



DUFFIELD ASSOCIATES

Consultants in the Geosciences

OBSERVATION WELL OB-2

Permit No : 212419

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The Landings at Pepper Creek
Hydrogeological Evaluation
Dagsboro, DE
6143.YC

Date Started : December 1, 2005
Date Completed : December 1, 2005
Logged by : JSD
Weather : Partly Cloudy, 40's
Driller/Agency : G Truver Sr./Walton Corp

Drilling Equipment : ATV-mounted CME 55
Drilling Methods : 4.25" H.S.A.
Surface Elevation : 11.5 feet
Northing : 63,680 U.S. Meters DE SPC NAD 83
Easting : 218,367 U.S. Meters DE SPC NAD 83

Depth in feet	Surf. Elev. 115 ft	GRAPHIC	USCS	USDA	Sample Condition	Water Levels	SAMPLES	Sample Number	Blows per 6 inches	Recovery (ft)	Well Construction Details	WATER LEVEL	Observation Well 212419 Top of Well Elev. PVC = 14.07 Steel Casing Rm 14.25 Surf. Elev. 11.5 ft
					Remolded	During Drilling							
0	11.4							1A	1/12-1-1	1.6			
			SP-SM	LS				1B					
					Topsoil [10YR 2/2 very dark brown fine to medium SAND, some organics, trace silt (damp)].			1C					
					2.5Y 4/4 olive brown fine to medium SAND, trace coarse sand, trace silt, trace organics (damp).								
					2.5Y 6/4 light yellowish brown fine to medium SAND, trace coarse sand, trace organics, trace silt (damp).								
2					SAME, trace granules/pebbles (damp)			2A	1-2-1-4	1.6			
								2B			2" Schedule 40 PVC Solid Well Casing		
			CL	CL	2.5Y 5/6 light olive brown, 2.5Y 6/4 light yellowish brown CLAY, little fine sand, trace to little silt (damp).								
								3A	1-6-8-10	1.3			
			ML	SL/SIL	2.5Y 6/8 olive yellow, 2.5Y 5/6 light olive brown SILT and fine sand, trace clay (dry).								
								3B					
			SM	LS/SL	2.5Y 6/8 olive yellow, 2.5Y 5/6 light olive brown medium to coarse SAND, trace to little silt, trace fine sand, trace granules (dry).								
								4A	9-10-10-8	1.5	Cement/Bentonite Grout		
			SP-SM	LS/S	2.5Y 6/8 olive yellow fine to medium SAND, trace silt (dry) (lenses of coarse sand 0.02 feet +/- thick, spaced 0.2 feet +/-).								
								4B					
			SP	S/L/S	5Y 7/4 pale yellow medium to coarse SAND, little to some fine sand, trace pebbles, trace to no silt (dry to damp).								
								5A	2-4-3-2	1.3			
					5Y 7/3 pale yellow coarse SAND, little medium sand, trace fine sand, trace to no silt (wet) (lense of little silt from 8.3 to 8.5 feet +/-).								
								5B					
			SP-SM	LS	5& 7/2 light gray fine SAND, little very fine sand, trace silt (wet to saturated).								
								6A	3-4-4-6	1.6			
					SAME (saturated).								
			SP-SM	LS	5Y 8/2 pale yellow coarse SAND, trace fine to medium SAND, trace silt (saturated) (lense of some to and silt/clay from 10.6 to 10.7 feet +/-).			6B					
								6C					
			SP-SM	LS	5Y 8/2 pale yellow fine to medium SAND, trace coarse sand, trace silt (saturated).								
								7	2-2-3-4	1.4	Sand Pack - #2 well sand		
			SP	S/L/S	5Y 7/2 light gray coarse SAND/GRANULES, trace fine to medium sand, trace to no silt (saturated) (fining down to medium to coarse sand).								

NOTES:

1. Test boring terminated at 25.0 feet +/- below existing ground surface (b.e.g.s.).
2. Some topsoil removed for previous clearing.
3. Wet-on-spoon at 8.0 feet +/-; water level within the augers at 8.0 feet +/- with the bottom of the augers at 8.0 feet +/- b.e.g.s.
4. Observation Well MW-1 (DNREC ID 212419) installed upon completion.
5. Auger boring performed in general accordance with ASTM D 1452.
6. Split-barrel sampling performed in general accordance with the Method for Penetrative Test and Split-Barrel Sampling (ASTM D 1586).
7. Soil descriptions performed in general accordance with ASTM D 2488, the Practice for Description and Identification of Soils (Visual-Manual Procedure).



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Northing : 83,680 U.S. Meters DE SPC NAD 83
Easting : 218,367 U.S. Meters DE SPC NAD 83

Depth in feet	Surf. Elev. 11.5 ft	GRAPHIC	USCS	USDA	Sample Condition	Water Levels	SAMPLES	Sample Number	Blows per 6 inches	Recovery (ft)	Well Construction Details	WATER LEVEL	Observation Well 212419
					<input checked="" type="checkbox"/> Removed	<input type="checkbox"/> During Drilling							
DESCRIPTION													
14			SP	S/LS				8	WH-2-2-4	1.2			-3.5
16								9A	3-5-5-8	1.5			
18	-5.4							9B					
20								10	WR-WH-2-2	0.8	2" Schedule 40 PVC Screened Well Casing - 0,020 slot		
22			SM	LS/SL				11	2-3-6-7	2.0			
24								12	WR-1-2	1.5			
26								13	2-4-7	1.5			-12.9
	-13.5												-13.5

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