



**Field Services  
Preliminary Data  
Seminole State Forest Brantley Branch Rd**

**Aquifer System Monitor Wells:  
Surficial L-0814  
Intermediate L-0815  
Floridan L-0816  
Floridan L-0817**

**Floridan Supply Well**

**SJRWMD Program No. 31-58200**

**Division of Ground Water Programs,  
Department of Resource Management  
St. Johns River Water Management District  
Palatka, Florida**

**June 5, 2002**

*This report was generated for the Division of Ground Water Program's use.  
All data, figures, tables and information are provisional.*

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## **General Information**

**Site:** Seminole State Forest Brantley Branch Rd.

**Access:** License Agreement with the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida.

**Service Request:** Brian McGurk, Division of Ground Water Programs

**Purpose:** Groundwater model data for Division of Needs and Sources and District Observation Well Network Floridan Potentiometric Surface

**Data Collection:** Rob Brooks and Laura Nelms

**Report:** Robert Brooks

### **Work:**

**Surficial & Intermediate Monitor Well Construction**  
Huss Drilling Inc.

**Floridan Monitor Well & Supply Well Construction**  
Southern Well Services Inc.

**Geophysical Logs**  
SJRWMD

**Video Survey**  
Deep Venture  
Hausinger & Associates

### **Notes:**

#### **Surficial L-0814**

11/02/01. Well completed. Constructed using mud rotary drilling method.

#### **Intermediate L-0815**

10/31/01. Drill testhole to 91-ft bls. Collect SPT's and cores; 2-shelby's attempted with no return; water table penetrated at ~25-ft bls. Testhole abandoned.

11/01/01. Drill intermediate well to 60 ft bls; rod breaks at ~40-ft. Unable to retrieve 20-ft of drill pipe and 8-inch rock bit. Borehole back plugged to surface with grout.

11/08/01. Well completed. Constructed using mud rotary drilling method.

#### **Floridan L-0816**

04/10/02. Well completed. Constructed using mud rotary drilling method.

**Floridan L-0817**

- 01/03/02. Drilling begins.
- 01/14/02 through 02/01/02: Backplug dredging zone of highly fractured dolomite (See grout table).
- 02/27/02. Drilling depth at 1,255-ft. Pin breaks in drill collar at 1,175-ft. Trip out, 3-collars and the bit remain in hole.
- 02/28/02. Video log. Top of collars at 1,175-ft.
- 03/04/02. SWSI retrieves collars with fishing tool.
- 03/11/02. Video log. Highly fractured dolomite zone (1,234-1,247 ft). Logger stops video survey at 1,247-ft due to conditions of hole.
- 03/13/02. Geophysical log to 1,247-ft. Trip in drill rods to 1,275-ft.
- 03/14/02. Log through rods to 1,595-ft. Down hole sample at 1,595-ft. Chlorides (3,025 mg/l) short of target chlorides (5,000 mg/l).
- 03/18-21/02. Replace fuel pump and compressor on drill rig.
- 03/22/02. Resume drilling. Mix discharge water with water from supply well to keep chloride level below 1,000 mg/l.
- 03/25/02. Mixed discharge chloride level (1,842 mg/l) exceeds 1,000 mg/l. Stop drilling (1,620-ft).
- 04/25/02. Well completed. Constructed using mud rotary and reverse air drilling methods.

**Floridan Supply Well**

- 12/18/01. Constructed using mud rotary drilling method. Cased to 140-ft with 5-inch PVC. Total depth 220-ft. Well donated (by SWSI) to Seminole State Forest for public use.

## Table of Contents

Site Location

As-built Diagrams

Groundwater Levels

Drilling Data

Groundwater Quality/Development

Groundwater Quality/Field Samples

Groundwater Quality/Downhole Sample

Grout Data

Split Spoon Samples

Lithologic Description

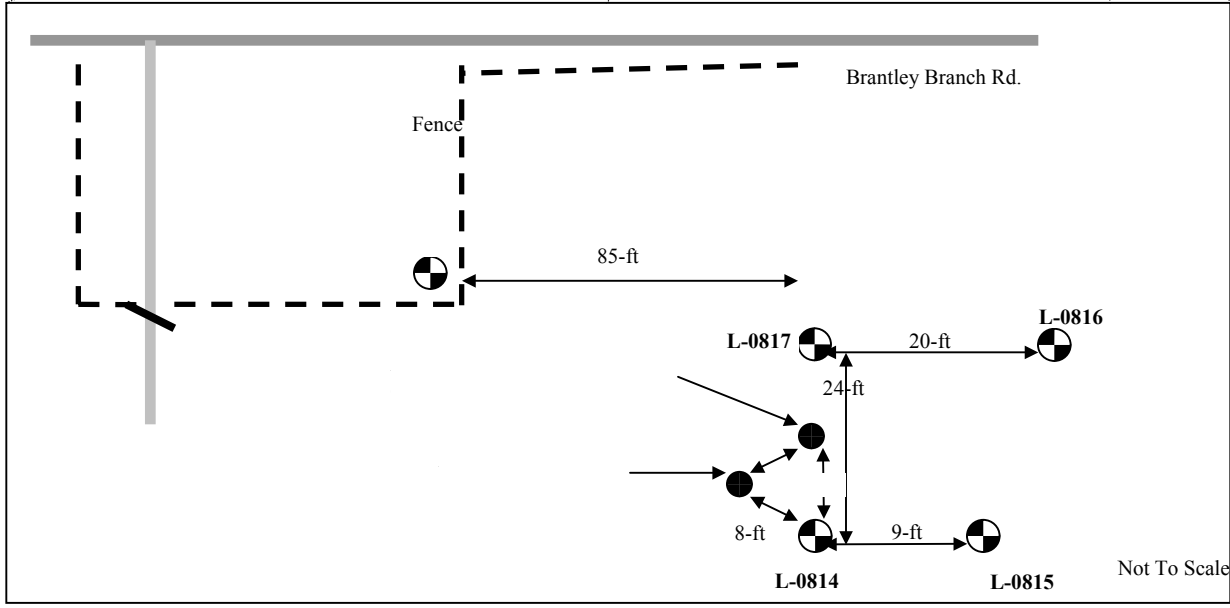
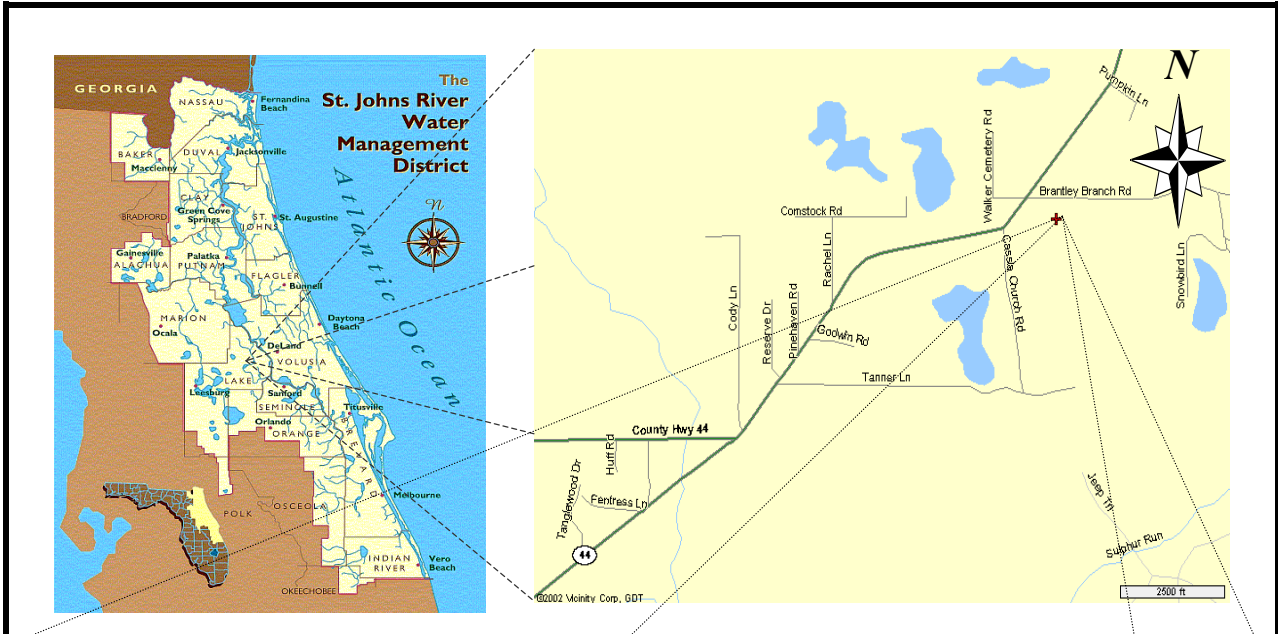
Video Logs

Permeability

Geophysical Logs

Appendix

    Specific Capacity Data

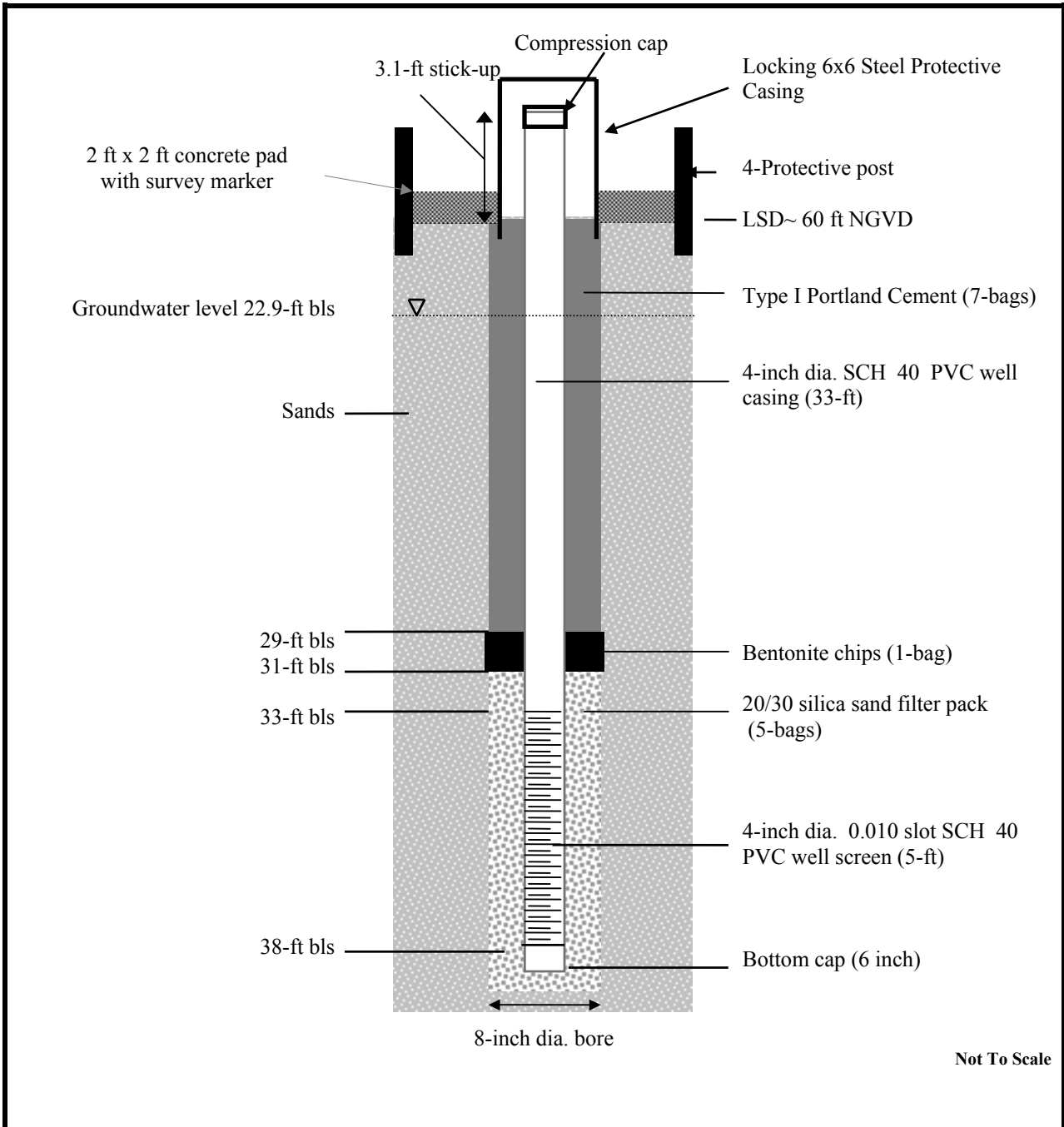


<b>Site:</b>	Seminole State Forest Brantley Branch Rd
<b>GPS Lat/Long:</b>	285327/812736
<b>TRS:</b>	18s 28e 25
<b>Topo:</b>	Pine Lakes
<b>Site Elevation:</b>	60 ft NGVD

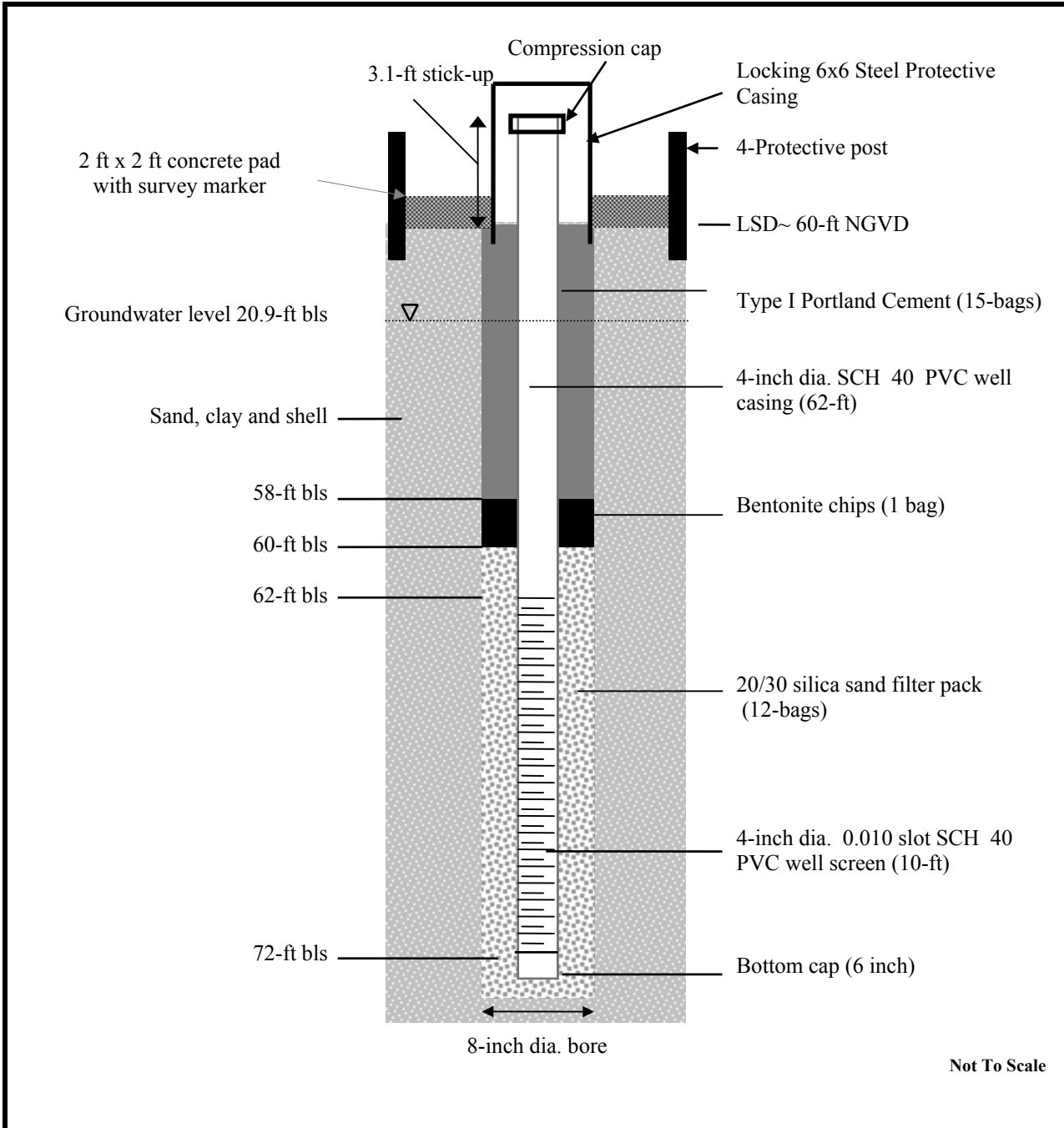
# SJRWMD

<b>Project No:</b>	31-58200
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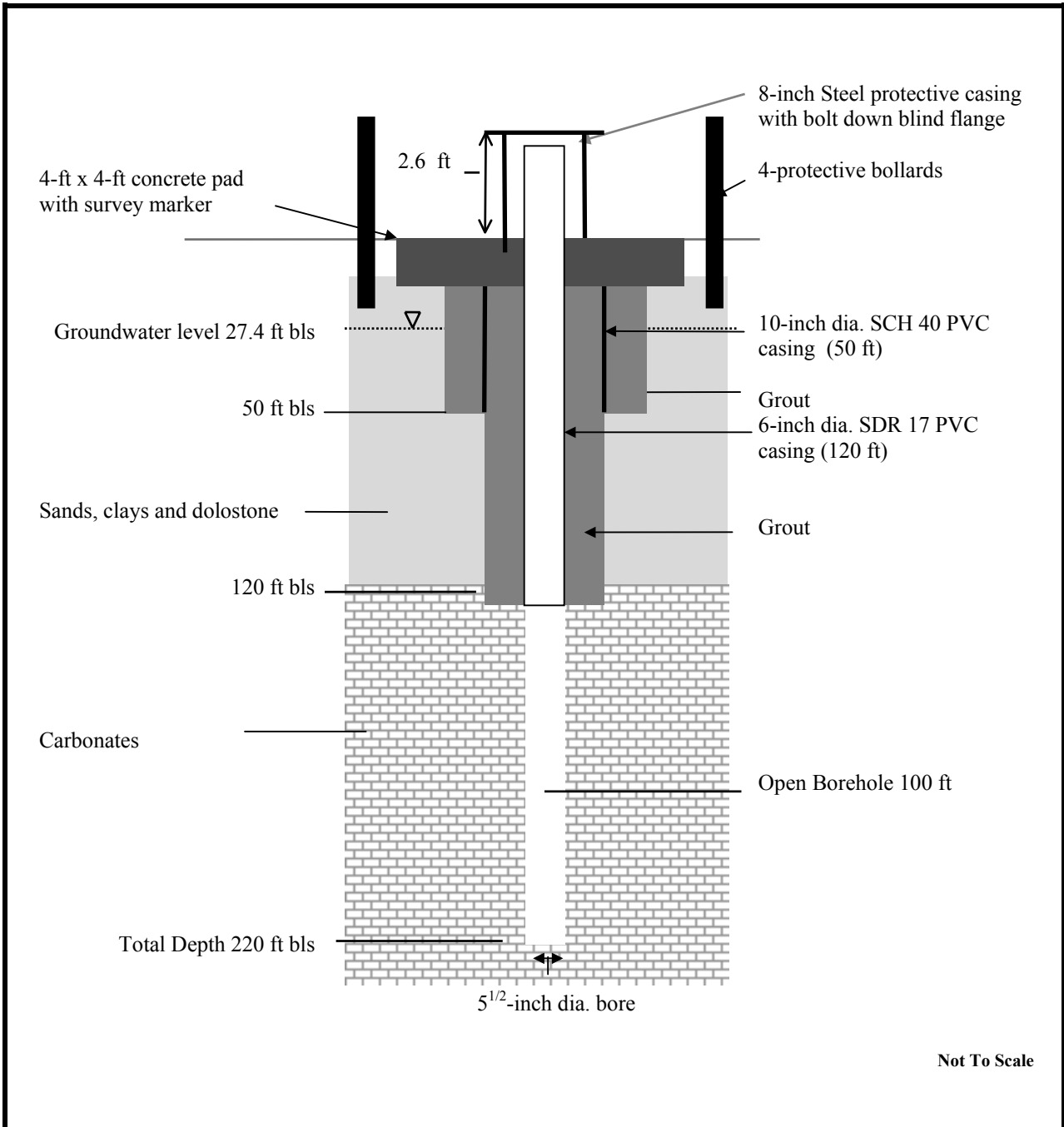
**Figure 1. Site Map**



<b>Site:</b>	Seminole State Forest Brantley Branch Rd	<b>SJR WMD</b>
<b>Driller:</b>	Huss Drilling, Inc	
<b>Well Completed:</b>	November 2, 2001	<b>Figure 2. Surficial Monitor Well L-0814</b>

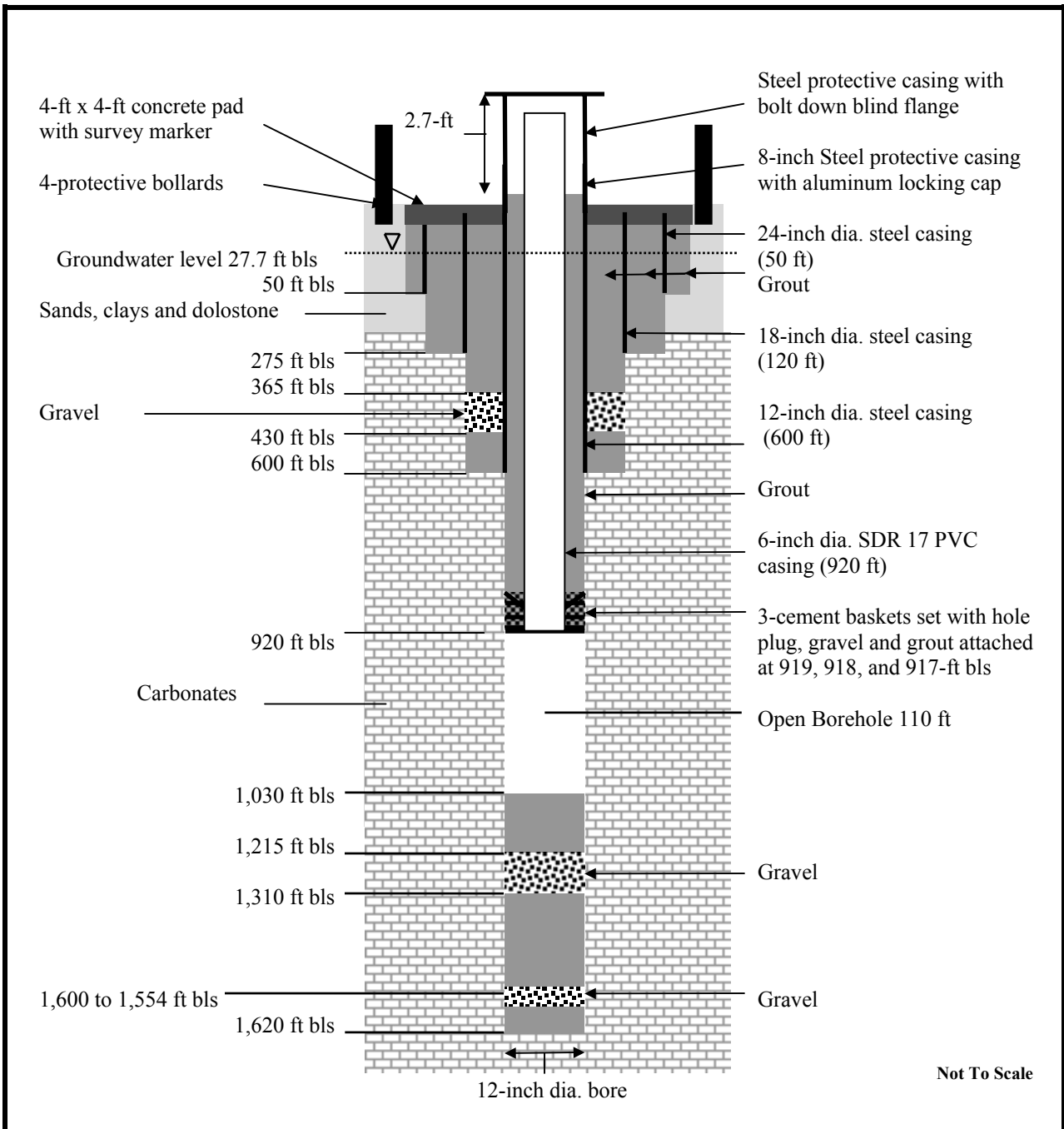


<b>Site:</b>	Seminole State Forest Brantley Branch Rd	<b>SJRWMD</b>
<b>Driller:</b>	Huss Drilling, Inc	
<b>Well Completed:</b>	November 9, 2001	<b>Figure 3. Intermediate Monitor Well L-0815</b>

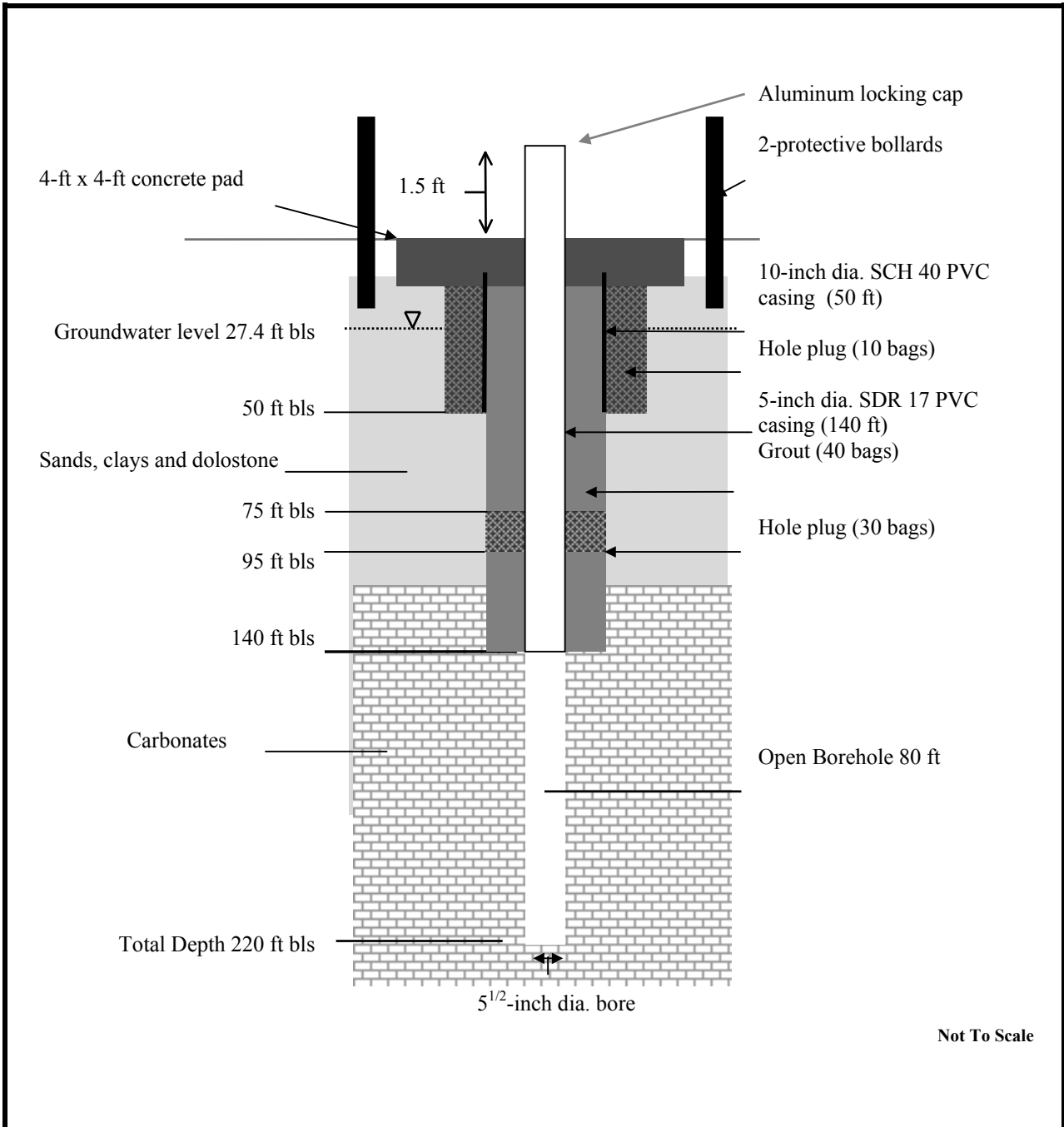


<b>Site:</b>	Seminole State Forest Brantley Branch Rd	<b>SJRWMD</b>
<b>Driller:</b>	Southern Well Services	
<b>Well Completed:</b>	April 10, 2002	<b>Figure 4. Floridan Monitor Well L-0816</b>





<b>Site:</b>	Seminole State Forest Brantley Branch Rd	<b>SJRWMD</b>
<b>Driller:</b>	Southern Well Services	
<b>Well Completed:</b>	April 25, 2002	<b>Figure 5. Floridan Monitor Well L-0817</b>



<b>Site:</b>	Seminole State Forest Brantley Branch Rd	<b>SJRWMD</b>
<b>Driller:</b>	SWSI	
<b>Well Completed:</b>	December 18, 2001	<b>Figure 6. Floridan Supply Well</b>

**Table 1. Groundwater Levels**

**Site:** Seminole State Forest Brantley Branch Rd

**Well ID:** L-0817

Water Levels				Borehole	
Static ✓	Date/Time (yyymmdd/hhmm)	Casing (ft, bls)	Rod (ft, bls)	Total Depth (ft, bls)	Open Hole (ft)
✓	020110/0715	26.3	26.3	310	190
	020110/1045	26.85	27.45	343	223
	020110/1255	33.3	28.4	373	253
✓	020205/0730	26.0	-	437	317
	020205/1155	27.0	-	467	347
	020205/1315	-	26.7	467	347
✓	020206/0730	26.0	-	475	355
	020206/1040	26.9	29.8	498	378
	020206/1220	26.8	26.3	527	407
	020206/1340	26.7	26.4	559	439
	020206/1545	26.7	26.4	590	470
✓	020220/0700	25.7	25.8	650	50
	020220/1100	29.2	29.2	681	81
	020220/1312	30.1	30.0	713	113
	020220/1520	30.5	31.0	743	143
	020220/1750	30.8	31.6	775	175
✓	020221/0700	25.9	26.2	805	205
	020221/0950	28.8	28.3	835	235
	020221/1320	26.1	26.2	865	265
	020221/1620	27.0	27.0	895	295
	020221/1922	27.9	28.2	927	327
✓	020222/0605	25.8	27.2	935	335
	020222/0815	26.6	27.7	959	359
	020222/1150	26.8	27.8	990	390
✓	020225/1155	26.0	24.7	990	390
	020225/1525	26.2	29.2	1,021	421
	020225/1850	26.1	31.7	1,052	452
✓	020226/0800	25.7	26.8	1,081	481
	020226/1125	26.2	26.9	1,112	512
	020226/1355	26.4	26.1	1,142	542
	020226/1520	26.4	26.6	1,173	573
	020226/1635	25.7	26.9	1,205	605
	020226/1805	26.2	25.8	1,235	635
	020226/2100	25.9	26.9	1,255	655
✓	020227/0740	25.6	26.9	1,255	655

**Table 1. Groundwater Levels**

**Site:** Seminole State Forest Brantley Branch Rd

**Well ID:** L-0817

Water Levels				Borehole	
Static ✓	Date/Time (yymmdd/hhmm)	Casing (ft, bls)	Rod (ft, bls)	Total Depth (ft, bls)	Open Hole (ft)
	020227/1155	26.2	26.9	1,262	662
	020305/1325	26.6	28.4	1,270	670
	020305/2010	26.4	29.0	1,300	700
✓	020306/0745	26.0	27.6	1,300	700
	020306/0930	26.8	28.8	1,331	731
	020306/1150	26.2	27.3	1,359	759
	020306/1725	26.5	27.3	1,392	792
	020306/2040	26.4	28.3	1,424	824
✓	020307/0705	25.8	27.5	1,424	824
	020307/1015	26.4	27.6	1,455	855
	020307/1425	26.2	28.5	1,485	885
	020307/1725	26.4	25.9	1,518	918
	020307/1930	26.3	26.0	1,550	950
✓	020308/0825	25.9	27.1	1,550	950
	020308/1140	25.9	28.3	1,580	980
✓	020311/1215	26.3	-	1,595	995
✓	020312/1100	26.3	-	1,595	995
✓	020314/1200	26.4	-	1,595	995
✓	020318/1305	26.6	29.8	1,595	995
✓	020325/1050	26.8	32.2	1,617	1,017
	020325/1400	26.4	31.7	1,620	1,020

**Table 2. Drilling Data**Site: Seminole State Forest Brantley Branch RdWell ID: L-0817Hydrologist: R. Brooks

Date (yymmdd)	From (ft, bls)	To (ft, bls)	Method Mud/ Rev Air	Bit Size (inch)	Time (min)	Rate (ft/hr)	Comments
020104	0	50	Mud	30	-	NR	
020105	50	120	Mud	24	-	NR	
020109	120	135	Mud	18	-	NR	
020109	135	187	Mud	18	118	23	
020109	187	216	Mud	18	40	43.5	
020109	216	249	Mud	18	40	49.5	
020110	249	310	RA	18	NR	NR	
020110	310	343	RA	18	50	39.6	
020110	343	373	RA	18	80	22.5	
020111	373	404	RA	18	NR	NR	Start dredging at 390-ft (highly fractured dolomite)
020114	404	404	-	-	-	-	Backplug dredging zone
020123	395	395	-	-	-	-	Backplug dredging zone
020124	395	432	RA	8	NR	NR	Drill out with 8-inch bit; Backplug dredging zone
020125	401	401	-	-	-	-	Backplug dredging zone
020128	401	401	-	-	-	-	Backplug dredging zone
020129	394	394	-	-	-	-	Backplug dredging zone
020130	392	392	-	-	-	-	Backplug dredging zone
020201	389	420	Rev	18	NR	NR	Drill out; dredge 404 to 420-ft Backplug dredging zone
020204	420	447	Rev	18	NR	NR	Dredging stops at 420-ft
020205	447	467	Rev	18	205	6	
020205	467	475	Rev	18	NR	NR	
020206	475	498	Rev	18	140	10	
020206	498	527	Rev	18	70	25	
020206	527	559	Rev	18	60	32	
020206	559	590	Rev	18	90	21	
020206	590	600	Rev	18	35	17	
020220	600	645	Rev	11 <sup>7/8</sup>	NR	NR	
020220	645	681	Rev	11 <sup>7/8</sup>	120	18	
020220	681	713	Rev	11 <sup>7/8</sup>	108	18	
020220	713	743	Rev	11 <sup>7/8</sup>	102	18	
020220	743	775	Rev	11 <sup>7/8</sup>	125	15	
020220	775	805	Rev	11 <sup>7/8</sup>	190	9	
020221	805	835	Rev	11 <sup>7/8</sup>	125	14	

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**Table 2.****Drilling Data**Site: Seminole State Forest Brantley Branch RdWell ID: L-0817Hydrologist: R. Brooks

Date (yymmdd)	From (ft, bls)	To (ft, bls)	Method Mud/ Rev Air	Bit Size (inch)	Time (min)	Rate (ft/hr)	Comments
020221	835	865	Rev	11 <sup>7/8</sup>	160	11	
020221	865	895	Rev	11 <sup>7/8</sup>	100	18	
020221	895	927	Rev	11 <sup>7/8</sup>	150	13	
020221	927	935	Rev	11 <sup>7/8</sup>	50	10	
020222	935	959	Rev	11 <sup>7/8</sup>	90	16	
020222	959	990	Rev	11 <sup>7/8</sup>	180	10	
020225	990	1,021	Rev	11 <sup>7/8</sup>	150	12	
020225	1,021	1,052	Rev	11 <sup>7/8</sup>	180	10	
020225	1,052	1,081	Rev	11 <sup>7/8</sup>	NR	NR	
020226	1,081	1,112	Rev	11 <sup>7/8</sup>	160	12	
020226	1,112	1,142	Rev	11 <sup>7/8</sup>	115	16	
020226	1,142	1,173	Rev	11 <sup>7/8</sup>	60	31	
020226	1,173	1,205	Rev	11 <sup>7/8</sup>	55	35	
020226	1,205	1,235	Rev	11 <sup>7/8</sup>	65	28	
020226	1,235	1,255	Rev	11 <sup>7/8</sup>	140	13	Dredge 1,245-ft; soft very fine cuttings
020227	1,255	1,262	Rev	11 <sup>7/8</sup>	200	2	Drill and dredge, soft very fine cuttings; pin breaks in drill collar at 1,175-ft, trip out
020305	1,262	1,270	Rev	11 <sup>7/8</sup>	120	4	Boulder zone and very fine cuttings
020305	1,270	1,300	Rev	11 <sup>7/8</sup>	360	5	Drill-dredge, very fine cuttings stop up rods
020306	1,300	1,331	Rev	11 <sup>7/8</sup>	145	13	Soft formation, drill slow
020306	1,331	1,359	Rev	11 <sup>7/8</sup>	110	15	Soft formation, drill slow
020306	1,359	1,392	Rev	11 <sup>7/8</sup>	130	15	
020306	1,392	1,424	Rev	11 <sup>7/8</sup>	165	12	
020307	1,424	1,455	Rev	11 <sup>7/8</sup>	160	12	
020307	1,455	1,485	Rev	11 <sup>7/8</sup>	220	8	
020307	1,485	1,518	Rev	11 <sup>7/8</sup>	215	9	
020307	1,518	1,550	Rev	11 <sup>7/8</sup>	90	21	
020308	1,550	1,555	Rev	11 <sup>7/8</sup>	20	15	
020308	1,555	1,580	Rev	11 <sup>7/8</sup>	60	25	
020308	1,580	1,595	Rev	11 <sup>7/8</sup>	84	11	Boulder zone
020322	1,595	1,617	Rev	11 <sup>7/8</sup>	480	3	Dredge 1,615 to 1,617
020325	1,617	1,620	Rev	11 <sup>7/8</sup>	95	2	

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**Table 3. Groundwater Quality/Development**Site: Seminole State Forest Brantley Branch RdWell ID: L-0814Hydrologist: R. Brooks, L. NelmsDevelopment Method: Submersible Pump

L A B	Date (yymmdd/hhmm)	Static GWL (ft bls)	Pumping GWL (ft bls)	Rate (gpm)	ΣVol (gal)	Temp (Deg C)	pH	Specific Conductivity (us/cm)	Water Clarity
	011108/1330	21.0	NR	11	-	25.0	8.5	455	
	011108/1410	-	NR	NR	-	26.6	7.8	546	
	011108/1522	-	NR	NR	-	24.1	7.2	472	
	011108/1543	-	NR	NR	-	23.8	7.0	411	
	011108/1555	-	NR	NR	-	23.8	6.9	349	
	011108/1720	-	NR	NR	-	23.3	7.1	297.2	
	011108/1731	-	NR	NR	~75	23.4	6.9	288.9	
	011109/0805	22.9	-	2	-	-	-	-	Cloudy
	011109/0820	-	32.8	2	-	23.3	7.4	231	
	011109/0850	-	NR	2	-	25.0	NR	146	
	011109/0935	-	NR	2	-	25.1	6.6	107	
	011109/1025	-	NR	2	-	25.6	6.5	86	
✓	011109/1105	-	35.0	2	~435	25.8	6.4	85.6	Clear

**Table 4. Groundwater Quality/Development**Site: Seminole State Forest Brantley Branch RdWell ID: L-0815Hydrologist: R. BrooksDevelopment Method: Submersible Pump

L A B ✓	Date (yymmdd/hhmm)	Static GWL (ft bls)	Pumping GWL (ft bls)	Rate (gpm)	ΣVol (gal)	Temp (Deg C)	pH	Specific Conductivity (us/cm)	Water Clarity
	011109/1115	20.9		5	0	-	-	-	Clear
	011109/1125	-	NR	NR	-	24.3	7.7	264	
	011109/1210	-	62	NR	-	24.3	7.7	235	
✓	011109/1245	-	62	NR	450	24.3	7.7	224	Clear

**Table 5. Groundwater Quality/Development**Site: Seminole State Forest Brantley Branch RdWell ID: L-0816Hydrologist: R. BrooksDevelopment Method: Air

L A B	Date (yyymmdd/hhmm)	Static GWL (ft bls)	Pumping GWL (ft bls)	Est. Rate (gpm)	Est. ΣVol (gal)	Temp (Deg C)	pH	Cl (mg/l)	Specific Conductivity (us/cm)	Water Clarity
	020410/1130	NA	NA	350	0	NA	NA	NA	NA	-
	020410/1200	NA	NA	350	9,000	23.7	8.0	-	321	Cloudy
	020410/1215	NA	NA	350	13,500	23.7	8.5	-	316	Clear
	020410/1225	NA	NA	350	16,500	23.6	8.1	-	316	Clear
	020410/1250	NA	NA	350	24,000	23.8	7.7	-	310	Clear
	020410/1315	NA	NA	350	31,500	23.8	7.7	-	310	Clear
✓	020410/1330	NA	NA	350	36,000	23.8	7.7	6.0	310	Clear

**Table 6. Groundwater Quality/Development**Site: Seminole State Forest Brantley Branch RdWell ID: L-0817Hydrologist: R. BrooksDevelopment Method: Submersible Pump

L A B	Date (yyymmdd/hhmm)	Static GWL (ft bls)	Pumping GWL (ft bls)	Rate (gpm)	ΣVol (gal)	Temp (Deg C)	pH	Cl (mg/l)	Specific Conductivity (us/cm)	Water Clarity
	020425/0900	27.65	-		0		-	-	-	-
	020425/0930	-	-	90	2,700	25.8	8.6	-	1,966	Clear
	020425/1000	-	35.05	90	5,400	26.4	8.8	-	1,984	Clear
	020425/1030	-	-	90	8,100	26.4	8.7	-	2,025	Clear
	020425/1100	-	-	90	10,800	26.4	8.5	-	2,043	Clear
	020425/1130	-	-	90	13,500	26.4	8.3	-	2,055	Clear
	020425/1200	-	-	90	16,200	26.5	8.2	-	2,063	Clear
	020425/1230	-	-	90	18,900	26.5	8.1	-	2,070	Clear
	020425/1300	-	-	90	21,600	26.5	8.0	-	2,072	Clear
	020425/1330	-	-	90	24,300	26.5	8.0	-	2,080	Clear
✓	020425/1400	-	35.08	90	27,000	26.5	8.0	340	2,080	Clear

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**Table 7. Groundwater Quality/Field Samples**

Site: Seminole State Forest Brantley Branch Rd

Well ID: L-0817

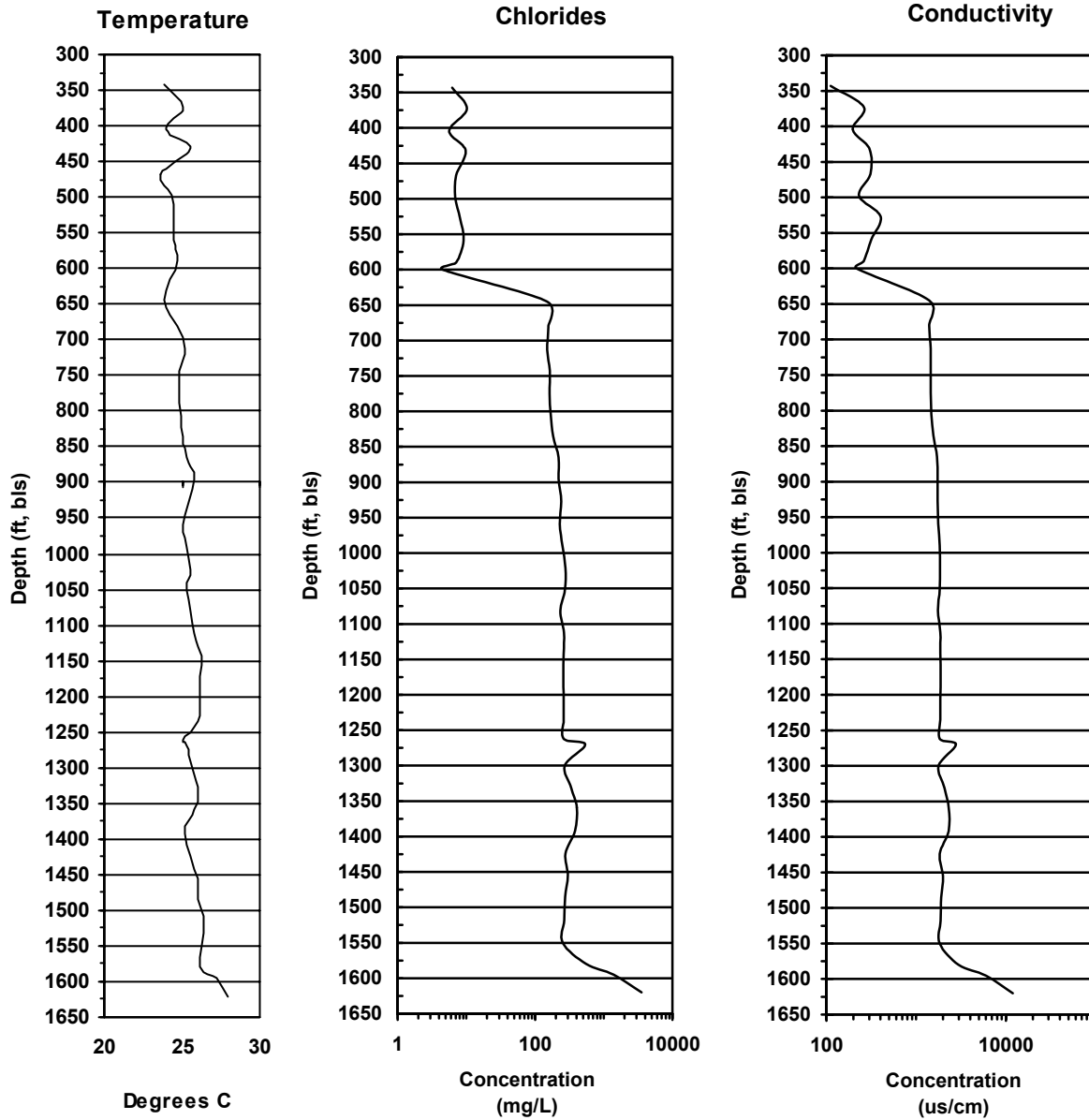
Hydrologist: R. Brooks, L. Nelms

LAB ✓	Date/Time (yymmdd/hhmm)	Sample Depth (ft, bls)	Open Hole (ft)	Temp (Deg C)	Chlorides (mg/L)	Specific Conductivity (us/cm)	Comments
	020110/1118	343		23.8	6.2	111	
	020110/1340	373		25.1	10.2	261	
	020111/1310	404		24.0	5.6	197	
	020124/1205	432		25.6	9.8	302	
	020205/1145	467	347	23.6	7.1	310	
	020206/1025	498	378	24.3	6.9	232	
	020206/1215	527	407	24.5	8.1	402	
	020206/1340	559	439	24.5	9.1	318	
	020206/1520	590	470	24.7	7.1	259	
	020206/1725	600	480	-	4.5	216	
✓	020219/1825	645	45	23.8	150	1,399	Sample collected after specific capacity test
	020220/1045	681	81	24.7	156	1,395	
	020220/1305	713	113	25.2	150	1,453	
	020220/1510	743	143	24.8	164	1,453	
	020220/1745	775	175	24.8	162	1,453	
	020220/2105	805	205	-	170	1,471	
	020221/0815	835	235	25.1	184	1,554	
	020221/1250	865	265	25.3	220	1,715	
	020221/1615	895	295	25.8	220	1,738	
	020221/1912	927	327	-	240	1,734	
	020222/0815	959	359	25.0	230	1,761	
	020222/1135	990	390	25.3	250	1,830	
	020225/1445	1,021	421	25.6	276	1,850	
	020225/1845	1,052	452	25.3	272	1,830	
	020225/	1,081	481	-	234	1,744	Sample collected 020225, analyzed 020226
	020226/1120	1,112	512	25.8	264	1,856	
	020226/1350	1,142	542	26.3	260	1,861	
	020226/1515	1,173	573	26.2	258	1,868	
	020226/1630	1,205	605	26.1	262	1,854	
	020226/1800	1,235	635	26.0	261	1,856	
	020227/1130	1,262	662	25.1	262	1,830	
	020305/1320	1,270	670	25.3	540	2,785	Well static for 5-days before drilling resumed

**Table 7.****Groundwater Quality/Field Samples****Site:** Seminole State Forest Brantley Branch Rd**Well ID:** L-0817**Hydrologist:** R. Brooks, L. Nelms

<b>LAB</b> ✓	<b>Date/Time</b> (yyymmdd/hhmm)	<b>Sample</b> <b>Depth</b> (ft, bls)	<b>Open</b> <b>Hole</b> (ft)	<b>Temp</b> (Deg C)	<b>Chlorides</b> (mg/L)	<b>Specific</b> <b>Conductivity</b> (us/cm)	<b>Comments</b>
	020305/2000	1,300	700	-	272	1,772	Sample collected 020305, analyzed 020306
	020306/0930	1,331	731	26.0	336	2,077	
	020306/1140	1,359	759	25.8	404	2,305	
	020306/1715	1,392	792	25.2	384	2,305	
	020306/2015	1,424	824	-	276	1,835	Sample collected 020306, analyzed 020307
	020307/1005	1,455	855	26.0	300	1,999	
	020307/1415	1485	885	26.0	274	1,900	
	020307/1720	1,518	918	26.4	266	1,875	
	020307/1930	1,550	950	-	252	1,828	
	020308/1145	1,580	980	26.2	554	2,974	
	020307/1400	1,595	995	27.2	1,390	6,008	
	020325/1315	1,620	1,020	28.0	3,560	11,980	

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<b>Site:</b>	Seminole State Forest Brantley Branch Rd	<b>SJRWMD</b>  <b>Figure 7. Groundwater Quality/Field Samples Floridan Monitor Well L-0817</b>
<b>Driller:</b>	Southern Well Services	
<b>Well Completed:</b>	April 25, 2002	

**Table 8. Groundwater Quality/Down Hole Sample**

**Site:** Seminole State Forest Brantley Branch Rd

**Well Number:** L-0817

**Hydrologist:** RR. Brooks

<b>LAB ✓</b>	<b>Date/Time (yymmdd/hhmm)</b>	<b>Sample Depth (ft, bls)</b>	<b>Open Hole (ft)</b>	<b>Temp (Deg C)</b>	<b>Chlorides (mg/L)</b>	<b>Specific Conductivity (us/cm)</b>
	020207/1255	335	115	23.4	7.0	604
	020207/1312	380	260	23.8	8.1	247
	020207/1333	600	480	24.0	8.1	230
	020313/1605	1,595	995	26.7	2,950	10,530
	020314/0937	1,290	690	24.5	1,418	5,720
	020314/1005	1,400	700	24.6	2,920	10,210
	020314/1033	1,550	950	25.4	2,950	10,330
	020314/1115	1,595	995	25.5	3,025	10,670
	020314/1150	1,345	745	25.5	1,460	5,830
	020327/1315	1,632	1,032	26.6	3,960	11,920

Comments: Down hole sampler recorded total depth of hole 1,632-ft; recorded drilled depth 1,620-ft.

**Table 9.****Grout Data**Site: Seminole State Forest Brantley Branch RdWell ID: L-0816

<b>DATE</b>	<b>TAG DEPTH (ft)</b>	<b>ANNULUS/ BORE (inch)</b>	<b>QUANTITY (yds/bags)</b>	<b>MATERIAL</b>	<b>COMMENTS</b>
04/08/02	50	B-16	20 bags	Grout	Set and grout 50-ft of 10-inch PVC casing
04/09/02	120	B-10	18 bags	Grout	Pressure grout 120-ft of 6-inch dia. SDR 17 casing
4/10/02	20	A-10	4 bags	Grout	Casing grouted to surface

**Table 10.****Grout Data**Site: Seminole State Forest Brantley Branch RdWell ID: L-0817

DATE	TAG DEPTH (ft)	ANNULUS/BORE (inch)	QUANTITY (yds/bags)	MATERIAL	COMMENTS
01/04/02	50	B-30	60 bags	Grout	Pressure grout 50-ft of 24-inch dia. steel casing
01/05/02	120	B-24	50 bgs	Grout	Pressure grout 120-ft of 18-inch dia. steel casing
01/07/02	40	A-24	40 bags	Grout	Grout through tremie pipe
01/14/02	404	B-18	7 yds	Grout	Backplug dredging zone
01/21/02	395	B-18	-	-	Tag only
01/23/02 am	404	B-18	8 yds	Grout	Backplug dredging zone
01/23/02 pm	395	B-18	8 yds	Grout	Backplug dredging zone
01/24/02	395	B-18	--	-	Drill out with 8-inch bit to 432-ft; dredge
01/24/02	432	B-8	8 yds	Grout	Backplug dredging zone
01/25/02	401	B-8	8 yds	Grout	Backplug dredging zone
01/28/02	401	B-8	200 bags	Grout	Backplug dredging zone
01/29/01 am	394	B-18	200 bags	Grout	Backplug dredging zone
01/29/01 pm	394	B-18	200 bags	Grout	Backplug dredging zone
01/30/02 am	392	B-18	100 bags	Grout	Backplug dredging zone
01/30/02 pm	392	B-18	100 bags	Grout	Backplug dredging zone
01/31/02 am	390	B-18	100 bags	Grout	Backplug dredging zone
01/31/02 pm	389	B-18	-	-	Drill out, dredge 404-410-ft
02/01/02	420	B-18	200 bags	Grout	Backplug dredging zone
02/04/02	420	B-18	-	-	Tag only, drill out
02/09/02	600	B-18	200 bags	Grout	Pressure grout 600-ft of 12-inch dia. steel casing with 24-centrailizers
02/12/02 am	430	A-18	17 yds	Gravel	Gravel used in dredging zones
02/12/02 am	365	A-18	25 bags	Grout	Grout through tremie pipe
02/12/02 pm	350	A-18	100 bags	Grout	Grout through tremie pipe
02/13/02 am	280	A-18	100 bags	Grout	Grout through tremie pipe
02/13/02 pm	250	A-18	100 bags	Grout	Grout through tremie pipe
02/14/02 am	215	A-18	100 bags	Grout	Grout through tremie pipe
02/14/02 pm	150	A-18	100 bags	Grout	Grout through tremie pipe
02/15/02 am	100	A-18	60 bags	Grout	Grout through tremie pipe
02/18/02	0	A-18	-	-	Casing grouted to surface

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**Table 10.****Grout Data**Site: Seminole State Forest Brantley Branch RdWell ID: L-0817

DATE	TAG DEPTH (ft)	ANNULUS/BORE (inch)	QUANTITY (yds/bags)	MATERIAL	COMMENTS
3/28/02	1620	B-12	20 bags 12 bags	Holeplug Grout	Set 920-ft of SDR-17 PVC well casing with 3-cement baskets attached at 919, 918, and 917-ft
3/29/02	890	A-12	25 bags	Grout	Grout through tremie pipe
4/01/02	880	A-12	50 bags	Grout	Grout through tremie pipe
4/02/02 am	855	A-12	100 bags	Grout	Grout through tremie pipe
4/02/02 pm	685	A-12	100 bags	Grout	Grout through tremie pipe
4/03/02 am	620	A-12	100 bags	Grout	Grout through tremie pipe
4/03/02 pm	420	A-12	100 bags	Grout	Grout through tremie pipe
4/04/02	100	A-12	50 bags	Grout	Grout through tremie pipe; grout return to surface
4/08/02	1,615	B-12	50 bags	Grout	Back plug
4/09/02	1,600	B-12	100 bags	Grout	Back plug
4/10/02 am	1,600	B-12	6 yds	Gravel	Back plug
4/10/02 am	1,554	B-12	25 bags	Grout	Back plug
4/10/02 pm	1,540	B-12	100 bags	Grout	Back plug
4/11/02 am	1,440	B-12	100 bags	Grout	Back plug
4/11/02 pm	1,390	B-12	100 bags	Grout	Back plug
4/12/02	1,310	B-12	14 yds	Gravel	Back plug
4/12/02	1,215	B-12	25 bags	Grout	Back plug
4/15/02	1,210	B-12	100 bags	Grout	Back plug
4/16/02	1,090	B-12	25 bags	Grout	Back plug
4/17/02	1,160	B-12	75 bags	Grout	Tag lower than previous tag, contractor error, back plug
4/18/02	1,100	B-12	50 bags	Grout	Back plug
4/22/02	1,095	B-12	50 bags	Grout	Back plug
4/23/02	1,070	B-12	25 bags	Grout	Back plug
4/24/02 am	1,050	B-12	20 bags	Grout	Back plug
4/24/02 pm	1,030	B-12	-	-	Final tag on bore

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