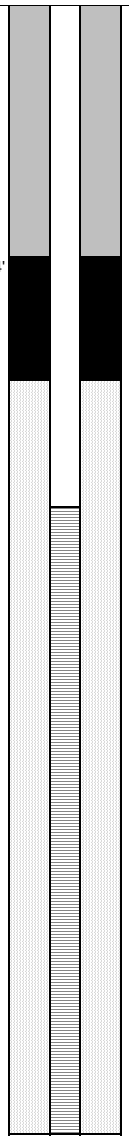
SMITH+GARDNER

Client: **Oconee County Solid Waste Management**		**BORING ID: MW-3R**
Project Number: **Oconee 12-6**		
Site Location: **15030 Wells Highway, Seneca, South Carolina**		
Boring Location: **Seneca Landfills Facility**		*Sheet:* **1** *of* **1**
Drilling Method: **Solid-Stem Auger**		*Monitoring Well Installed:* **Yes**
Sample Type(s): **Soil Cuttings**	*Boring Diameter:* **4 Inches**	*Screened Interval:* **8' - 18'**
Weather: **Clear, hot**	*Logged By:* **B. Ransom**	*Date Started:* **9/10/14**	*Depth of Boring:* **18'**
Drilling Contractor: **Elite Techniques, Inc.**	*TOC Elevation:* **NA**	*Date Finished:* **9/10/14**	*Water Level:* **9'**

Depth (ft)	Sample Depth (ft)	Lab Sample ID	Lab Sample Depth (ft)	Odor	Headspace (ppm)	U.S.C.S	**MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)**
1							GS - 1.0': Grass and topsoil.
2							1.0' - 5.0': Orange, sandy SILT.
3							
4							
5							
6							5.0' - 10.0': Orange, clayey SILT, micaceous.
7							
8							
9							
10							
11							10.0' - 15.0': Orange/brown, clayey SILT with sand (saprolite), micaceous, wet.
12							
13							
14							
15							
16							15.0' - 18.0': Same as above, saturated.
17							
18							
19							Boring terminated by field personnel at 18.0' below ground surface.
20							

Monitoring Well Construction Details



NOTES:
Monitoring well casing and screen constructed of 2" diameter PVC.
Screen slot size is 0.01 inch.

Date	Time	Depth to groundwater while drilling
9/10/14		9' below ground surface

Checked by _____ Date: _____

GOLDIE & ASSOCIATES

Environmental Services

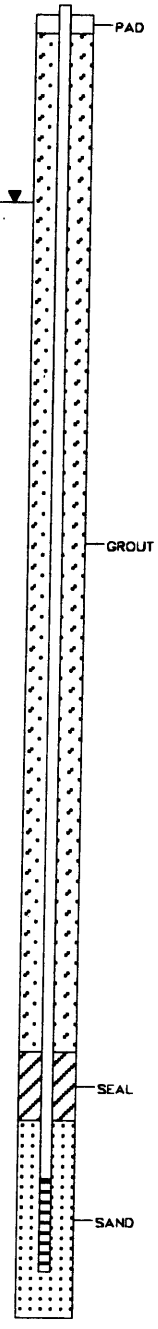
LOG OF BORING MW-3d

Seneca Landfill
Ground Water Well Installation
Assessment Phase II
Oconee County, SC

Project Name	: Seneca LF	Start Date	: 11-17-97
Project	: 22.9.9	End Date	: 12-5-97
Logged By	: DRD	Drilling Method	: Hollow Stem Auger
Driller	: A&E	Top of Casing (MSL)	: 763.72

Well: MW-3d
ELEV: 760.82-pad

Depth In Feet	DESCRIPTION	USCS	Samples	Blows/Ft
0	Except where noted, soil descriptions based on 1994 boring HP-11 which was appx 20 feet from this well location			
5	Olive Yellow Sandy SILT	ML	1	16
10	**WATER @10.0'** after construction Yellowish Brown Sandy SILT		2	8
15	Pale Brown Silty SAND		3	34
20	Yellowish Brown Silty SAND		4	130
25				
30	Brownish Yellow Silty Fine to Medium SAND		5	74
35	Yellowish Brown Silty Fine SAND		6	117
40		SM		
45	Light Brown Silty Fine SAND		7	100
50				
55	Olive Silty Fine SAND (from 11/97 cuttings)			
60	Olive Silty Fine SAND (from 11/97 cuttings)			
65	Olive Silty Fine SAND (from 11/97 cuttings)			
70	Olive Silty Fine SAND (from 11/97 cuttings) **AUGER REFUSAL @70' - 11/97**			
75				



WELL CASING
Material: Sch40 PVC
Diameter: 2 inch
Screen: 0.010 slot
Screen: 62.5 to 67.5
Joints: Flush Threaded
Bottom Cap: Slip Cap

ANNULUS
59.4 to 70.0 ft
Sand:
250 lbs
Sand
55.7 to 59.4 ft
Bentonite Seal:
25 lbs
HOLE PLUG 3/8
0 to 55.7 ft
Grout: 250 lbs
Bent. Grout
Surface Pad:
3'x3'x4"
Concrete Pad

NOTES
* Casing and Screen Factory Precleaned
* Drilling Equip. was Steamed Cleaned prior to Drilling this well

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10-28-1

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Oconee County Solid Waste Department (last) (first)
Address: 15028 Wells Highway
City: Seneca State: SC Zip:
Telephone: Work: (864) 888-1440 Home:

2. LOCATION OF WELL: COUNTY: Oconee
Name: Oconee County Landfill
Street Address: 15028 Wells Highway
City: Seneca Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☐ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red to Brown Clayey, Sandy, Silt	5	5
Tan to Brown Sandy, Silt	25	30
Weak, Partially Weathered Rock	15	45
Partially Weathered Rock	8	53
Rock	65	118
Fracture Noted Between 80-85 feet		
Boring Terminated at 118 feet BGS		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-3D3

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 04/011/2011
118.00 ft. Date Completed: 04/12/2011

10. CASING: ☑ Threaded ☐ Welded
Diam.: 6/2-Inches
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
6 in. to 56.50 ft. depth
2 in. to 108.00 ft. depth
Height: Above ☑ Below ☐
Surface 3.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Sched. 40 Diam.: 2-Inches
Slot/Gauge: 0.010-Inch Length: 10.00
Set Between: 108.00 ft. and 118.00 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 106.00 ft. to 118.00 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 0.00 ft. to 106.00 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Brendan M. Brodie CERT. NO.: 1372
Address: (Print) Level: A B C D (circle one) ☐ ☑ ☐ ☐
EarthCon, Inc. 3440 Augusta Road,
Greenville. SC 29605
Telephone No.: 864-331-5143 Fax No.: 864-236-9097

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 4/18/2011
Well Driller

If D Level Driller, provide supervising driller's name:
Brendan M. Brodie #1372

TEST BORING RECORD AND WELL CONSTRUCTION DIAGRAM

MONITORING WELL NO. MW-3D3

DEPTH (feet)	SOIL CLASSIFICATION	SAMPLE DEPTH
	Saprolite - Silt, sandy, loose, very micaceous, laminated light brown, dry	X
		X
		X
		X
5		X
	Saprolite - Silt, sandy, loose, very micaceous, laminated tan/ brown, dry to approx. 20 feet	X
		X
		X
		X
10		X
		X
		X
		X
		X
15		X
		X
		X
		X
		X
20		X
		X
		X
		X
		X
25		X
		X
		X
		X
		X
30		X
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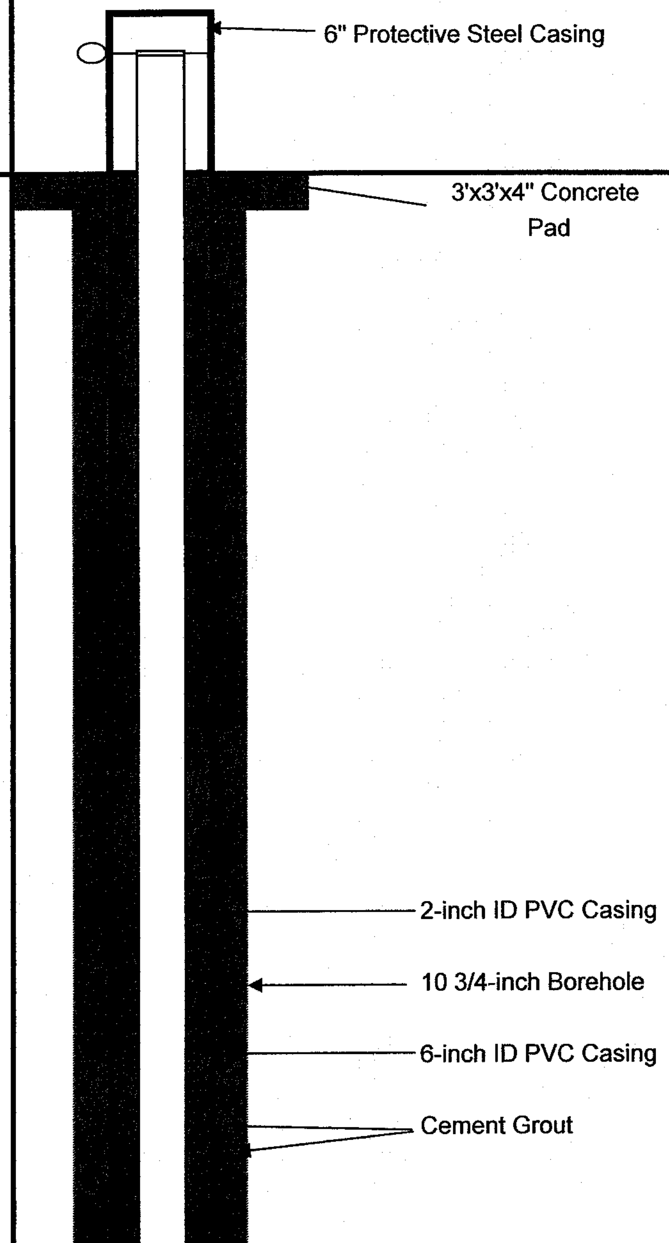


Water Table: ~20 ft
Well Diameter: 2 in
Sample Method: Cuttings
Logged By: Michael E. Glowacz, P.G.

Project: Oconee County Seneca Landfill
Date Drilled: 4/11/11
Drilling Methods: Air Rotary
Driller: EarthCon, Inc. (B. Brodie, #1372)

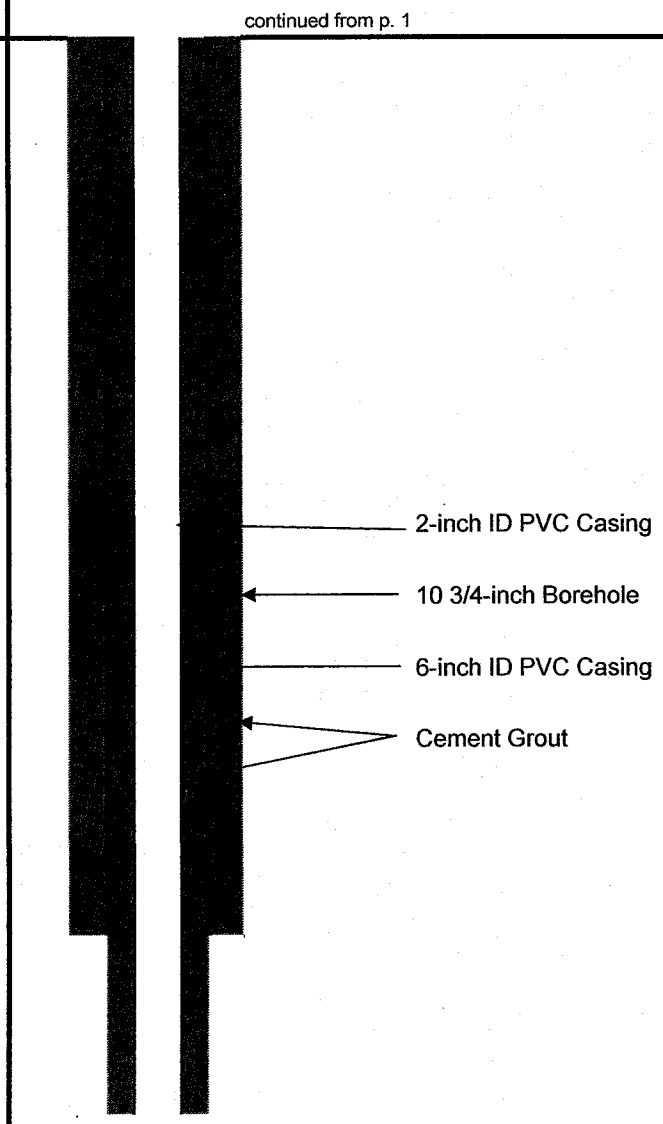
bpb

5/16/2011

TEST BORING RECORD AND WELL CONSTRUCTION DIAGRAM

MONITORING WELL NO. MW-3D3

DEPTH (feet)	SOIL CLASSIFICATION	SAMPLE DEPTH	WATER TABLE
	Partially weathered bedrock, saprolite	X	
		X	
		X	
		X	
35		X	
		X	
		X	
		X	
		X	
40		X	
		X	
		X	
		X	
		X	
45		X	
		X	
		X	
		X	
50		X	
		X	
		X	
		X	
		X	
55		X	
		X	
		X	
		X	
		X	
60		X	
	continued on p. 3		



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bpb

5/16/2011

TEST BORING RECORD AND WELL CONSTRUCTION DIAGRAM

MONITORING WELL NO. MW-3D3

continued from p. 2

DEPTH (feet)	SOIL CLASSIFICATION	SAMPLE DEPTH
	Partially weathered bedrock, saprolite	X
		X
		X
		X
65		X
	Bedrock - Quartz biotite gneiss	X
		X
		X
		X
70		X
		X
		X
		X
		X
75		X
		X
		X
		X
		X
80	Highly productive fracture zone at 80 feet	X
		X
		X
		X
		X
85		X
		X
		X
		X
		X
90		X

Cement Grout

2-inch ID PVC Casing

continued on p. 4

Water Table: ~20 ft
Well Diameter: 2 in
Sample Method: Cuttings
Logged By: Michael E. Glowacz, P.G.

Project: Oconee County Seneca Landfill
Date Drilled: 4/11/11
Drilling Methods: Air Rotary
Driller: EarthCon, Inc. (B. Brodie, #1372)

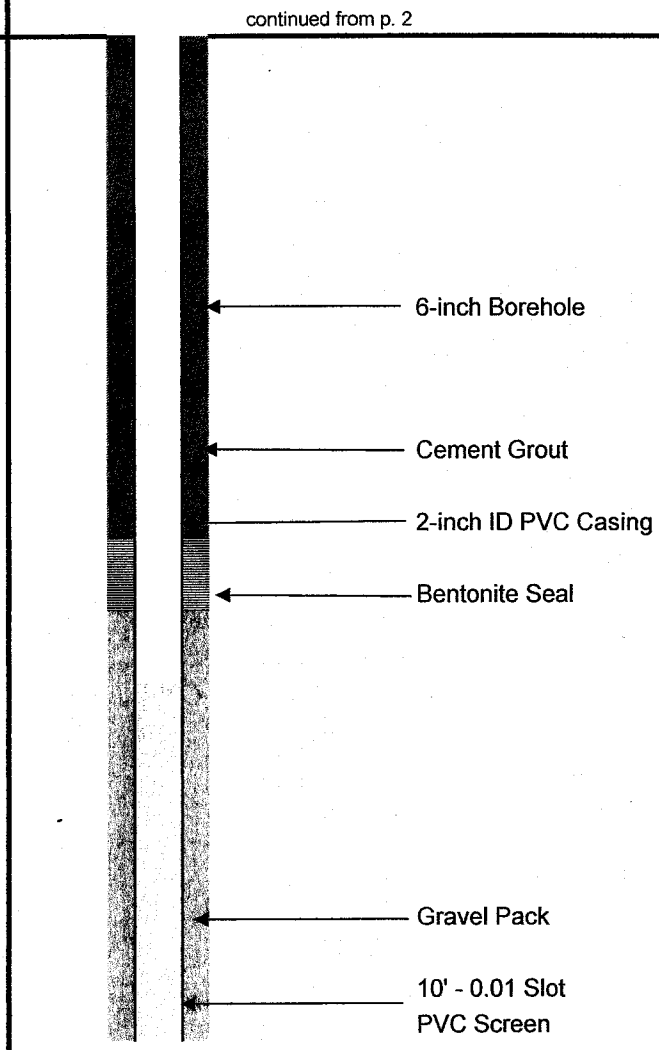
bpb

5/16/2011

TEST BORING RECORD AND WELL CONSTRUCTION DIAGRAM

MONITORING WELL NO. MW-3D3

DEPTH (feet)	SOIL CLASSIFICATION	SAMPLE DEPTH
	Bedrock - Quartz biotite gneiss	X
		X
		X
		X
95		X
		X
		X
		X
		X
100		X
		X
		X
		X
105		X
		X
		X
		X
110		X
		X
		X
		X
		X
115		X
		X
		X
		X
	TD = 118 feet	
120		



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