casing (ft. bgs)	3.5
Depth to Top of Screen (ft. bgs)	3.5
Depth to Bottom of Screen (ft. bgs)	23.45
Solid Casing and Screen Material	Schedule 40 PVC
Screen Slot Size	10

Boring Location Sketch

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See attached figures

Page of Page	Boring / Well Completion Report		
Boring / Well ID RW-7	Permit Number	Permit Date	
Date Work Began 10.13.11 8:25	Date Work Ended 10.13.11 12:30	AEC Project No. 05-056 RF-96	
Address 500 Mechanics Valley Road		City / State North East, MD	

Geologic Log					
Drilling Method HSA		Drilling Fluid			
Boring Diameter (inches) 6.25"		Drilling Contractor Carl Hugo			
Depth from Surface		Description			
Feet	Feet	Soil Classification	PID	Sample Interval	Blow counts
0	1.5	Asphalt/gravel fill	0		
1.5	3.5	Tan silty SAND w/ clay	0		
3.5	4.5	Beige SAND w/ clay	0		5,5,6,8 @3.5'
4.5	5	Orangish SAND	0		
5	5.5	Beige CLAY, stiff	0		
5.5	8	Beige and gray CLAY	0		
8	9	Beige CLAY w/ silt	2.8		9,7,6,6 @8.5'
9	10.5	White/orange mottled SAND w/ clay, med stiff	17.1		
10.5	12	Orangish SAND	95.5		
12	14.5	Orangish beige CLAY w/ sand, moist	252	13'	6,4,3,4 @13.5'
14.5	16	Beige CLAY w/ silt, loose	101		
16	18.5	Beige clayey SILT, loose	60		
18.5	20	Tan CLAY	61		12,8,8,8 @18.5'
20	21	Orangish SAND and gravel, loose, wet	0		
21	23	Beige SAND w/ clay, loose, moist	0		
23	24	Purple/gray CLAY, very dense	0		13,12,7,7 @23.5'
24	25	Orange and gray striated SILT	0		

Water Level of Completed Well	
First water (ft. bgs) 13.25	Date/Time Measured 10.13 10:45
Static Water (ft. bgs) 12.64	Date/Time Measured 10.16.11

Well Construction Details	
Well Diameter (inches)	4
Depth to Top of Bentonite Seal (ft. bgs)	3
Depth to Bottom of Bentonite Seal (ft. bgs)	4
Depth to Top of Sand Pack (ft. bgs)	4
Depth to Bottom of Sand Pack (ft. bgs)	25.2
Depth to Top of Solid Casing (ft. bgs)	0.5
Depth to Bottom of Solid Casing (ft. bgs)	5
Depth to Top of Screen (ft. bgs)	5
Depth to Bottom of Screen (ft. bgs)	25.28
Solid Casing and Screen Material	Schedule 40 PVC
Screen Slot Size	10

Boring Location Sketch

See attached figures

Page of Page	Boring / Well Completion Report		
Boring / Well ID RW-8	Permit Number	Permit Date	
Date Work Began 10.13.11 16:00	Date Work Ended 10.13.11 20:55	AEC Project No. 05-056 RF-96	
Address 500 Mechanics Valley Road		City / State North East, MD	

Geologic Log					
Drilling Method HSA		Drilling Fluid			
Boring Diameter (inches) 6.25"		Drilling Contractor Carl Hugo			
Depth from Surface		Description			
Feet	Feet	Soil Classification	PID	Sample Interval	Blow counts
0	1	Asphalt/gravel fill	0		
1	2	Sandy gravel	0		
2	3.5	Brown silty SAND, med. stiffness	0		
3.5	4.5	Purple/gray SILT w/ clay, med. stiffness	0		12,12,11, 11 @3.5'
4.5	8.5	Beige sandy SILT, soft	0.3		
8.5	9.5	Beige silty SAND, med. stiffness	0		5,5,4,4 @8.5'
9.5	10	Brown silty SAND, stiff	0		
10	13	Orange SAND w/ silt, wet, soft	0		
13	15	Orange SAND w/ clay, wet, stiff	0	13.5'	14,12,8,7 @13.5'
15	17	Purple and gray mottled CLAY, very stiff	0		
17	18.5	Orange SAND w/ silt, wet	0		
18.5	19.5	Purple and gray mottled CLAY, very stiff	0		
19.5	23	Purple, tan, orange, mottled CLAY w/ sand. med. Stiffness	0		
23	23.5	Purple/gray CLAY, very stiff, wet	0		
23.5	25	White SAND and GRAVEL w/ clay, very stiff	0		40,35,35, 30 @23.5'

Water Level of Completed Well	
First water (ft. bgs) 9.82	Date/Time Measured 10.13 19:32
Static Water (ft. bgs) 14.45	Date/Time Measured 10.16.11

Well Construction Details	
Well Diameter (inches)	4
Depth to Top of Bentonite Seal (ft. bgs)	2
Depth to Bottom of Bentonite Seal (ft. bgs)	3
Depth to Top of Sand Pack (ft. bgs)	3
Depth to Bottom of Sand Pack (ft. bgs)	24.3
Depth to Top of Solid Casing (ft. bgs)	0.5
Depth to Bottom of Solid Casing (ft. bgs)	4.3
Depth to Top of Screen (ft. bgs)	4.3
Depth to Bottom of Screen (ft. bgs)	24.34
Solid Casing and Screen Material	Schedule 40 PVC
Screen Slot Size	10

Boring Location Sketch

See attached figures

Page of Page	Boring / Well Completion Report		
Boring / Well ID RW-9	Permit Number	Permit Date	
Date Work Began 10.14.11 11:35	Date Work Ended 10.14.11 16:50	AEC Project No. 05-056 RF-96	
Address 500 Mechanics Valley Road		City / State North East, MD	

Geologic Log					
Drilling Method HSA		Drilling Fluid			
Boring Diameter (inches) 6.25"		Drilling Contractor Carl Hugo			
Depth from Surface		Description			
Feet	Feet	Soil Classification	PID	Sample Interval	Blow counts
0	1	Asphalt/gravel fill	0		
1	3.5	Brown silty SAND w/ clay	0		
3.5	5.5	Orangish brown silty SAND, moist	0		
5.5	8	Brown silty SAND w/ clay, stiff	0		
8	10	Brown SAND w/ clay	0		6,5,5,5 @8.5'
10	13	Beige and orange mottled CLAY w/ sand, stiff	0		
13	14	Orange and tan mottled CLAY w/ sand, stiff	0		4,4,8,8 @13.5'
14	15	Multicolored CLAY w/ sand, stiff	0		
15	18.5	Red, white, and purple mottled CLAY w/ sand	0	13.5'	
18.5	19	Red and purple CLAY, very stiff	0		6,6,7,10 @18.5'
19	20	White CLAY w/ sand, stiff	0		
20	23	Tan and orange mottled CLAY w/ sand, med. stiffness	0		
23	25	Multicolored CLAY, very stiff	0		50 over 6" @23.5'

Water Level of Completed Well	
First water (ft. bgs) 7.64	Date/Time Measured 10.14 16:00
Static Water (ft. bgs) 6.82	Date/Time Measured 10.16.11

Well Construction Details	
Well Diameter (inches)	4
Depth to Top of Bentonite Seal (ft. bgs)	1
Depth to Bottom of Bentonite Seal (ft. bgs)	1
Depth to Top of Sand Pack (ft. bgs)	2
Depth to Bottom of Sand Pack (ft. bgs)	22.5
Depth to Top of Solid Casing (ft. bgs)	0.5
Depth to Bottom of Solid Casing (ft. bgs)	2.5
Depth to Top of Screen (ft. bgs)	2.5
Depth to Bottom of Screen (ft. bgs)	22.51
Solid Casing and Screen Material	Schedule 40 PVC
Screen Slot Size	10

Boring Location Sketch

See attached figures

Page of Page	Boring / Well Completion Report		
Boring / Well ID RW-10	Permit Number	Permit Date	
Date Work Began 10.17.11 17:35	Date Work Ended 10.14.11 16:50	AEC Project No. 05-056 RF-96	
Address 500 Mechanics Valley Road		City / State North East, MD	

Geologic Log					
Drilling Method HSA		Drilling Fluid			
Boring Diameter (inches) 6.25"		Drilling Contractor Carl Hugo			
Depth from Surface		Description			
Feet	Feet	Soil Classification	PID	Sample Interval	Blow counts
0	0.5	Concrete	0		No split spoons
0.5	1	Gravel fill	16.2		
1	2	Brown silty SAND	28.7		
2	3.5	Tan silty SAND	16.7		
3.5	5.5	Brown silty SAND, med. Stiff	211		
5.5	8	Tan silty SAND w/ clay	869	6'	
8	9	Brown sandy CLAY w/ silt	649		
9	10	Tan silty CLAY	193		
10	15	Red CLAY w/ silt and sand, stiff	93@11 180@13 234@14		
15	16.5	Red and white silty CLAY	170		
16.5	18	Tan CLAY w/ sand and silt w/ gravel, moist	74.1		
18	20	Tan sandy CLAY w/ gravel, moist	63.2		
20	23	Brown silty CLAY w/ gravel, stiff	25.4		
23	25	GRAVEL/ROCK w/ red clay and tan sand, very stiff	9.2		

Water Level of Completed Well	
First water (ft. bgs)	Date/Time Measured
Static Water (ft. bgs) 12.6	Date/Time Measured 10.19.11

Well Construction Details	
Well Diameter (inches)	4
Depth to Top of Bentonite Seal (ft. bgs)	.5
Depth to Bottom of Bentonite Seal (ft. bgs)	1.5
Depth to Top of Sand Pack (ft. bgs)	1.5
Depth to Bottom of Sand Pack (ft. bgs)	25
Depth to Top of Solid Casing (ft. bgs)	0.5
Depth to Bottom of Solid Casing (ft. bgs)	5
Depth to Top of Screen (ft. bgs)	5
Depth to Bottom of Screen (ft. bgs)	25
Solid Casing and Screen Material	Schedule 40 PVC
Screen Slot Size	10

Boring Location Sketch

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See attached figures

Page	of Page	Boring / Well Completion Report		
Boring / Well ID	RW-11	Permit Number	Permit Date	
Date Work Began	10.18.11 0:30	Date Work Ended	10.18.11 6:30	AEC Project No. 05-056 RF-96
Address 500 Mechanics Valley Road		City / State North East, MD		

Geologic Log					
Drilling Method		HSA			
Drilling Fluid					
Boring Diameter (inches)		6.25"			
Drilling Contractor		Carl Hugo			
Depth from Surface		Description			
Feet	Feet	Soil Classification	PID	Sample Interval	Blow counts
0	0.5	Asphalt/gravel fill	0		No split spoons
0.5	1	Brown silty SAND w/ clay	10.1		
1	2	Orangish brown silty SAND, moist	9.5		
2	5	Brown silty SAND w/ clay, stiff	8.9		
5	8	Brown SAND w/ clay	1078		
8	9	Beige and orange mottled CLAY w/ sand, stiff	1690	8'	
9	12.5	Orange and tan mottled clay w/ sand, stiff	401@9 294@11.5 35.5@12.5		
12.5	14	Multicolored CLAY w/ sand, stiff	35.5		
14	18	Red, white, and purple mottled CLAY w/ sand	32@15 73@17		
18	22	Red and purple CLAY, very stiff	32@18 45.1@21		
22	25	White CLAY w/ sand, stiff	24		

Water Level of Completed Well	
First water (ft. bgs)	10.92
Date/Time Measured	10.18 5:43
Static Water (ft. bgs)	11.17
Date/Time Measured	10.19.11

Well Construction Details	
Well Diameter (inches)	4
Depth to Top of Bentonite Seal (ft. bgs)	1.5
Depth to Bottom of Bentonite Seal (ft. bgs)	2.5
Depth to Top of Sand Pack (ft. bgs)	2.5
Depth to Bottom of Sand Pack (ft. bgs)	23.4
Depth to Top of Solid Casing (ft. bgs)	0.5
Depth to Bottom of Solid Casing (ft. bgs)	3.5
Depth to Top of Screen (ft. bgs)	3.5
Depth to Bottom of Screen (ft. bgs)	23.46
Solid Casing and Screen Material	Schedule 40 PVC
Screen Slot Size	10

Boring Location Sketch

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See attached figures

Page of Page	Boring / Well Completion Report		
Boring / Well ID RW-12	Permit Number	Permit Date	
Date Work Began 10.19.11	Date Work Ended 10.19.11 18:45	AEC Project No. 05-056 RF-96	
Address 500 Mechanics Valley Road		City / State North East, MD	

Geologic Log					
Drilling Method HSA		Drilling Fluid			
Boring Diameter (inches) 6.25"		Drilling Contractor Carl Hugo			
Depth from Surface		Description			
Feet	Feet	Soil Classification	PID	Sample Interval	Blow counts
0	1	Asphalt/gravel fill	0		
1	3.5	Brown silty SAND	0		
3.5	4.5	Red and beige CLAY w/ sand, soft	22		10,10,11, 11 @3.5'
4.5	6.5	Purple and red CLAY, stiff	27		
6.5	9	Tan SAND w/ clay, stiff	21		10,8,5,4 @8.5'
9	10.5	Beige and red CLAY, very stiff	25		
10.5	13.5	Tan SAND w/ clay, wet, soft	32	11'	
13.5	14.5	Multicolored CLAY, stiff	0		4,5,6,6 @13.5'
14.5	16	Beige CLAY, stiff	0		
16	18.5	Reddish CLAY and SAND	0		
18.5	19.5	Beige CLAY w/ sand, stiff	0		8,10,10 @18.5'
19.5	20.5	Beige SAND w/ clay	0		
20.5	23	Reddish CLAY w/ sand	0		
23	25	Orange sandy CLAY w/ gravel, very stiff	0		50 over 5" @23.5'

Water Level of Completed Well	
First water (ft. bgs) 9.12	Date/Time Measured 10.19 17:50
Static Water (ft. bgs) 11.19	Date/Time Measured 10.20.11

Well Construction Details	
Well Diameter (inches)	4
Depth to Top of Bentonite Seal (ft. bgs)	1.5
Depth to Bottom of Bentonite Seal (ft. bgs)	2.5
Depth to Top of Sand Pack (ft. bgs)	2.5
Depth to Bottom of Sand Pack (ft. bgs)	23.5
Depth to Top of Solid Casing (ft. bgs)	0.5
Depth to Bottom of Solid Casing (ft. bgs)	3.5
Depth to Top of Screen (ft. bgs)	3.5
Depth to Bottom of Screen (ft. bgs)	23.45
Solid Casing and Screen Material	Schedule 40 PVC
Screen Slot Size	10

Boring Location Sketch

See attached figures

Page	of Page	Boring / Well Completion Report		
Boring / Well ID	RW-13	Permit Number	Permit Date	
Date Work Began	10.27.11 10:30	Date Work Ended	10.27.11 16:00	AEC Project No. 05-056 RF-96
Address 500 Mechanics Valley Road		City / State North East, MD		

Geologic Log					
Drilling Method		HSA			
Drilling Fluid					
Boring Diameter (inches)		6.25"			
Drilling Contractor		Carl Hugo			
Depth from Surface		Description			
Feet	Feet	Soil Classification	PID	Sample Interval	Blow counts
0	1	Asphalt/gravel fill	0		
1	4.5	Brown silty SAND	0.7		10,14 @3.5'
4.5	7	Tan silty SAND w/ clay , stiff	78		
7	8.5	Beige sandy CLAY	350		
8.5	12.5	Beige and orange mottled silty CLAY	145		7,7,6 @8.5'
12.5	13.5	Tan sandy CLAY, moist	566	12.5'	
13.5	14	Red and beige mottled CLAY	190		4,4,4 @13.5'
14	16.5	White and orange mottled sandy CLAY, soft	17.4		
16.5	18.5	Tan clayey SAND, wet, loose	9.6		
18.5	20	White and orange SAND w/clay, wet, loose	90.4		4,5,5 @18.5'
20	23	Red and tan sandy CLAY	159		
23	24.5	Tan SAND	362		8,8,8 @23.5
24.5	26	Quartz gravel w/ orange SAND	190		
26	30	Tan running SANDs	42.9		18,12,12, 11 @ 26

Water Level of Completed Well	
First water (ft. bgs)	12.91
Date/Time Measured	10.27 15:03
Static Water (ft. bgs)	12.90
Date/Time Measured	10.28.11

Well Construction Details	
Well Diameter (inches)	4
Depth to Top of Bentonite Seal (ft. bgs)	3
Depth to Bottom of Bentonite Seal (ft. bgs)	4
Depth to Top of Sand Pack (ft. bgs)	4
Depth to Bottom of Sand Pack (ft. bgs)	25
Depth to Top of Solid Casing (ft. bgs)	0.5
Depth to Bottom of Solid Casing (ft. bgs)	4.9
Depth to Top of Screen (ft. bgs)	4.9
Depth to Bottom of Screen (ft. bgs)	24.89
Solid Casing and Screen Material	Schedule 40 PVC
Screen Slot Size	10

Boring Location Sketch

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See attached figures

C 1	1719	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
1 2 3 4 5 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)				
ST/CO USE ONLY DATE Received MM DD YY 8 13		DATE WELL COMPLETED MM DD YY 10 20	Depth of Well 22 25 26 (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" CE - 10 - 0138 28 29 30 31 32 33 34 35 36 37

OWNER Royal Farms
 WELL SITE ADDRESS 500 Mechanics Valley Rd TOWN North East
 SUBDIVISION _____ SECTION _____ LOT _____

WELL LOG		
Not required for driven wells		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		
DESCRIPTION (Use additional sheets if needed)	FEET	check if water bearing
	FROM TO	
Asphalt Road	0 1.5	
Brown Silty Sand	1.5 3.5	
Brown Clayey Silt w/ sand	3.5 6.0	
Purplish Brown stiff clay	6.0 7.0	
White & Orange stratified sand w/ clay	7.0 13.5	
Purplish clay	13.5 15.5	✓
Clay w/ sand	15.5 20	✓
White sand	20 25	
Purplish clay	20 25	
White fine orange sand w/ gravel	20 25	

GROUTING RECORD	
WELL HAS BEEN GROUTED (Circle Appropriate Box) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
TYPE OF GROUTING MATERIAL (Circle one) CEMENT <input checked="" type="checkbox"/> BENTONITE CLAY <input checked="" type="checkbox"/>	
CEMENT NO. OF BAGS <u>5</u>	BENTONITE CLAY NO. OF POUNDS <u>35</u>
GALLONS OF WATER <u>5</u>	
DEPTH OF GROUT SEAL (to nearest foot) from <u>01</u> ft. to <u>03</u> ft. <small>(enter 0 if from surface)</small>	

CASING RECORD	
casing types insert appropriate code below	
<input checked="" type="checkbox"/> ST STEEL	<input type="checkbox"/> CO CONCRETE
<input checked="" type="checkbox"/> PL PLASTIC	<input type="checkbox"/> OT OTHER
MAIN CASING TYPE <u>PL</u>	OTHER CASING (if used)
Nominal diameter top (main) casing (nearest inch) <u>04</u>	diameter inch
Total depth of main casing (nearest foot) <u>05</u>	depth (feet) from to

SCREEN RECORD	
screen type or open hole insert appropriate code below	
<input checked="" type="checkbox"/> ST STEEL	<input checked="" type="checkbox"/> BR BRASS
<input checked="" type="checkbox"/> PL PLASTIC	<input type="checkbox"/> HO OPEN HOLE
<input type="checkbox"/> OT OTHER	

DEPTH (nearest ft.)	
1 <u>PL</u> 25 05 2 8 9 11 15 17 21 3 23 24 26 30 32 36 4 38 39 41 45 47 51 5 SLOT SIZE 1 <u>0</u> 2 <u>2</u> 3 <u>0</u> 6 DIAMETER OF SCREEN <u>04</u> (NEAREST INCH) from <u>25</u> to <u>03</u>	

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES NO

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. 1 M 6 D 0 5 1
 DRILLERS SIGNATURE Carl R. King
 (MUST MATCH SIGNATURE ON APPLICATION)
 LIC. NO. 1 M 6 D 0 5 1

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)
 T (E.R.O.S.) W Q

70 _____ 72 _____ 74 75 76
 TELESCOPE CASING LOG INDICATOR OTHER DATA

PUMPING TEST	
Recovery well PUMPING TEST <u>No Test</u>	
HOURS PUMPED (nearest hour)	8 9
PUMPING RATE (gal. per min.)	11 15
METHOD USED TO MEASURE PUMPING RATE _____	
WATER LEVEL (distance from land surface)	
BEFORE PUMPING	17 20 ft.
WHEN PUMPING	22 25 ft.
TYPE OF PUMP USED (for test)	
<input checked="" type="checkbox"/> A air	<input type="checkbox"/> P piston
<input type="checkbox"/> C centrifugal	<input type="checkbox"/> R rotary
<input type="checkbox"/> J jet	<input type="checkbox"/> S submersible
<input type="checkbox"/> T turbine	<input type="checkbox"/> O other (describe below)

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES OR NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29 29

CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height)

above } LAND SURFACE 01 (nearest foot)
 below } 50/51

LATITUDE 39.612625
 LONGITUDE 75.934669
 (DEFAULT COORD. WGS 84)

NOTES:

C 1	1708	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)				
ST/CO USE ONLY DATE RECEIVED MM DD YY 8 13		DATE WELL COMPLETED MM DD YY 10 13 11		DEPTH OF WELL 22 25 26 (TO NEAREST FOOT)
				PERMIT NO. FROM "PERMIT TO DRILL WELL" CE - 10 - 0127 28 29 30 31 32 33 34 35 36 37

OWNER: Royal Farms
 WELL SITE ADDRESS: 500 Mechanics Valley Rd TOWN: North East
 SUBDIVISION: _____ SECTION: _____ LOT: _____

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Asphalt	0	1	
Sandy Gravel	1	2	
Brown Silty Sand	2	3.5	
Purple/Gray Silty Clay	3.5	8.5	
Brown Silty Sand	8.5	15	✓
Purple/Gray Mottled Clay	15	23	
Dense Purple Clay w/ white sand	23	25	

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle appropriate box) YES NO

TYPE OF GROUTING MATERIAL (Circle one) CEMENT BENTONITE CLAY

CEMENT BENTONITE CLAY

NO. OF BAGS 45 NO. OF POUNDS 25

GALLONS OF WATER 15

DEPTH OF GROUT SEAL (to nearest foot)
 from 1 ft. to 3 ft.
 48 TOP 52 ft. to 54 BOTTOM 58

CASING RECORD

casing types insert appropriate code below

ST STEEL CO CONCRETE
 PL PLASTIC OT OTHER

MAIN CASING TYPE PL Nominal diameter top (main) casing (nearest inch) 04 Total depth of main casing (nearest foot) 05
 60 61 63 64 66 70

OTHER CASING (if used)

diameter inch _____ depth (feet) from _____ to _____

E A C H S R E E N

SCREEN RECORD

screen type or open hole insert appropriate code below

ST STEEL BR BRASS HO OPEN HOLE
 PL PLASTIC OT OTHER

C 2 DEPTH (nearest ft.)

T 1 PL 25 05

E 1 8 9 11 15 17 21

A 2 23 24 26 30 32 36

H 3 38 39 41 45 47 51

S R E E N

SLOT SIZE 1 0 2 2 3 0

DIAMETER OF SCREEN 04 (NEAREST INCH)
 56 60

from 25 to 03

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

70 72 74 75 76

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3 Recovery Well
PUMPING TEST No Test

HOURS PUMPED (nearest hour) 8 9

PUMPING RATE (gal. per min.) 11 15

METHOD USED TO MEASURE PUMPING RATE _____

WATER LEVEL (distance from land surface)

BEFORE PUMPING 17 20 ft.

WHEN PUMPING 22 25 ft.

TYPE OF PUMP USED (for test)

A air P piston T turbine
 C centrifugal R rotary O other (describe below)
 J jet S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29 29

CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height)

+ above } LAND SURFACE 01 (nearest foot)
 - below }

LATITUDE 39.612625
 LONGITUDE 75.934669
 (DEFAULT COORD. WGS 84)

NOTES:

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES NO

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLER'S LIC. NO. 1 MBD051
Carl R. Long
 DRILLER'S SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)
 LIC. NO. 1 MBD051

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

C1	1712	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
(THIS NUMBER IS TO BE PUNCHED IN COLUMNS 3-6 ON ALL CARDS)			FILL IN THIS FORM COMPLETELY PLEASE TYPE	COUNTY <u>Royal Farms Grdwtr</u> NUMBER <u>Invest.-File</u>

ST/CO USE ONLY DATE RECEIVED MM DD YY <u>8 13</u>	DATE WELL COMPLETED MM DD YY <u>10 13 11</u>	Depth of Well <u>22 25</u> (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" <u>CE - 10 - 0131</u>
--	--	--	--

OWNER Royal Farms
 WELL SITE ADDRESS 500 Mechanics Valley Rd. TOWN North East
 SUBDIVISION _____ SECTION _____ LOT _____

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Asphalt	0	1.5	
Lt Brn Silty Sand & Clay	1.5	3.5	
Brn Clayey S.H	3.5	8.0	
Orange Sand	8.0	14	✓
Lt. Brn - Orange Sand & Silty Clay	14	25	

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL (Circle one)
 CEMENT **CM** BENTONITE CLAY **BC**

NO. OF BAGS 5 NO. OF POUNDS 5
 GALLONS OF WATER 5

DEPTH OF GROUT SEAL (to nearest foot)
 from 1 ft. to 3 ft.
 48 TOP 52 54 BOTTOM 58
 (enter 0 if from surface)

CASING RECORD
 casing types insert appropriate code below

<input checked="" type="checkbox"/> ST STEEL	<input type="checkbox"/> CO CONCRETE
<input checked="" type="checkbox"/> PL PLASTIC	<input type="checkbox"/> OT OTHER

MAIN CASING TYPE PL Nominal diameter top (main) casing (nearest inch) 04 Total depth of main casing (nearest foot) 05
 60 61 63 64 66 70

OTHER CASING (if used)
 diameter inch _____ depth (feet) from _____ to _____

SCREEN RECORD
 screen type or open hole insert appropriate code below

<input checked="" type="checkbox"/> ST STEEL	<input checked="" type="checkbox"/> BR BRASS	<input type="checkbox"/> HO OPEN HOLE
<input type="checkbox"/> PL PLASTIC	<input type="checkbox"/> OT OTHER	

C2 DEPTH (nearest ft.)
25 05

E 1	8	9	11	15	17	21
A 2	23	24	26	30	32	36
S 3	38	39	41	45	47	51

SLOT SIZE 1 _____ 2 _____ 3 _____
 DIAMETER OF SCREEN 04 (NEAREST INCH)
 56 60
 from 25 to 03

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 _____

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)
 T _____ (E.R.O.S.) W Q _____

70 _____ 72 _____ 74 75 76 _____
 TELESCOPE CASING LOG INDICATOR OTHER DATA

C3 No Pump Test
 PUMPING TEST Recovery

HOURS PUMPED (nearest hour) _____

PUMPING RATE (gal. per min.) _____

METHOD USED TO MEASURE PUMPING RATE _____

WATER LEVEL (distance from land surface)
 BEFORE PUMPING 17 ft. 20
 WHEN PUMPING 22 ft. 25

TYPE OF PUMP USED (for test)
 A air **P** piston **T** turbine
 C centrifugal **R** rotary **O** other (describe below)
 J jet **S** submersible

PUMP INSTALLED
 DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED IN BOX 29. _____

CAPACITY: GALLONS PER MINUTE (to nearest gallon) _____

PUMP HORSE POWER _____

PUMP COLUMN LENGTH (nearest ft.) _____

CASING HEIGHT (circle appropriate box and enter casing height)
 above } LAND SURFACE
 below } 01 (nearest foot)
 49 50 51

LATITUDE 39° 36' 45.45" N
 LONGITUDE 75° 56' 04.84" W
 (DEFAULT COORD. WGS 84)

NOTES:

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED Y N

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS Lic. No. M6D 051
 DRILLERS SIGNATURE Carl R. 94
 (MUST MATCH SIGNATURE ON APPLICATION)
 LIC. NO. M6D 051

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

C 1	1718	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED. COUNTY <u>Royal Farms Grdwtr</u> NUMBER <u>Invest.-File</u>
1 2 3 4 5 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)		DATE WELL COMPLETED <u>70</u> <u>14</u> <u>11</u>	Depth of Well <u>22</u> <u>25</u> <u>26</u> (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" <u>CE-10</u> <u>0137</u>
ST/CO USE ONLY DATE RECEIVED MM DD YY <u>8</u> <u>13</u>				28 29 30 31 32 33 34 35 36 37
OWNER <u>Royal Farms</u> WELL SITE ADDRESS <u>500 Mechanics Valley Rd</u> TOWN <u>North East</u> SUBDIVISION _____ SECTION _____ LOT _____				
WELL LOG Not required for driven wells		GROUTING RECORD		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		WELL HAS BEEN GROUTED (Circle Appropriate Box) <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		
DESCRIPTION (Use additional sheets if needed)	FEET FROM TO	check if water bearing	TYPE OF GROUTING MATERIAL (Circle one) CEMENT <input checked="" type="checkbox"/> CM BENTONITE CLAY <input checked="" type="checkbox"/> BC	
<u>Asphalt/Gravel</u>	<u>0</u> <u>1</u>		NO. OF BAGS <u>15</u> NO. OF POUNDS <u>25</u> GALLONS OF WATER <u>3</u>	
<u>Brn Silty Sand</u>	<u>1</u> <u>3.5</u>		DEPTH OF GROUT SEAL (to nearest foot) from <u>0</u> ft. to <u>03</u> ft. (enter 0 if from surface)	
<u>Orange/Brn Silty Sand</u>	<u>3.5</u> <u>5.5</u>		CASING RECORD	
<u>Brn Silty Sand w/ clay</u>	<u>5.5</u> <u>8.0</u>		casing types insert appropriate code below <input checked="" type="checkbox"/> ST <input type="checkbox"/> CO <input checked="" type="checkbox"/> PL <input type="checkbox"/> OT STEEL CONCRETE PLASTIC OTHER	
<u>Brn & Orange Mottled clay</u>	<u>8.0</u> <u>13</u>		MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot) <u>PL</u> <u>04</u> <u>05</u> 60 61 63 64 66 70	
<u>Orange & Brn Mottled clay w/ sandy silt</u>	<u>13</u> <u>15</u>	<input checked="" type="checkbox"/>	OTHER CASING (if used) diameter inch depth (feet) from to	
<u>Red, white, purple mottled clay</u>	<u>15</u> <u>20</u>		SCREEN RECORD	
<u>Tan & Orange mottled clay</u>	<u>20</u> <u>25</u>		screen type or open hole insert appropriate code below <input checked="" type="checkbox"/> ST <input type="checkbox"/> BR <input type="checkbox"/> HO <input checked="" type="checkbox"/> PL <input type="checkbox"/> OT STEEL BRASS BRONZE OPEN HOLE PLASTIC OTHER	
NUMBER OF UNSUCCESSFUL WELLS: <u>0</u>			C 2 DEPTH (nearest ft.) <u>PL</u> <u>25</u> <u>05</u>	
WELL HYDROFRACTURED <input checked="" type="checkbox"/> Y <input type="checkbox"/> N			E 8 9 11 15 17 21 A 23 24 26 30 32 36 S 38 39 41 45 47 51 R E N	
CIRCLE APPROPRIATE LETTER A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED E ELECTRIC LOG OBTAINED P TEST WELL CONVERTED TO PRODUCTION WELL			SLOT SIZE 1 _____ 2 _____ 3 _____ DIAMETER OF SCREEN <u>0</u> <u>4</u> (NEAREST INCH) 56 60 from <u>25</u> to <u>03</u>	
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.			GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 <u>25</u> <u>03</u> 68	
DRILLERS LIC. NO. 1 <u>MD D 057</u> <u>Carl R. King</u> DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. 1 <u>76 D 051</u>			MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T _____ (E.R.O.S.) W Q _____ 70 _____ 72 _____ 74 75 76	
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)			TELESCOPE CASING LOG INDICATOR OTHER DATA	
		C 3 <u>Recovery well</u> <u>PUMPING TEST NO test</u>		
		HOURS PUMPED (nearest hour) <u>8</u> <u>9</u>		
		PUMPING RATE (gal. per min.) <u>11</u> <u>15</u>		
		METHOD USED TO MEASURE PUMPING RATE _____		
		WATER LEVEL (distance from land surface)		
		BEFORE PUMPING <u>17</u> <u>20</u> ft.		
		WHEN PUMPING <u>22</u> <u>25</u> ft.		
		TYPE OF PUMP USED (for test)		
		<input checked="" type="checkbox"/> A air <input type="checkbox"/> P piston <input type="checkbox"/> T turbine <input type="checkbox"/> C centrifugal <input type="checkbox"/> R rotary <input type="checkbox"/> O other (describe below) <input type="checkbox"/> J jet <input type="checkbox"/> S submersible		
		PUMP INSTALLED DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
		IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.		
		TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. _____ 29		
		CAPACITY: GALLONS PER MINUTE (to nearest gallon) _____ 31 _____ 35		
		PUMP HORSE POWER _____ 37 _____ 41		
		PUMP COLUMN LENGTH (nearest ft.) _____ 43 _____ 47		
		CASING HEIGHT (circle appropriate box and enter casing height) <input checked="" type="checkbox"/> + above } _____ <input checked="" type="checkbox"/> - below } <u>01</u> (nearest foot) 49 51		
		LATITUDE <u>39.612625</u> LONGITUDE <u>75.934669</u> (DEFAULT COORD. WGS 84)		
		NOTES:		

C1	1716	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
1 2 3 4 5 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)		COUNTY <u>Royal Farms Grdwtr</u> NUMBER <u>Invest.-File</u>		

ST/CO USE ONLY DATE RECEIVED MM DD YY 8 13	DATE WELL COMPLETED <u>10 14 11</u>	Depth of Well 22 <u>25</u> 26 (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" <u>CE - 10 - 1035</u>
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OWNER Royal Farms
WELL SITE ADDRESS 500 Mechanics Valley Rd TOWN North East
SUBDIVISION _____ SECTION _____ LOT _____

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Concrete	0	.5	
Gravel	.5	1	
Brown clayey sand	1	5	
Tan sandy clay	5	8	
Beige and Purple clay w/ sand	8	12.5	
Beige Silty clay	12.5	14	
Red and beige Silty clay	14	22	
Beige & Red clay sand	22	25	

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES NO

TYPE OF GROUTING MATERIAL (Circle one)
CEMENT BENTONITE CLAY

CEMENT BENTONITE CLAY

NO. OF BAGS 5 NO. OF POUNDS 25
GALLONS OF WATER 5

DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 3 ft.
48 TOP 52 ft. to 54 BOTTOM 58 ft.
(enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

<input checked="" type="checkbox"/> ST STEEL	<input type="checkbox"/> CO CONCRETE
<input checked="" type="checkbox"/> PL PLASTIC	<input type="checkbox"/> OT OTHER

MAIN CASING Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot)
PL 04 05
60 61 63 64 66 70

OTHER CASING (if used)

diameter inch	depth (feet) from	to

SCREEN RECORD

screen type or open hole insert appropriate code below

<input checked="" type="checkbox"/> ST STEEL	<input type="checkbox"/> BR BRASS	<input type="checkbox"/> HO OPEN HOLE
<input checked="" type="checkbox"/> PL PLASTIC	<input type="checkbox"/> OT OTHER	

C2 DEPTH (nearest ft.)

T	2	PL	25	05	21
E	8	9	11	15	17
A					
C	23	24	26	30	32
H					
S					
C	38	39	41	45	47
R					
E					
N					

SLOT SIZE 1 0 2 2 3 0

DIAMETER OF SCREEN 04 (NEAREST INCH)
56 60

from 25 to 3

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

68

MDE USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

70 72 74 75 76

TELESCOPE CASING LOG INDICATOR OTHER DATA

C3 Recovery well
PUMPING TEST No Test

HOURS PUMPED (nearest hour) 8 9

PUMPING RATE (gal. per min.) 11 15

METHOD USED TO MEASURE PUMPING RATE _____

WATER LEVEL (distance from land surface)

BEFORE PUMPING 17 20 ft.

WHEN PUMPING 22 25 ft.

TYPE OF PUMP USED (for test)

air piston turbine
 centrifugal rotary other (describe below)
 jet submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29 29

CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height)

above } LAND SURFACE
 below } 01 (nearest foot)
49 50 51

LATITUDE 39.612625
LONGITUDE 75.934669
(DEFAULT COORD. WGS 84)

NOTES:

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES NO

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. M6D051

DRILLERS SIGNATURE _____

LIC. NO. M6D051

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

C1	1723	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
1 2 3 4 5 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)		COUNTY <u>Royal Farms Grdwt</u> NUMBER <u>Invest.-File</u>		

ST/CO USE ONLY DATE Received MM DD YY 8 13	DATE WELL COMPLETED MM DD YY 15 17 11	Depth of Well 22 26 (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" CE -10 - 0142 28 29 30 31 32 33 34 35 36 37
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OWNER Royal Farms
WELL SITE ADDRESS 500 Mechanics Valley Rd TOWN North East
SUBDIVISION _____ SECTION _____ LOT _____

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Concrete	0	0.5	
Gravel	0.5	1	
Brn silty sand	1	2	
Tan silty sand	2	3.5	
Brn Silty sand	3.5	5.5	
Tan silty sand w/ clay	5.5	8	
Brn silty clay	8	10	
Red clay w/ silty sand	10	15	✓
Red & white Silty Clay	15	20	
Brn silty clay w/ gravel	20	25	

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL (Circle one)
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 5 NO. OF POUNDS 35
GALLONS OF WATER 5
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 03 ft.
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
 PL ST CO
PLASTIC STEEL CONCRETE
 OT OTHER

MAIN CASING TYPE
 PL Nominal diameter top (main) casing (nearest inch) 04 Total depth of main casing (nearest foot) 05
60 61 63 64 66 70

OTHER CASING (if used)
A C H S C A S I N G diameter inch depth (feet) from to

SCREEN RECORD
screen type or open hole insert appropriate code below
 PL ST BR HO
PLASTIC STEEL BRASS BRONZE OPEN HOLE OTHER

C2 DEPTH (nearest ft.)
T PL 25 05
E 8 9 11 15 17 21
A
C
H 23 24 26 30 32 36
S
C 3
R 38 39 41 45 47 51
E
E
N

SLOT SIZE 1 0 2 2 3 0
DIAMETER OF SCREEN 04 (NEAREST INCH)
56 60
from 25 to 05
68

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) W Q
70 72 74 75 76
TELESCOPE CASING LOG INDICATOR OTHER DATA

C3 Recovery well
PUMPING TEST no test

HOURS PUMPED (nearest hour) 8 9
PUMPING RATE (gal. per min.) 11 15
METHOD USED TO MEASURE PUMPING RATE _____

WATER LEVEL (distance from land surface)
BEFORE PUMPING 17 20 ft.
WHEN PUMPING 22 25 ft.

TYPE OF PUMP USED (for test)
 A air P piston T turbine
 C centrifugal R rotary O other (describe below)
 J jet S submersible

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. 29

CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35
PUMP HORSE POWER 37 41
PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height)
 + above } LAND SURFACE 01 (nearest foot)
 - below }

LATITUDE 39.612625
LONGITUDE 75.934669
(DEFAULT COORD. WGS 84)

NOTES:

NUMBER OF UNSUCCESSFUL WELLS: 0
WELL HYDROFRACTURED yes Y no N

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLER'S LIC. NO. MB D 051
DRILLER'S SIGNATURE [Signature]
(MUST MATCH SIGNATURE ON APPLICATION)
LIC. NO. MB D 051

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

C1	1713	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)			FILL IN THIS FORM COMPLETELY PLEASE TYPE	COUNTY <u>Royal Farms Grdwtr</u> NUMBER <u>Invest.-File</u>

ST/CO USE ONLY DATE Received MM DD YY 8 13	DATE WELL COMPLETED <u>10</u> <u>20</u> <u>11</u>	Depth of Well <u>25</u> (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" <u>CE - 10 - 0132</u>
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OWNER Royal Farms
 WELL SITE ADDRESS 500 Mechanics Valley Rd TOWN North East
 SUBDIVISION _____ SECTION _____ LOT _____

WELL LOG		
Not required for driven wells		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		
DESCRIPTION (Use additional sheets if needed)	FEET	check if water bearing
	FROM	TO
Asphalt & Gravel	0	1
Brn Silty Sand	1	3.5
Beige & Orange Sandy Clay	3.5	5.5
Brn Clayey sand	5.5	6.5
Reddest sandy clay & gravel	6.5	9.0
Red Clayey sand	9.0	13.5
Beige & orange mottled clay	13.5	15
Beige sandy clay	15	20.5
Red sandy clay	20.5	25

GROUTING RECORD	
WELL HAS BEEN GROUTED (Circle Appropriate Box)	
<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
TYPE OF GROUTING MATERIAL (Circle one)	
<input checked="" type="checkbox"/> CM	<input type="checkbox"/> BENTONITE CLAY
CEMENT	BENTONITE CLAY
NO. OF BAGS <u>45</u> <u>5</u>	NO. OF POUNDS <u>45</u> <u>25</u>
GALLONS OF WATER <u>5</u>	
DEPTH OF GROUT SEAL (to nearest foot)	
from <u>01</u> ft. to <u>03</u> ft.	
48	52
54	58
(enter 0 if from surface)	

CASING RECORD	
casing types insert appropriate code below	
<input checked="" type="checkbox"/> PL	<input type="checkbox"/> ST
<input type="checkbox"/> CO	<input type="checkbox"/> OT
<input type="checkbox"/> BR	<input type="checkbox"/> HO
<input type="checkbox"/> PL	<input type="checkbox"/> OT
<input type="checkbox"/> BR	<input type="checkbox"/> HO
<input type="checkbox"/> PL	<input type="checkbox"/> OT
<input type="checkbox"/> BR	<input type="checkbox"/> HO
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<input type="checkbox"/> PL	<input type="checkbox"/> OT
<input type="checkbox"/> BR	<input type="checkbox"/> HO
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<input type="checkbox"/> BR	<input type="checkbox"/> HO
<input type="checkbox"/> PL	<input type="checkbox"/> OT
<input type="checkbox"/> BR	<input type="checkbox"/> HO
<input type="checkbox"/> PL	<input type="checkbox"/> OT
<input type="checkbox"/> BR	<input type="checkbox"/> HO
<input type="checkbox"/> PL	

C1	1720	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)				

ST/CO USE ONLY DATE Received MM DD YY 8 13	DATE WELL COMPLETED MM DD YY 10 24 11	Depth of Well 22 25 26 (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" CE - 10 - 0139 28 29 30 31 32 33 34 35 36 37
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OWNER: Royal Farms
 WELL SITE ADDRESS: 500 Mechanics Valley Rd TOWN: North East
 SUBDIVISION: _____ SECTION: _____ LOT: _____

WELL LOG			
Not required for driven wells			
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING			
DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Asphalt & Gravel	0	1	
Brown Silty Sand	1	5	
Tan Sand w/ stiff clay	5	7	
Purple sandy clay	7	8.5	
Beige hard Orange mottled silty clay	8.5	12.5	
Red to beige clay	12.5	14	
white & Orange sandy clay	14	16.5	
White & orange sand w/ clay	16.5	20	
Tan silty clay	20	25	
Quartz gravel	25	30	
Orange sand			

GROUTING RECORD	
WELL HAS BEEN GROUTED (Circle Appropriate Box) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
TYPE OF GROUTING MATERIAL (Circle one) CEMENT <input checked="" type="checkbox"/> BENTONITE CLAY <input type="checkbox"/>	
NO. OF BAGS <u>15</u>	NO. OF POUNDS <u>25</u>
GALLONS OF WATER <u>15</u>	
DEPTH OF GROUT SEAL (to nearest foot) from <u>01</u> ft. to <u>03</u> ft. (enter 0 if from surface)	

CASING RECORD	
casing types insert appropriate code below	
<input checked="" type="checkbox"/> PL PLASTIC	<input type="checkbox"/> ST STEEL <input type="checkbox"/> CO CONCRETE <input type="checkbox"/> OT OTHER
MAIN CASING TYPE <u>PL</u>	Nominal diameter top (main) casing (nearest inch) <u>04</u>
	Total depth of main casing (nearest foot) <u>05</u>

E A C H C A S I N G	OTHER CASING (if used)	
	diameter inch	depth (feet) from to

SCREEN RECORD	
screen type or open hole insert appropriate code below	
<input checked="" type="checkbox"/> PL PLASTIC	<input type="checkbox"/> ST STEEL <input type="checkbox"/> BR BRASS <input type="checkbox"/> HO OPEN HOLE <input type="checkbox"/> OT OTHER

DEPTH (nearest ft.)	
T	PL <u>25</u> <u>05</u>
E	8 9 11 15 17 21
A	
C	23 24 26 30 32 36
H	
S	
C	38 39 41 45 47 51
R	
E	SLOT SIZE 1 <u>02</u> 2 <u>20</u> 3 <u>0</u>
N	
DIAMETER OF SCREEN <u>04</u> (NEAREST INCH)	
from <u>25</u> to <u>03</u>	

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)
 T _____ (E.R.O.S.) W Q _____

70 _____ 72 _____ 74 75 76 _____

TELESCOPE CASING LOG INDICATOR OTHER DATA

PUMPING TEST	
Recovery well	
HOURS PUMPED (nearest hour)	8 9
PUMPING RATE (gal. per min.)	11 15
METHOD USED TO MEASURE PUMPING RATE _____	
WATER LEVEL (distance from land surface)	
BEFORE PUMPING	17 20 ft.
WHEN PUMPING	22 25 ft.
TYPE OF PUMP USED (for test)	
<input checked="" type="checkbox"/> A air	<input type="checkbox"/> P piston
<input type="checkbox"/> C centrifugal	<input type="checkbox"/> R rotary
<input type="checkbox"/> J jet	<input type="checkbox"/> S submersible
<input type="checkbox"/> T turbine	<input type="checkbox"/> O other (describe below)

PUMP INSTALLED	
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO)	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.	
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29.	29
CAPACITY: GALLONS PER MINUTE (to nearest gallon)	31 35
PUMP HORSE POWER	37 41
PUMP COLUMN LENGTH (nearest ft.)	43 47
CASING HEIGHT (circle appropriate box and enter casing height)	+ above } LAND SURFACE
<input checked="" type="checkbox"/> - below }	<u>01</u> (nearest foot)

LATITUDE 39.612625
 LONGITUDE 75.934669
 (DEFAULT COORD. WGS 84)

NOTES:

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES NO

CIRCLE APPROPRIATE LETTER
 A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
 E ELECTRIC LOG OBTAINED
 P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. 1 MGD 051
 DRILLERS SIGNATURE _____
 (MUST MATCH SIGNATURE ON APPLICATION)
 LIC. NO. 1 MGD 051

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

C1	1722	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)			COUNTY <u>Royal Farms Grdwtr</u> NUMBER <u>Invest.-File</u>	

ST/CO USE ONLY DATE RECEIVED MM DD YY 8 13	DATE WELL COMPLETED MM DD YY 10 24 11	Depth of Well 22 55 26 (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" CE - 10 - 0141 28 29 30 31 32 33 34 35 36 37
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OWNER: Royal Farms
 WELL SITE ADDRESS: 500 Mechanicsville Rd TOWN: North East
 SUBDIVISION: _____ SECTION: _____ LOT: _____

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Grass Topsoil	0	1	
Orange Silty Sand	1	4	
Orange Silty sand & Gravel	4	9.5	
Red/white/ Brown sand	9.5	10.5	
White clayey sand & silt	10.5	12.5	
Red & white clay w/sand	12.5	14.5	
White & orange mottled clay	14.5	17	
Brown silty clay	17	23.5	
White & orange clay w/sand & gravel	23.5	25	

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES NO

TYPE OF GROUTING MATERIAL (Circle one)
 CEMENT **CM** BENTONITE CLAY **BC**

NO. OF BAGS 5 NO. OF POUNDS 25
 GALLONS OF WATER 5

DEPTH OF GROUT SEAL (to nearest foot)
 from 01 ft. to 03 ft.
 (enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

<input checked="" type="checkbox"/> ST STEEL	<input type="checkbox"/> CO CONCRETE
<input checked="" type="checkbox"/> PL PLASTIC	<input type="checkbox"/> OT OTHER

MAIN CASING TYPE: PL Nominal diameter top (main) casing (nearest inch): 04 Total depth of main casing (nearest foot): 05

OTHER CASING (if used)

EACH CASING	diameter inch		depth (feet)	
	inch	from	to	to

SCREEN RECORD

screen type or open hole (insert appropriate code below)

<input checked="" type="checkbox"/> ST STEEL	<input type="checkbox"/> BR BRASS	<input type="checkbox"/> HO OPEN HOLE
<input checked="" type="checkbox"/> PL PLASTIC	<input type="checkbox"/> OT OTHER	

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES NO

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. MB D 051
 DRILLERS SIGNATURE: [Signature]
 (MUST MATCH SIGNATURE ON APPLICATION)
 LIC. NO. 1160051

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

C3

PUMPING TEST

HOURS PUMPED (nearest hour) 8 9

PUMPING RATE (gal. per min.) 11 15

METHOD USED TO MEASURE PUMPING RATE _____

WATER LEVEL (distance from land surface)

BEFORE PUMPING 17 20 ft.

WHEN PUMPING 22 25 ft.

TYPE OF PUMP USED (for test)

<input checked="" type="checkbox"/> A air	<input type="checkbox"/> P piston	<input type="checkbox"/> T turbine
<input type="checkbox"/> C centrifugal	<input type="checkbox"/> R rotary	<input type="checkbox"/> O other (describe below)
<input type="checkbox"/> J jet	<input type="checkbox"/> S submersible	

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29: 29

CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height)

above } LAND SURFACE 01 (nearest foot)

below }

LATITUDE 39.612625
 LONGITUDE 75.934669
 (DEFAULT COORD. WGS 84)
 NOTES:

C2

DEPTH (nearest ft.)

1	<u>PL</u>	<u>25</u>	<u>05</u>
EACH CASING	8 9 11	15 17	21
2	23 24 26	30 32	36
3	38 39 41	45 47	51

SLOT SIZE 1 0.2 2 0.2 3 0

DIAMETER OF SCREEN 04 (NEAREST INCH)
 from 25 to 03

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

70 _____ 72 _____ 74 75 76 _____

TELESCOPE CASING LOG INDICATOR OTHER DATA

C1	1714	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
1 2 3 4 5 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)		COUNTY <u>Royal Farms</u> Grdwtr NUMBER <u>Invet. File</u>		

ST/CO USE ONLY DATE Received MM DD YY B 13	DATE WELL COMPLETED MM DD YY <u>10 24 11</u>	Depth of Well 22 <u>25</u> 26 (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" CE - 10 - 0133 28 29 30 31 32 33 34 35 36 37
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OWNER Royal Farms
WELL SITE ADDRESS 500 Mechanics Valley Rd TOWN North East
SUBDIVISION _____ SECTION _____ LOT _____

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
<u>Grass, Topsoil</u>	<u>0</u>	<u>1</u>	
<u>Brn clayey sand</u>	<u>1</u>	<u>3.5</u>	
<u>Brn tan clayey sand</u>	<u>3.5</u>	<u>5</u>	
<u>Red silty clayey gravel</u>	<u>5</u>	<u>8.5</u>	
<u>Purple Clay stiff</u>	<u>8.5</u>	<u>10</u>	
<u>White Clay</u>	<u>10</u>	<u>13</u>	✓
<u>Brn sandy clay</u>	<u>13</u>	<u>15</u>	
<u>White silty clay</u>	<u>15</u>	<u>20</u>	
<u>Orange loose sand</u>	<u>20</u>	<u>22</u>	
<u>Red / white clayey sand</u>	<u>22</u>	<u>25</u>	

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) **Y** **N**
 TYPE OF GROUTING MATERIAL (Circle one) **CM** **BC**
 CEMENT **CM** BENTONITE CLAY **BC**
 NO. OF BAGS 15 NO. OF POUNDS 27
 GALLONS OF WATER 15
 DEPTH OF GROUT SEAL (to nearest foot)
 from 01 ft. to 03 ft.
 (enter 0 if from surface)

CASING RECORD

MAIN CASING TYPE **PL**
 Nominal diameter top (main) casing (nearest inch)! 60
 Total depth of main casing (nearest foot) 25

OTHER CASING (if used)

E A C H C A S I N G	diameter		depth (feet)	
	inch	from	to	
1				
2				
3				

screen type or open hole (insert appropriate code below) **PL** **BR** **HO**
 STEEL BRASS OPEN HOLE
PL **OT**
 PLASTIC OTHER

NUMBER OF UNSUCCESSFUL WELLS: 0
 WELL HYDROFRACTURED **Y** **N**

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLER'S LIC. NO. ME 6051
 DRILLER'S SIGNATURE [Signature]
 LIC. NO. ME 6051

C2 DEPTH (nearest ft.)

E A C H C A S I N G	diameter		depth (feet)	
	inch	from	to	
1	<u>60</u>	<u>25</u>	<u>05</u>	
2				
3				

SLOT SIZE 1 2 2 3 0
 DIAMETER OF SCREEN 04 (NEAREST INCH)
 from 25 to 03

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)
 T (E.R.O.S.) W Q

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

C3 Monitor Well
PUMPING TEST

HOURS PUMPED (nearest hour) 8 9
 PUMPING RATE (gal. per min.) 11 15
 METHOD USED TO MEASURE PUMPING RATE _____
 WATER LEVEL (distance from land surface)
 BEFORE PUMPING 17 20 ft.
 WHEN PUMPING 22 25 ft.
 TYPE OF PUMP USED (for test)
A air **P** piston **T** turbine
C centrifugal **R** rotary **O** other (describe below)
J jet **S** submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES **NO**
 IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.
 TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29 29
 CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35
 PUMP HORSE POWER 37 41
 PUMP COLUMN LENGTH (nearest ft.) 43 47
 CASING HEIGHT (circle appropriate box and enter casing height)
+ above } LAND SURFACE
- below } 01 (nearest foot)

LATITUDE 39.612623
 LONGITUDE 75.934669
 (DEFAULT COORD. WGS 84)

NOTES:

C1	1709	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)			FILL IN THIS FORM COMPLETELY PLEASE TYPE	COUNTY <u>Royal Farms Grdwtr</u> NUMBER <u>Invest.-Ffile</u>

ST/CO USE ONLY DATE Received MM DD YY 8 13	DATE WELL COMPLETED <u>18</u> <u>24</u> <u>11</u> 15 20	Depth of Well 22 <u>25</u> 26 (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" <u>CE - 10 - 0128</u> 28 29 30 31 32 33 34 35 36 37
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OWNER Royal Farms
 WELL SITE ADDRESS 500 Mechanics Valley Rd TOWN North East
 SUBDIVISION _____ SECTION _____ LOT _____

WELL LOG		
Not required for driven wells		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		
DESCRIPTION (Use additional sheets if needed)	FEET	check if water bearing
	FROM	TO
<u>Grass, Topsoil</u>	<u>0</u>	<u>1</u>
<u>Orange sand/gravel</u>	<u>1</u>	<u>4</u>
<u>Tan Silty sand</u>	<u>4</u>	<u>7</u>
<u>Orange Clay w/ sand & gravel</u>	<u>7</u>	<u>8.5</u>
<u>Reddish clay w/ sand w/ gravel</u>	<u>8.5</u>	<u>13</u>
<u>white, red, tan silty clay</u>	<u>13</u>	<u>20</u>
<u>red & white silty clay</u>	<u>20</u>	<u>23</u>
<u>Black & Gray Sand</u>	<u>23</u>	<u>25</u>

GROUTING RECORD	
WELL HAS BEEN GROUTED (Circle Appropriate Box) <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
TYPE OF GROUTING MATERIAL (Circle one) CEMENT <input checked="" type="checkbox"/> CM BENTONITE CLAY <input type="checkbox"/> BC	
NO. OF BAGS <u>45</u> <u>15</u>	NO. OF POUNDS <u>45</u> <u>45</u>
GALLONS OF WATER <u>5</u>	
DEPTH OF GROUT SEAL (to nearest foot) from <u>01</u> ft. to <u>03</u> ft. (enter 0 if from surface) 48 TOP 52 54 BOTTOM 58	

CASING RECORD		
casing types insert appropriate code below	<input checked="" type="checkbox"/> ST STEEL	<input type="checkbox"/> CO CONCRETE
	<input checked="" type="checkbox"/> PL PLASTIC	<input type="checkbox"/> OT OTHER
MAIN CASING TYPE <u>PL</u>	Nominal diameter top (main) casing (nearest inch)! <u>04</u>	Total depth of main casing (nearest foot) <u>05</u>
60 61	63 64	66 70

OTHER CASING (if used)		
EACH CASING	diameter inch	depth (feet) from to

SCREEN RECORD		
screen type or open hole insert appropriate code below	<input type="checkbox"/> ST STEEL	<input type="checkbox"/> BR BRASS
	<input checked="" type="checkbox"/> PL PLASTIC	<input type="checkbox"/> HO OPEN HOLE
		<input type="checkbox"/> OT OTHER

NUMBER OF UNSUCCESSFUL WELLS: 0
 WELL HYDROFRACTURED YES NO

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLER'S LIC. NO. M6D051
 DRILLER'S SIGNATURE [Signature]
 (MUST MATCH SIGNATURE ON APPLICATION)
 LIC. NO. M6D051

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

DEPTH (nearest ft.)	
<u>PL</u> <u>25</u> <u>05</u>	<u>05</u>
EACH CASING	depth (feet) from to
1	8 9 11 15 17 21
2	23 24 26 30 32 36
3	38 39 41 45 47 51
SLOT SIZE 1	<u>0</u> <u>2</u> <u>0</u>
DIAMETER OF SCREEN	<u>04</u> (NEAREST INCH)
56	60
from	to
<u>25</u>	<u>03</u>

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68
 T _____ W Q _____

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) (E.R.O.S.)
 T _____ W Q _____
 70 _____ 72 _____ 74 75 76 _____
 TELESCOPE CASING LOG INDICATOR OTHER DATA

PUMPING TEST	
<u>Monitor well only</u>	
HOURS PUMPED (nearest hour)	<u>8</u> <u>9</u>
PUMPING RATE (gal. per min.)	11 _____ 15 _____
METHOD USED TO MEASURE PUMPING RATE	
WATER LEVEL (distance from land surface)	
BEFORE PUMPING	<u>17</u> _____ <u>20</u> ft.
WHEN PUMPING	<u>22</u> _____ <u>25</u> ft.
TYPE OF PUMP USED (for test)	
<input checked="" type="checkbox"/> A air	<input type="checkbox"/> P piston
<input type="checkbox"/> C centrifugal	<input type="checkbox"/> R rotary
<input type="checkbox"/> J jet	<input type="checkbox"/> S submersible
<input type="checkbox"/> T turbine	<input type="checkbox"/> O other (describe below)

PUMP INSTALLED	
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO)	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.	
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29	<u>29</u>
CAPACITY: GALLONS PER MINUTE (to nearest gallon)	31 _____ 35 _____
PUMP HORSE POWER	37 _____ 41 _____
PUMP COLUMN LENGTH (nearest ft.)	<u>43</u> _____ <u>47</u> _____
CASING HEIGHT (circle appropriate box and enter casing height)	
<input checked="" type="checkbox"/> above	
<input type="checkbox"/> below	
LAND SURFACE	<u>01</u> (nearest foot) 49 50 51

LATITUDE 39.612625
 LONGITUDE 75.934617
 (DEFAULT COORD. WGS 84)
 NOTES:

C 1	1710	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED. COUNTY <u>Royal Farms Grdwtr</u> NUMBER <u>Invest.-File</u>
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ST/CO USE ONLY DATE Received MM DD YY <u>8 13</u>	DATE WELL COMPLETED <u>10 25 11</u>	Depth of Well <u>22 25 26</u> (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" <u>CE - 10 - 0129</u>
--	--	---	--

OWNER Royal Farms
WELL SITE ADDRESS 500 Mechanics Valley rd TOWN North East
SUBDIVISION _____ SECTION _____ LOT _____

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
<u>Grass & Top soil</u>	<u>0</u>	<u>1</u>	
<u>Reddish Brn & silty sand w/ gravel</u>	<u>1</u>	<u>2</u>	
<u>Brn silty sand</u>	<u>2</u>	<u>5</u>	
<u>Brn & Gray sand w/ clay & gravel</u>	<u>5</u>	<u>10</u>	
<u>Red & white mottled clay</u>	<u>10</u>	<u>11</u>	
<u>Beige silty clay</u>	<u>11</u>	<u>13.5</u>	
<u>Orange sand & gravel</u>	<u>13.5</u>	<u>15.5</u>	✓
<u>Red & Beige silty clay</u>	<u>15.5</u>	<u>19.5</u>	
<u>Beige & Orange clay, sand, gravel</u>	<u>19.5</u>	<u>25</u>	

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES NO

TYPE OF GROUTING MATERIAL (Circle one)
CEMENT BENTONITE CLAY

CEMENT M BENTONITE CLAY BC

NO. OF BAGS 45 46 5 NO. OF POUNDS 25

GALLONS OF WATER 10

DEPTH OF GROUT SEAL (to nearest foot)
from 01 ft. to 03 ft.
48 TOP 52 ft. 54 BOTTOM 58

CASING RECORD

casing types insert appropriate code below

ST STEEL CO CONCRETE
PL PLASTIC OT OTHER

MAIN CASING TYPE PL Nominal diameter top (main) casing (nearest inch) 04 Total depth of main casing (nearest foot) 05

60 61 63 64 66 70

OTHER CASING (if used)

diameter depth (feet)
inch from to

A C H S I N G

SCREEN RECORD

screen type or open hole insert appropriate code below

ST STEEL BR BRASS HO OPEN HOLE
PL PLASTIC OT OTHER

C 2 DEPTH (nearest ft.)

T PL 25 05

E 1 8 9 11 15 17 21

A C H 2 23 24 26 30 32 36

S C 3 38 39 41 45 47 51

R E E N SLOT SIZE 1 0 2 2 0

DIAMETER OF SCREEN 0 4 (NEAREST INCH)
56 60

from 25 to 03

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

70 72 74 75 76

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3 Monitor well only

PUMPING TEST

HOURS PUMPED (nearest hour) 8 9

PUMPING RATE (gal. per min.) 11 15

METHOD USED TO MEASURE PUMPING RATE _____

WATER LEVEL (distance from land surface)

BEFORE PUMPING 17 20 ft.

WHEN PUMPING 22 25 ft.

TYPE OF PUMP USED (for test)

A air P piston T turbine
C centrifugal R rotary O other (describe below)
J jet S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES OR NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29 29

CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height)

+ above } LAND SURFACE
- below } 01 (nearest foot)

LATITUDE 39.612625
LONGITUDE 75.934669
(DEFAULT COORD. WGS 84)

NOTES:

NUMBER OF UNSUCCESSFUL WELLS: _____

WELL HYDROFRACTURED YES NO

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. MG D 051

DRILLERS SIGNATURE [Signature]
(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 MG D 051

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

C1	1711	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)		COUNTY <u>Royal Farms Grdwtr</u> NUMBER <u>Invest.-File</u>		
ST/CO USE ONLY DATE Received MM DD YY 8 13	DATE WELL COMPLETED MM DD YY 10 26 11	Depth of Well 22 <u>25</u> 26 (TO NEAREST FOOT)		PERMIT NO. FROM "PERMIT TO DRILL WELL" CE - 10 - 0130 28 29 30 31 32 33 34 35 36 37
OWNER <u>Royal Farms</u> WELL SITE ADDRESS <u>5000 Mechanics Valley Rd</u> first name TOWN <u>North East</u> SUBDIVISION SECTION LOT				
WELL LOG Not required for driven wells		GROUTING RECORD yes no WELL HAS BEEN GROUTED (Circle Appropriate Box) <input checked="" type="checkbox"/> 44 <input type="checkbox"/> 44		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		TYPE OF GROUTING MATERIAL (Circle one) CEMENT <input checked="" type="checkbox"/> CM BENTONITE CLAY <input checked="" type="checkbox"/> BC		
DESCRIPTION (Use additional sheets if needed)	FEET FROM TO	check if water bearing	CEMENT 45 46 BENTONITE CLAY 45 46 NO. OF BAGS NO. OF POUNDS GALLONS OF WATER DEPTH OF GROUT SEAL (to nearest foot) from <u>1</u> ft. to <u>3</u> ft. 48 TOP 52 54 BOTTOM 58 ft. (enter 0 if from surface)	
<u>Grass & Topsoil</u>	<u>0 1</u>		Casing types insert appropriate code below <input checked="" type="checkbox"/> ST <input type="checkbox"/> CO <input checked="" type="checkbox"/> PL <input type="checkbox"/> OT STEEL CONCRETE PLASTIC OTHER	
<u>Brown Silty sand & asphalt</u>	<u>1 2</u>		MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch)! Total depth of main casing (nearest foot) <u>PL</u> <u>04</u> <u>05</u> 60 61 63 64 66 70	
<u>Brown Sandy Silt</u>	<u>2 3.5</u>		OTHER CASING (if used) diameter depth (feet) from to E A C H C A S I N G	
<u>Tan Sandy Silt</u>	<u>3.5 8.5</u>		screen type or open hole SCREEN RECORD (insert appropriate code below) <input checked="" type="checkbox"/> ST <input checked="" type="checkbox"/> BR <input type="checkbox"/> HO STEEL BRASS OPEN HOLE <input checked="" type="checkbox"/> PL <input type="checkbox"/> OT PLASTIC OTHER	
<u>Tan Sand</u>	<u>8.5 12</u>		C2 DEPTH (nearest ft.) 1 <u>PL</u> <u>25</u> <u>05</u> E A C H S C R E E N 8 9 11 15 17 21 23 24 26 30 32 36 38 39 41 45 47 51	
<u>Tan Sand</u>	<u>12 25</u>	<input checked="" type="checkbox"/>	SLOT SIZE 1 <u>0.2</u> 2 <u>0</u> 3 <u>0</u> DIAMETER OF SCREEN <u>04</u> (NEAREST INCH) 56 60 from <u>25</u> to <u>3</u>	
NUMBER OF UNSUCCESSFUL WELLS: <u>0</u>	WELL HYDROFRACTURED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68		
CIRCLE APPROPRIATE LETTER A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED E ELECTRIC LOG OBTAINED P TEST WELL CONVERTED TO PRODUCTION WELL		MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q		
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.		70 72 74 75 76		
DRILLERS LIC. NO. <u>M 051</u> <u>Carl R. Aug</u> DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. <u>M 6051</u>		TELESCOPE CASING LOG INDICATOR OTHER DATA		
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)		LATITUDE <u>39.612625</u> LONGITUDE <u>75.934669</u> (DEFAULT COORD. WGS 84) NOTES:		

C1	1721	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)			FILL IN THIS FORM COMPLETELY PLEASE TYPE	COUNTY <u>Royal Farms Grdwtr</u> NUMBER <u>Invest.-File</u>
ST/GO USE ONLY DATE Received MM DD YY 8 13	DATE WELL COMPLETED MM DD YY 11 26 11	Depth of Well 22 <u>25</u> 26 (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" CE - 10 - 0140 28 29 30 31 32 33 34 35 36 37	
OWNER <u>Royal Farms</u> WELL SITE ADDRESS <u>500 Mechanics Valley Rd</u> TOWN <u>North East</u> SUBDIVISION _____ SECTION _____ LOT _____				

WELL LOG			
Not required for driven wells			
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING			
DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
<u>Grass & Top soil</u>	0	1	
<u>Bra sandy silt w/ asphalt</u>	1	2	
<u>Bra sandy silt</u>	2	3.5	
<u>Brownish tan</u>	3.5	8.5	✓
<u>Red sand</u>	8.5	18	
<u>Tan sand</u>	18	25	

GROUTING RECORD	
WELL HAS BEEN GROUTED (Circle Appropriate Box) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
TYPE OF GROUTING MATERIAL (Circle one) CEMENT <input checked="" type="checkbox"/> CM BENTONITE CLAY <input type="checkbox"/> BC	
NO. OF BAGS <u>5</u> NO. OF POUNDS <u>25</u>	
GALLONS OF WATER <u>5</u>	
DEPTH OF GROUT SEAL (to nearest foot) from <u>01</u> ft. to <u>03</u> ft. (enter 0 if from surface) 48 TOP 52 ft. to 54 BOTTOM 58 ft.	
CASING RECORD	
casing types insert appropriate code below <input checked="" type="checkbox"/> PL <input type="checkbox"/> ST <input type="checkbox"/> CO PLASTIC STEEL CONCRETE <input type="checkbox"/> OT OTHER	
MAIN CASING TYPE <u>PL</u> 60 61	Nominal diameter top (main) casing (nearest inch)! <u>04</u> 63 64
	Total depth of main casing (nearest foot) <u>05</u> 66 70
OTHER CASING (if used) diameter inch depth (feet) to	
E A C H C A S I N G _____ inch _____ depth (feet) to _____	
SCREEN RECORD	
screen type or open hole insert appropriate code below <input checked="" type="checkbox"/> PL <input type="checkbox"/> ST <input type="checkbox"/> BR <input type="checkbox"/> HO PLASTIC STEEL BRASS BRONZE OPEN HOLE <input type="checkbox"/> OT OTHER	

C3		<u>Monitor well</u>
PUMPING TEST		
HOURS PUMPED (nearest hour) <u>8</u> <u>9</u>		
PUMPING RATE (gal. per min.) <u>11</u> <u>15</u>		
METHOD USED TO MEASURE PUMPING RATE _____		
WATER LEVEL (distance from land surface)		
BEFORE PUMPING <u>17</u> <u>20</u> ft.		
WHEN PUMPING <u>22</u> <u>25</u> ft.		
TYPE OF PUMP USED (for test)		
<input checked="" type="checkbox"/> A air	<input type="checkbox"/> P piston	<input type="checkbox"/> T turbine
<input type="checkbox"/> C centrifugal	<input type="checkbox"/> R rotary	<input type="checkbox"/> O other (describe below)
<input type="checkbox"/> J jet	<input type="checkbox"/> S submersible	

NUMBER OF UNSUCCESSFUL WELLS: <u>0</u>
WELL HYDROFRACTURED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
CIRCLE APPROPRIATE LETTER A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED E ELECTRIC LOG OBTAINED P TEST WELL CONVERTED TO PRODUCTION WELL
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.
DRILLERS LIC. NO. <u>176D051</u> DRILLERS SIGNATURE <u>[Signature]</u> (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. <u>176D051</u>
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

C2		DEPTH (nearest ft.)
1 <u>PL</u> <u>25</u> <u>05</u> 8 9 11 15 17 21		
2 _____ 23 24 26 30 32 36		
3 _____ 38 39 41 45 47 51		
S L O T S I Z E 1 <u>0</u> 2 <u>2</u> 3 <u>0</u>		
DIAMETER OF SCREEN <u>04</u> (NEAREST INCH) 56 60		
from <u>25</u> to <u>03</u>		
GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 _____		
MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q		
70 _____ 72 _____ 74 75 76		
TELESCOPE CASING LOG INDICATOR OTHER DATA		

PUMP INSTALLED	
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO)	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.	
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29 <u>29</u>	
CAPACITY: GALLONS PER MINUTE (to nearest gallon)	<u>31</u> <u>35</u>
PUMP HORSE POWER	<u>37</u> <u>41</u>
PUMP COLUMN LENGTH (nearest ft.)	<u>43</u> <u>47</u>
CASING HEIGHT (circle appropriate box and enter casing height)	LAND SURFACE
<input checked="" type="checkbox"/> above	<u>01</u> (nearest foot)
<input type="checkbox"/> below	<u>50</u> <u>51</u>
LATITUDE <u>39.612625</u>	
LONGITUDE <u>75.934669</u>	
(DEFAULT COORD. WGS 84)	
NOTES:	

C1	1717	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
<small>1 2 3 6</small> (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)			FILL IN THIS FORM COMPLETELY PLEASE TYPE	COUNTY <u>Royal Farms Grdwtr</u> NUMBER <u>Invest.-File</u>

ST/CO USE ONLY DATE RECEIVED MM DD YY 8 13	DATE WELL COMPLETED MM DD YY 10 27 11	Depth of Well 22 <u>25</u> 26 (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" CE - 10 - 1036 28 29 30 31 32 33 34 35 36 37
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OWNER Royal Farms
 WELL SITE ADDRESS 500 Mechanics Valley Rd TOWN North East
 SUBDIVISION _____ SECTION _____ LOT _____

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
<u>Grass & Topsoil</u>	<u>0</u>	<u>1</u>	
<u>Brown Silty sand</u>	<u>0</u>	<u>3</u>	
<u>Orange Coarse sand w/ clay</u>	<u>3</u>	<u>4</u>	
<u>Thin sand w/ clay</u>	<u>4</u>	<u>6</u>	
<u>Beige clay w/ silt</u>	<u>6</u>	<u>7</u>	
<u>Beige clayey sand</u>	<u>7</u>	<u>10</u>	
<u>mottled Beige & fitty sand</u>	<u>10</u>	<u>12</u>	
<u>Thin clayey sand</u>	<u>12</u>	<u>14</u>	
<u>Red tan bronze clayey sand</u>	<u>14</u>	<u>17</u>	
<u>Purple & white mottled clay</u>	<u>17</u>	<u>21</u>	
<u>multi-colored stiff clay</u>	<u>21</u>	<u>24</u>	
<u>Orange sand & Quartz gravel</u>	<u>24</u>	<u>25</u>	

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL (Circle one)
 CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 45 5 NO. OF POUNDS 495 95

GALLONS OF WATER 5

DEPTH OF GROUT SEAL (to nearest foot)
 from 01 ft. to 03 ft.
48 TOP 52 54 BOTTOM 58 ft.
 (enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

<input checked="" type="checkbox"/> ST STEEL	<input type="checkbox"/> CO CONCRETE
<input checked="" type="checkbox"/> PL PLASTIC	<input type="checkbox"/> OT OTHER

MAIN CASING TYPE PE Nominal diameter top (main) casing (nearest inch)! 04 Total depth of main casing (nearest foot) 05

OTHER CASING (if used)

EACH CASING	diameter inch		depth (feet)	
	inch	from	from	to

SCREEN RECORD

screen type or open hole (insert appropriate code below)

<input checked="" type="checkbox"/> ST STEEL	<input type="checkbox"/> BR BRASS	<input type="checkbox"/> HO OPEN HOLE
<input checked="" type="checkbox"/> PL PLASTIC	<input type="checkbox"/> OT OTHER	

C2 DEPTH (nearest ft.)

C2	<u>PL</u>	<u>25</u>	<u>05</u>						
E	8	9	11	15	17	21			
A									
C	23	24	26	30	32	36			
R									
S	38	39	41	45	47	51			
E									
E									
N									

SLOT SIZE 1 0.2 2 0 3 0

DIAMETER OF SCREEN 04 (NEAREST INCH)
56 60

from 25 to 03

C3 Monitor Well

PUMPING TEST only

HOURS PUMPED (nearest hour) 8 9

PUMPING RATE (gal. per min.) 11 15

METHOD USED TO MEASURE PUMPING RATE _____

WATER LEVEL (distance from land surface)

BEFORE PUMPING 17 20 ft.

WHEN PUMPING 22 25 ft.

TYPE OF PUMP USED (for test)

<input checked="" type="checkbox"/> A air	<input type="checkbox"/> P piston	<input type="checkbox"/> T turbine
<input type="checkbox"/> C centrifugal	<input type="checkbox"/> R rotary	<input type="checkbox"/> O other (describe below)
<input type="checkbox"/> J jet	<input type="checkbox"/> S submersible	

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29 29

CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height)

+ above } LAND SURFACE

- below } 01 (nearest foot)
50 51

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED Y N

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLER'S LIC. NO. M D 051

DRILLER'S SIGNATURE [Signature]
(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. M D 051

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T _____ (E.R.O.S.) W Q _____

70 _____ 72 _____ 74 75 76 _____

TELESCOPE CASING LOG INDICATOR OTHER DATA

LATITUDE 39.612625

LONGITUDE 75.934662

(DEFAULT COORD. WGS 84)

NOTES: