Environmental Consultants

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Tampa, FL 33619-2242

813 621-0080
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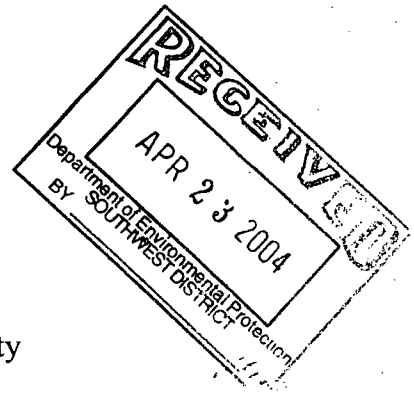
SCS ENGINEERS

April 23, 2004
File No. 09200020.34



Mr. Kim Ford, P.E.
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

Subject: Section 8, SCLF Capacity Expansion, Hillsborough County
Pending Permit No.: 35435-009-SC, Construction
FDEP Responses

Dear Mr. Ford:

On behalf of the Hillsborough County Solid Waste Management Department (SWMD), SCS Engineers (SCS) submits four copies of the following responses to your request for additional information in a letter dated March 10, 2004. For ease of review, each Florida Department of Environmental Protection (FDEP) comment is reiterated in bold type, followed by our response. We are submitting four copies as requested of all information.

We have provided additional information and replacement pages attached to this letter, using a ~~strikethrough~~ and underline format, to facilitate review. We have included the revision date as part of the header/footer for all revised pages and provided an original and three copies of all revised materials.

As requested we are providing a summary of all revisions to drawings, indicating the revision on each of the applicable plan sheets. We have used a consistent numbering system for drawings. Any new sheets added to the original plan set use the same numbering system with a prefix or suffix to indicate the sheet was an addition, e.g. Sheet 1A, 1B, P1-A, etc.

Although some comments did not explicitly request additional information, the intent of all responses was to present revised documents (such as calculations, narrative, technical specifications, QA documentation, plan sheets, etc.), clarification to the item, and/or other information as appropriate. All calculations were signed and sealed by the registered professional engineer (or geologist as appropriate) who prepared them.

This pending permit application is limited to the construction of Section 8. All other information not specifically required or related to the construction of Section 8 is not the subject of these responses nor a part of this pending permit application. General comments regarding other aspects of the facility development (such as details related to operation and closure) may be provided for information only.

ATTACHMENT 13

SECTION I
REPLACEMENT SECTION AND NEW FIGURES

SECTION I

HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS

I.1 HYDROGEOLOGICAL INVESTIGATION AND SITE REPORT

No changes are proposed.

Several studies have been completed that describe the hydrogeologic characteristics of the Capacity Expansion Area. These studies include:

- 1983 report titled, "Hydrogeologic Investigation Southeast County Landfill, Hillsborough County Landfill, Hillsborough County, Florida," prepared by Ardaman & Associates, Inc., Orlando, Florida
- 1997 report titled, "Southeast County Landfill Capacity Expansion Area Hydrogeological/Geotechnical Investigation," prepared by Barnes, Ferland, and Associates, Inc., Orlando, Florida.

I.1(a) Regional and Site Specific Geology and Hydrogeology

No substantial change is proposed. A summary of the regional geology and related hydrogeological units of Hillsborough County was included in Section H of the March 2000 Construction Permit Application for Section 7. In brief, the region is underlain by unconsolidated surficial sediments, both natural and phosphatic waste clays; followed by clastics containing phosphate, clay shell, and limestone; carbonate units; and carbonate units containing evaporites. Geologic cross sections were also included in Section H of the March 2000 Construction Permit Application for Section 7.

Geologic cross sections were prepared for Section 8. Figure I-1 presents the locations of the cross sections and Figures I-2 and I-3 present the north/south and east/west cross sections in detail. The cross sections are consistent with findings of Section 7 and other cross sections prepared previously.

I.1(b) Direction and Rate of Groundwater and Surface Water Flow

No substantial change is proposed. The direction of groundwater and surface water flow was presented in Section I of the September 2002 Operation Permit Application and subsequent responses for Section 7. The direction of groundwater and surface water flow is also applicable to Section 8.

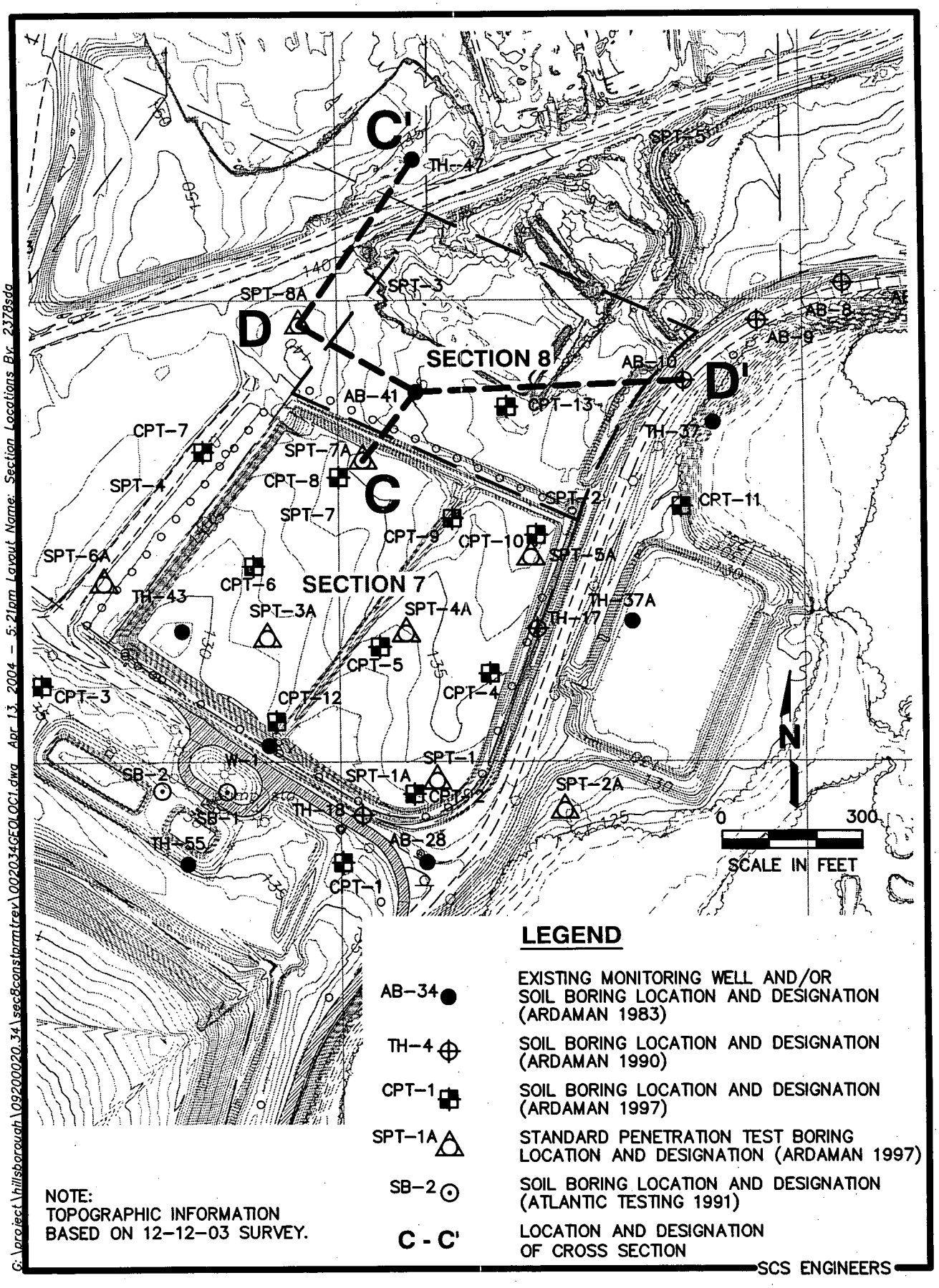


Figure I-1. Location of Geologic Cross Sections at Section 8

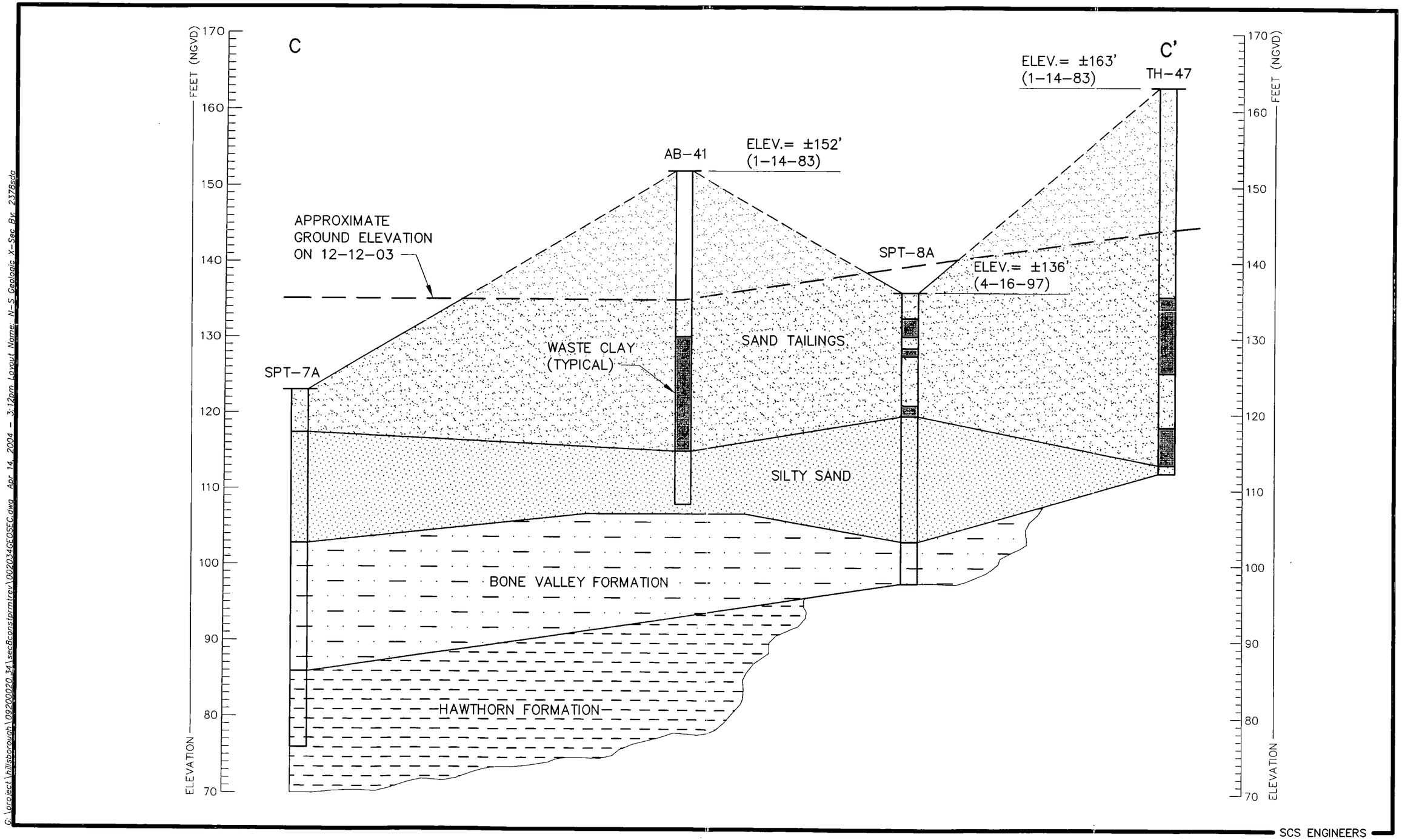


Figure I-2. North-South Geologic Cross Section C-C', Capacity Expansion, Section 8

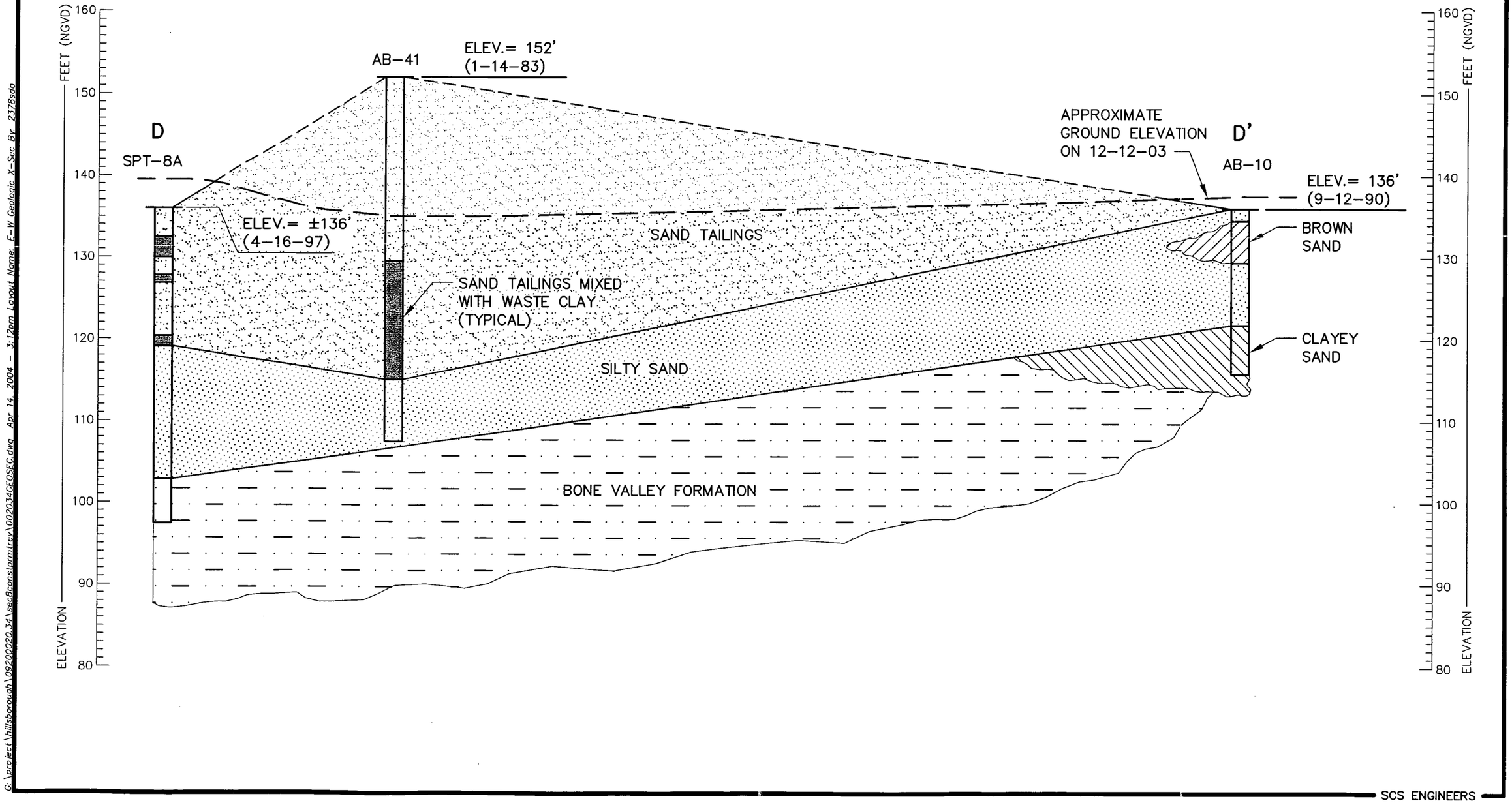
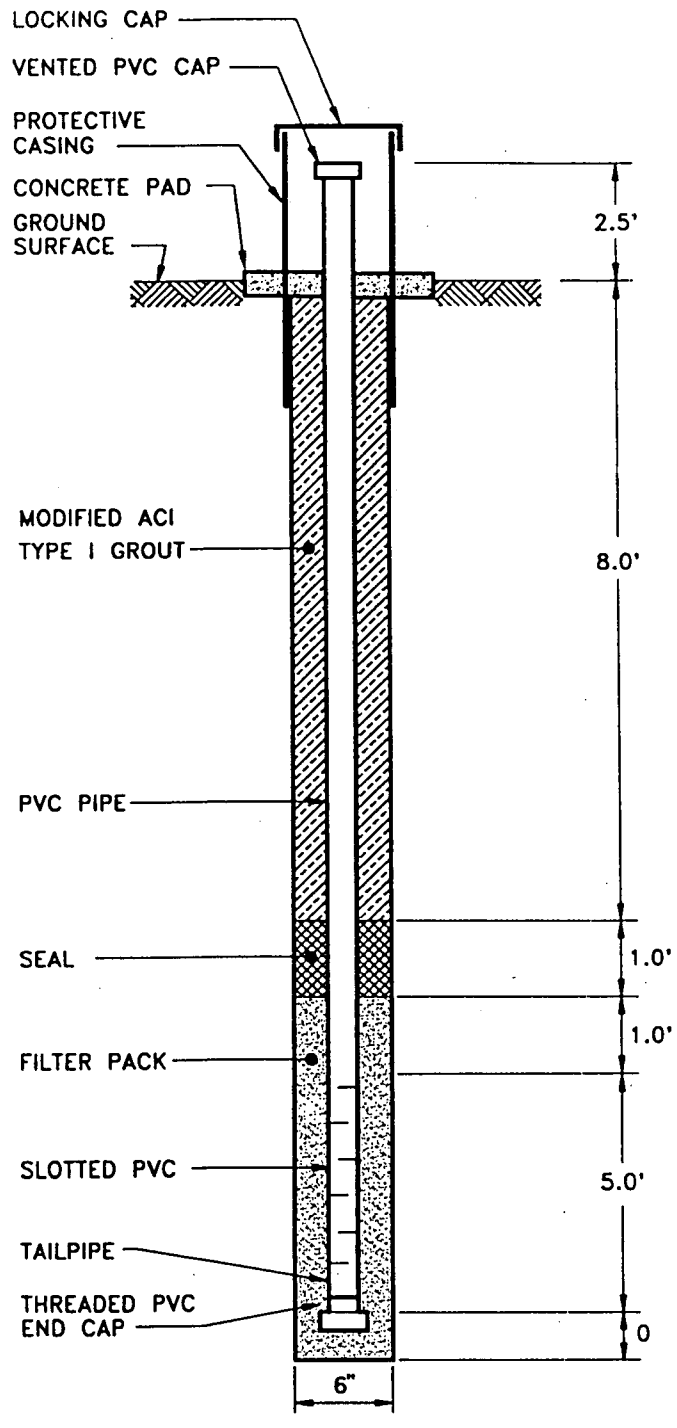


Figure I-3. East-West Geologic Cross Section D-D', Capacity Expansion, Section 8

PIEZOMETER WELL INSTALLATION RECORD P1-D



File No.: 97-9628
Project: SOUTH EAST LANDFILL
Client: HILLSBOROUGH COUNTY SOLID WASTE DEPT.

Well No.: P1-D
Date Installed: 4-24-97
Crew Supervisor: E. PARKER
Well Location: N 1250752.913
E 442931.011
TOC (MSL): 129.35

Protective Casing: (size and type)
4" ALUMINUM
Concrete Pad: (size) 2' x 2' x 4"
PVC Pipe: (size and type)
2" SCHEDULE 40, THREADED
Seal: (type) BENTONITE
Filter Pack: (type) 30/65 SILICA SAND
Slotted PVC: (size and type)
2"ø 0.01" SLOTTED WELL SCREEN

Total Length of PVC Pipe: 12.5 ft(BLS)
Total Length of Slotted PVC: 5 ft(BLS)
Total Length of End Point: 0 ft
Total Depth of Well: 15 ft(BLS)

No. Bags of Cement: 2
No. Bags of Filter Pack: 8
Amount of Seal: 25 lbs.

Remarks:

Water Level Readings:
Date: 4-24-97
Depth BTOC: 9'0" Depth BLS: 6'6"
Date:
Depth BTOC: Depth BLS:

Ardaman & Associates, Inc.
Consulting Engineers in Soils, Hydrogeology, Foundations, and Materials Testing

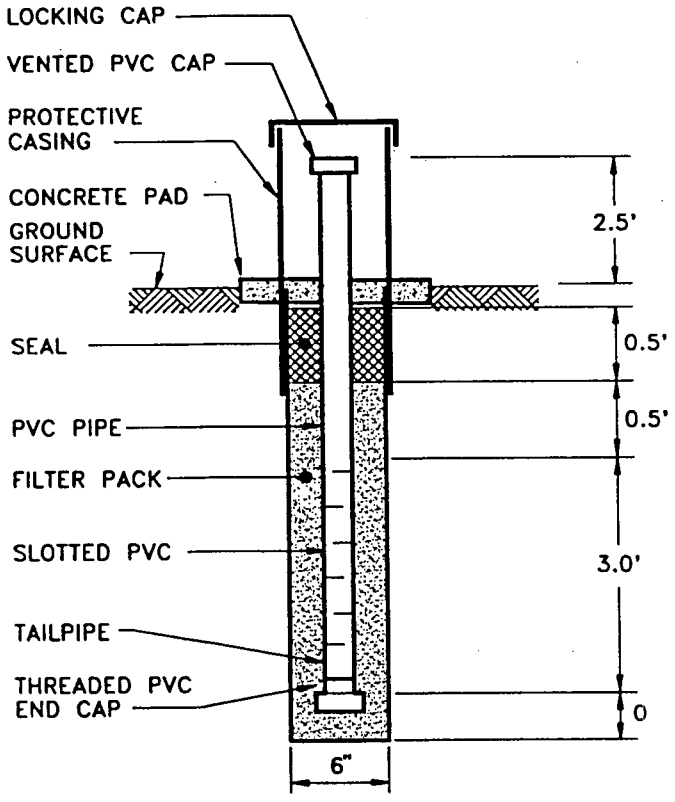
BLS: = Below Land Surface
BTOC: = Below Top of Casing
TOC: = Top of Casing
MSL: = Mean Sea Level

97-9628\P1-D

PIEZOMETER WELL INSTALLATION RECORD P1-S

File No.: 97-9628
Project: SOUTH EAST LANDFILL
Client: HILLSBOROUGH COUNTY SOLID WASTE DEPT.

Well No.: P1-S
Date Installed: 4-24-97
Crew Supervisor: E. PARKER
Well Location: N 1250744.422
E 442937.500
TOC (MSL): 129.76



Protective Casing: (size and type)
4" ALUMINUM
Concrete Pad: (size) 2' x 2' x 4"
PVC Pipe: (size and type)
2" SCHEDULE 40, THREADED
Seal: (type) BENTONITE
Filter Pack: (type) 30/65 SILICA SAND
Slotted PVC: (size and type)
2"ø 0.01" SLOTTED WELL SCREEN

Total Length of PVC Pipe: 3.5 ft(BLS)
Total Length of Slotted PVC: 3 ft(BLS)
Total Length of End Point: 0 ft
Total Depth of Well: 4 ft(BLS)

No. Bags of Cement: NA
No. Bags of Filter Pack: 3
Amount of Seal: 25 lbs.

Remarks:

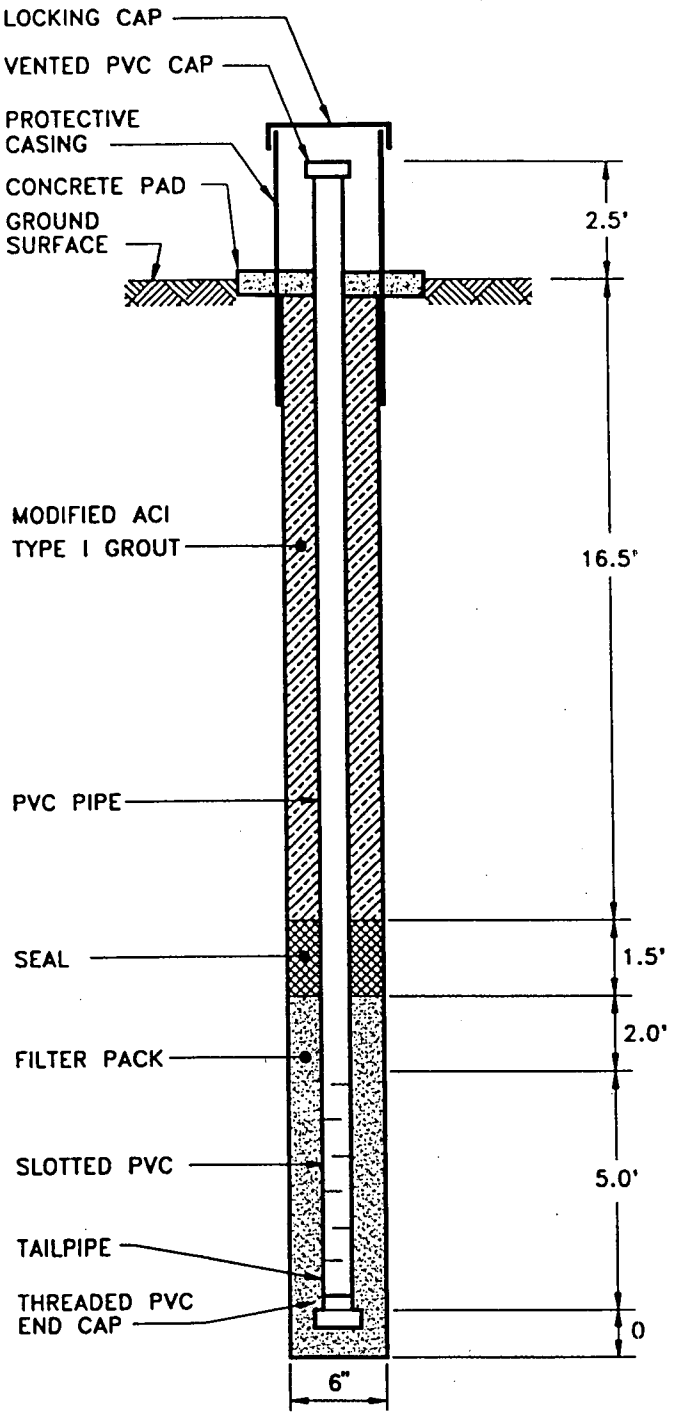
Water Level Readings:
Date: 4-24-97
Depth BTOC: 5'9" Depth BLS: 3'6"
Date:
Depth BTOC: Depth BLS:

Ardaman & Associates, Inc.
Consulting Engineers in Soils, Hydrogeology, Foundations, and Materials Testing

BLS: = Below Land Surface
BTOC: = Top of Casing
TOC: = Top of Casing
MSL: = Mean Sea Level

97-9628\P1-S

PIEZOMETER WELL INSTALLATION RECORD P-2D



File No.: 97-9628

Project: SOUTH EAST LANDFILL

Client: HILLSBOROUGH COUNTY SOLID WASTE DEPT.

Well No.: P-2D

Date Installed: 4-24-97

Crew Supervisor: E. PARKER

Well Location: N 1251708.752
E 442844.414

TOC (MSL): 138.59

Protective Casing: (size and type)
4" ALUMINUM

Concrete Pad: (size) 2' x 2' x 4"

PVC Pipe: (size and type)
2" SCHEDULE 40, THREADED

Seal: (type) BENTONITE

Filter Pack: (type) 30/65 SILICA SAND

Slotted PVC: (size and type)
2"ø 0.01" SLOTTED WELL SCREEN

Total Length of PVC Pipe: 22.5 ft(BLS)

Total Length of Slotted PVC: 5 ft(BLS)

Total Length of End Point: 0 ft

Total Depth of Well: 25 ft(BLS)

No. Bags of Cement: 4

No. Bags of Filter Pack: 9

Amount of Seal: 50 lbs.

Remarks:

Water Level Readings:

Date: 4-24-97

Depth BTOC: 21'4" Depth BLS: 18'10"

Date:

Depth BTOC: Depth BLS:

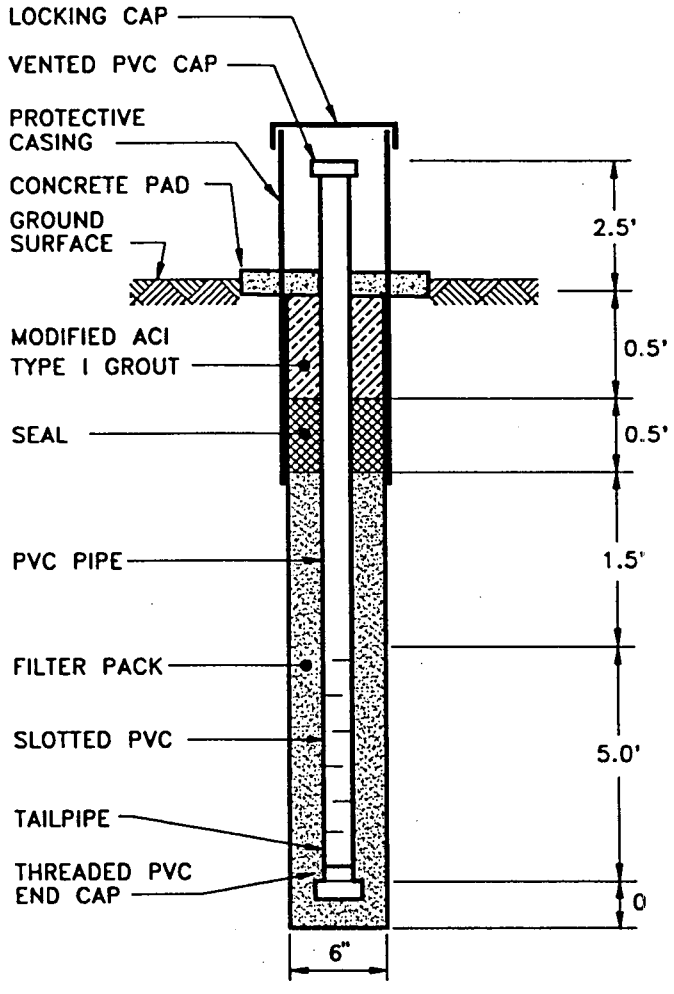
Ardaman & Associates, Inc.
Consulting Engineers in Soils, Hydrogeology, Foundations, and Materials Testing

BLS: = Below Land Surface
BTOC: = Below Top of Casing
TOC: = Top of Casing
MSL: = Mean Sea Level

97-9628\P-2D

PIEZOMETER WELL INSTALLATION RECORD P-2S

File No.:	97-9628
Project:	SOUTH EAST LANDFILL
Client:	HILLSBOROUGH COUNTY SOLID WASTE DEPT.



Well No.:	P-2S
Date Installed:	4-24-97
Crew Supervisor:	E. PARKER
Well Location:	N 1251700.153
	E 442849.597
TOC (MSL):	138.76

Protective Casing: (size and type)
4" ALUMINUM

Concrete Pad: (size) 2' x 2' x 4"

PVC Pipe: (size and type)
2" SCHEDULE 40, THREADED

Seal: (type) BENTONITE

Filter Pack: (type) 30/65 SILICA SAND

Slotted PVC: (size and type)
2"ø 0.01" SLOTTED WELL SCREEN

Total Length of PVC Pipe:	5	ft(BLS)
Total Length of Slotted PVC:	5	ft(BLS)
Total Length of End Point:	0	ft
Total Depth of Well:	7.5	ft(BLS)

No. Bags of Cement:	<1
No. Bags of Filter Pack:	3
Amount of Seal:	25 lbs.

Remarks:

Water Level Readings:

Date: 4-24-97

Depth BTOC: 8'10" Depth BLS: 6'4"

Date:

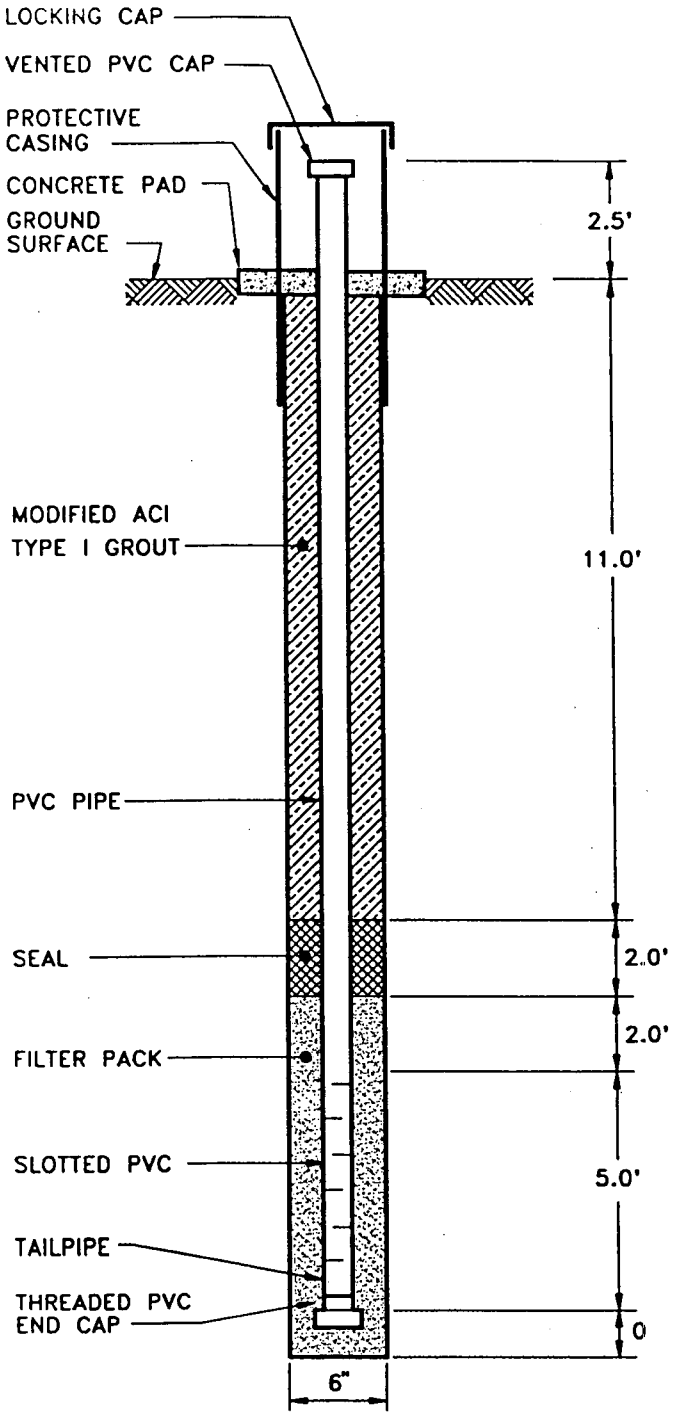
Depth BTOC: Depth BLS:

Ardaman & Associates, Inc.
Consulting Engineers in Soils, Hydrogeology, Foundations, and Materials Testing

BLS: = Below Land Surface
BTOC: = Below Top of Casing
TOC: = Top of Casing
MSL: = Mean Sea Level

97-9628\P-2S

PIEZOMETER WELL INSTALLATION RECORD P-3D



File No.: 97-9628

Project: SOUTH EAST LANDFILL

Client: HILLSBOROUGH COUNTY SOLID WASTE DEPT.

Well No.: P-3D

Date Installed: 4-24-97

Crew Supervisor: E. PARKER

Well Location: N 1251884.384

E 443578.301

TOC (MSL): 143.10

Protective Casing: (size and type)
4" ALUMINUM

Concrete Pad: (size) 2' x 2' x 4"

PVC Pipe: (size and type)
2" SCHEDULE 40, THREADED

Seal: (type) BENTONITE

Filter Pack: (type) 30/65 SILICA SAND

Slotted PVC: (size and type)
2"ø 0.01" SLOTTED WELL SCREEN

Total Length of PVC Pipe: 17.5 ft(BLS)

Total Length of Slotted PVC: 5 ft(BLS)

Total Length of End Point: 0 ft

Total Depth of Well: 20 ft(BLS)

No. Bags of Cement: 3

No. Bags of Filter Pack: 3

Amount of Seal: 50 lbs.

Remarks:

Water Level Readings:

Date: 4-24-97

Depth BTOC: 21'6" Depth BLS: 19'0"

Date:

Depth BTOC: Depth BLS:

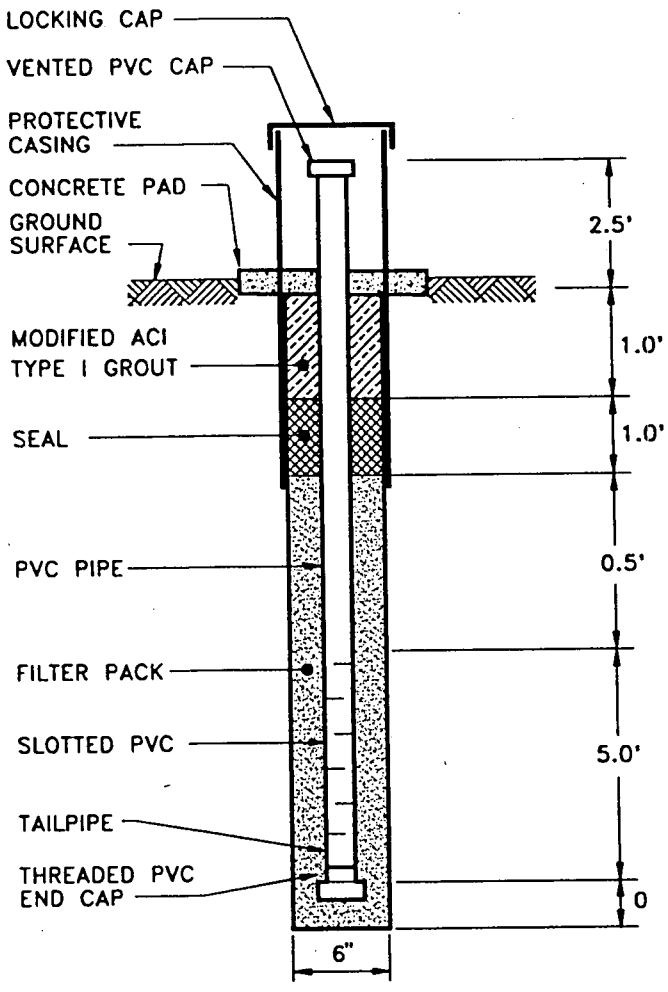
Ardaman & Associates, Inc.
Consulting Engineers in Soils, Hydrogeology, Foundations, and Materials Testing

BLS: = Below Land Surface
BTOC: = Below Top of Casing
TOC: = Top of Casing
MSL: = Mean Sea Level

97-9628\P-3D

PIEZOMETER WELL INSTALLATION RECORD P-3S

File No.:	97-9628
Project:	SOUTH EAST LANDFILL
Client:	HILLSBOROUGH COUNTY SOLID WASTE DEPT.



Well No.:	P-3S
Date Installed:	4-24-97
Crew Supervisor:	E. PARKER
Well Location:	N 1251896.462
	E 443580.830
TOC (MSL):	143.20

Protective Casing: (size and type)
4" ALUMINUM

Concrete Pad: (size) 2' x 2' x 4"

PVC Pipe: (size and type)
2" SCHEDULE 40, THREADED

Seal: (type) BENTONITE

Filter Pack: (type) 30/65 SILICA SAND

Slotted PVC: (size and type)
2"ø 0.01" SLOTTED WELL SCREEN

Total Length of PVC Pipe:	5	ft(BLS)
Total Length of Slotted PVC:	5	ft(BLS)
Total Length of End Point:	0	ft
Total Depth of Well:	7.5	ft(BLS)

No. Bags of Cement:	<1
No. Bags of Filter Pack:	3
Amount of Seal:	25 lbs.

Remarks:

Water Level Readings:

Date: 4-24-97

Depth BTOC: 0'0" (DRY) Depth BLS: DRY

Date:

Depth BTOC: Depth BLS:

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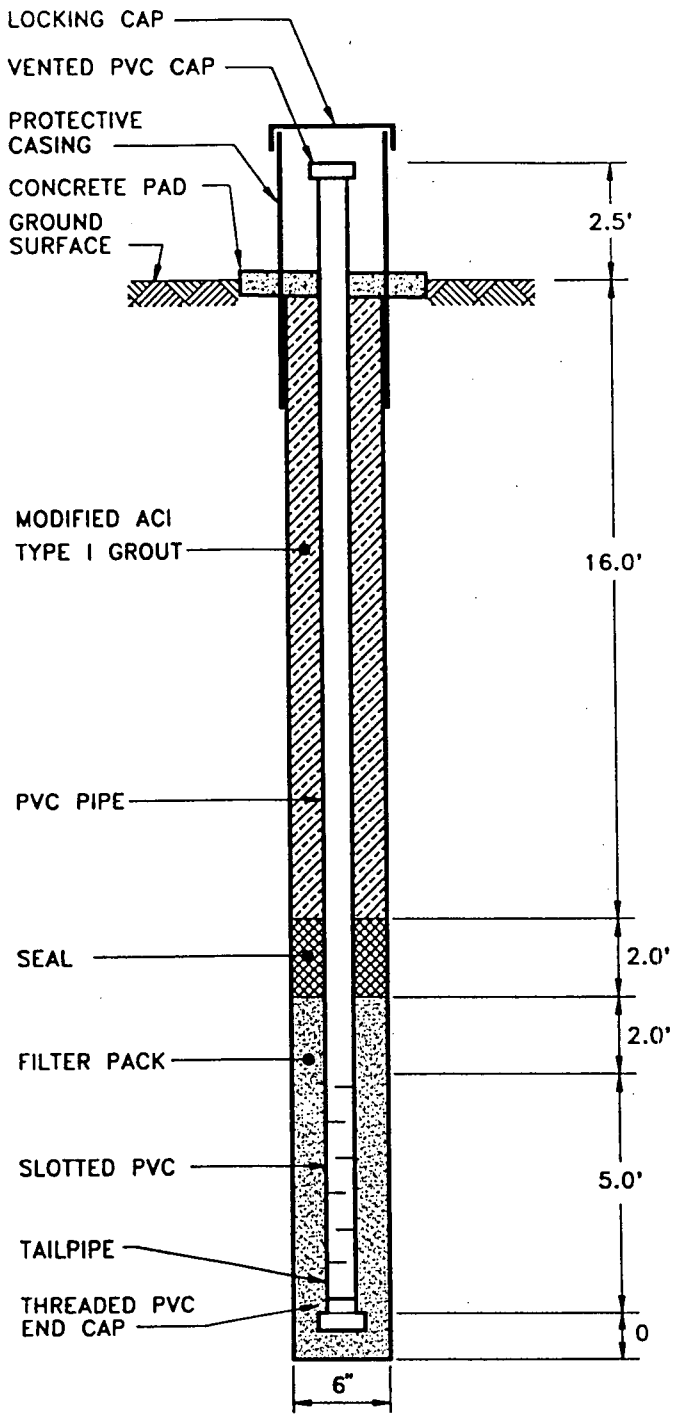
Consulting Engineers in Soils, Hydrogeology, Foundations, and Materials Testing

BLS: = Below Land Surface
BTOC: = Below Top of Casing
TOC: = Top of Casing
MSL: = Mean Sea Level

97-9628\P-3S

PIEZOMETER WELL INSTALLATION RECORD P-4D



File No.: 97-9628

Project: SOUTH EAST LANDFILL

Client: HILLSBOROUGH COUNTY SOLID WASTE DEPT.

Well No.: P-4D

Date Installed: 4-25-97

Crew Supervisor: E. PARKER

Well Location: N 1252160.687
E 442204.283

TOC (MSL): 141.68

Protective Casing: (size and type)
4" ALUMINUM

Concrete Pad: (size) 2' x 2' x 4"

PVC Pipe: (size and type)
2" SCHEDULE 40, THREADED

Seal: (type) BENTONITE

Filter Pack: (type) 30/65 SILICA SAND

Slotted PVC: (size and type)
2"ø 0.01" SLOTTED WELL SCREEN

Total Length of PVC Pipe: 22.5 ft(BLS)

Total Length of Slotted PVC: 5 ft(BLS)

Total Length of End Point: 0 ft

Total Depth of Well: 25 ft(BLS)

No. Bags of Cement: 3

No. Bags of Filter Pack: 3

Amount of Seal: 50 lbs.

Remarks:

Water Level Readings:

Date: 4-25-97

Depth BTOC: 18'2" Depth BLS: 15'8"

Date:

Depth BTOC: Depth BLS:

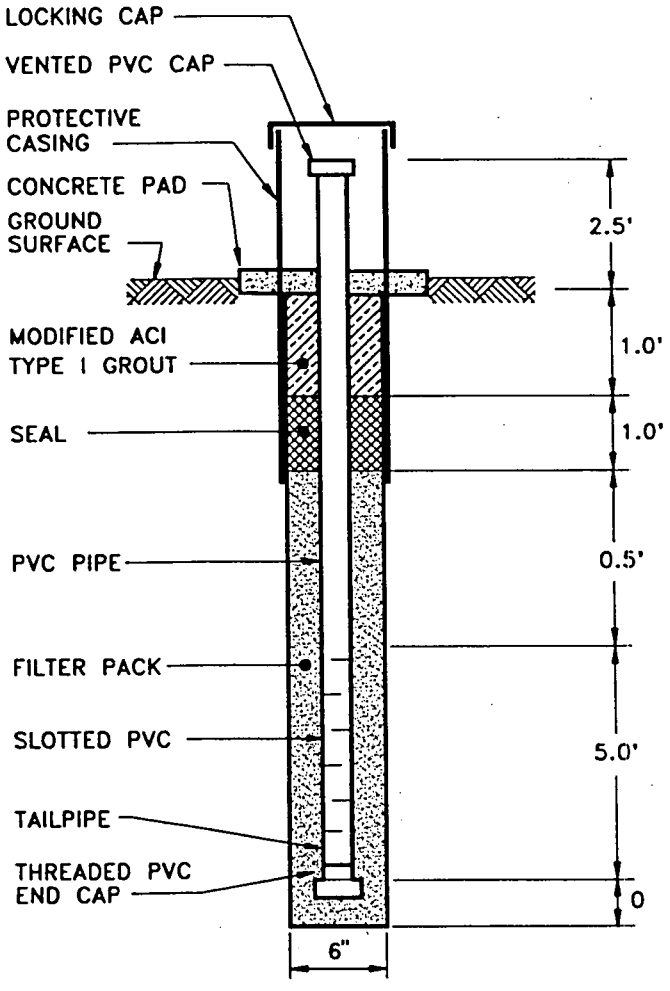
Ardaman & Associates, Inc.
Consulting Engineers in Soils, Hydrogeology, Foundations, and Materials Testing

BLS: = Below Land Surface
BTOC: = Below Top of Casing
TOC: = Top of Casing
MSL: = Mean Sea Level

97-9628\P-4D

PIEZOMETER WELL INSTALLATION RECORD P-4S

File No.:	97-9628
Project:	SOUTH EAST LANDFILL
Client:	HILLSBOROUGH COUNTY SOLID WASTE DEPT.



Well No.:	P-4S
Date Installed:	4-25-97
Crew Supervisor:	E. PARKER
Well Location:	N 1252153.106
	E 442200.956
TOC (MSL):	141.86

Protective Casing: (size and type)
4" ALUMINUM

Concrete Pad: (size) 2' x 2' x 4"

PVC Pipe: (size and type)
2" SCHEDULE 40, THREADED

Seal: (type) BENTONITE

Filter Pack: (type) 30/65 SILICA SAND

Slotted PVC: (size and type)
2"ø 0.01" SLOTTED WELL SCREEN

Total Length of PVC Pipe:	5	ft(BLS)
Total Length of Slotted PVC:	5	ft(BLS)
Total Length of End Point:	0	ft
Total Depth of Well:	7.5	ft(BLS)

No. Bags of Cement:	1
No. Bags of Filter Pack:	<1
Amount of Seal:	25 lbs.

Remarks:

Water Level Readings:

Date: 4-25-97

Depth BTOC: 3'8" Depth BLS: 1'2"

Date:

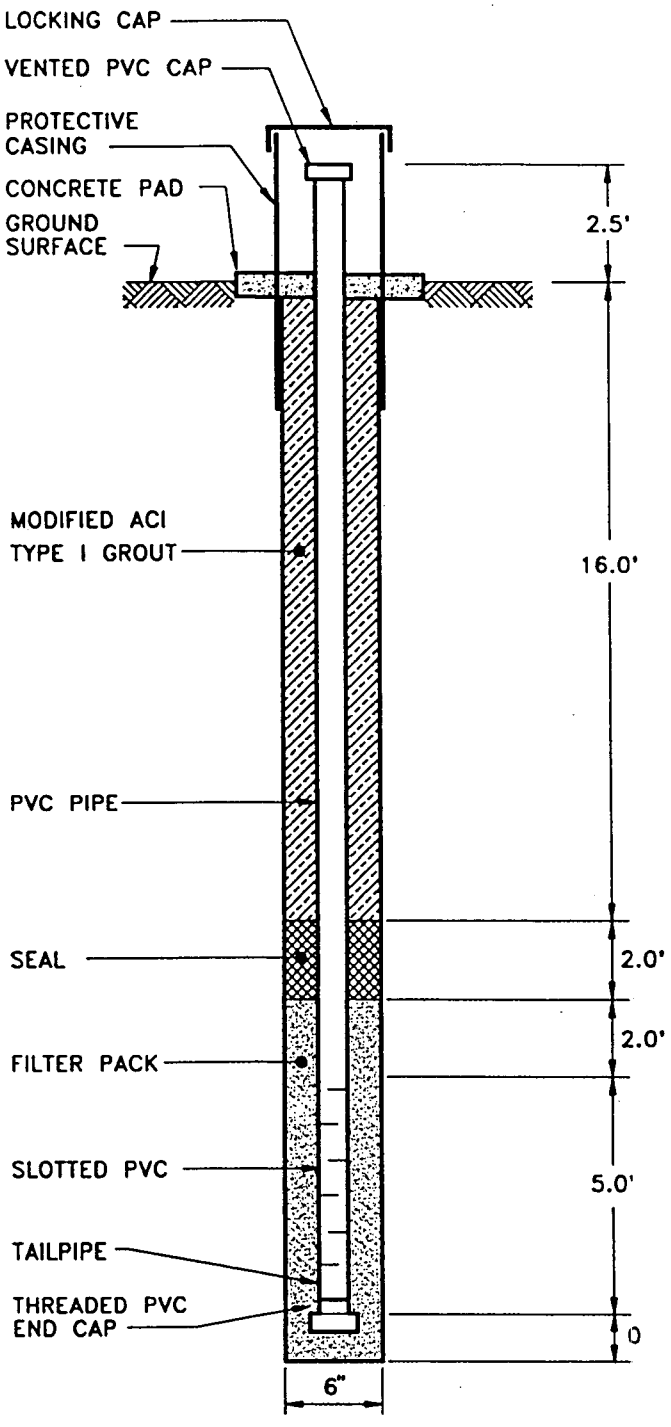
Depth BTOC: Depth BLS:

Ardaman & Associates, Inc.
Consulting Engineers in Soils, Hydrogeology, Foundations, and Materials Testing

BLS: = Below Land Surface
BTOC: = Below Top of Casing
TOC: = Top of Casing
MSL: = Mean Sea Level

97-9628\P-4S

PIEZOMETER WELL INSTALLATION RECORD P-5D



File No.: 97-9628

Project: SOUTH EAST LANDFILL

Client: HILLSBOROUGH COUNTY SOLID WASTE DEPT.

Well No.: P-5D

Date Installed: 4-29-97

Crew Supervisor: E. PARKER

Well Location: N 123584.016
E 443356.615

TOC (MSL): 156.75

Protective Casing: (size and type)
4" ALUMINUM

Concrete Pad: (size) 2' x 2' x 4"

PVC Pipe: (size and type)
2" SCHEDULE 40, THREADED

Seal: (type) BENTONITE

Filter Pack: (type) 30/65 SILICA SAND

Slotted PVC: (size and type)
2"ø 0.01" SLOTTED WELL SCREEN

Total Length of PVC Pipe:	22.5	ft(BLS)
Total Length of Slotted PVC:	5	ft(BLS)
Total Length of End Point:	0	ft
Total Depth of Well:	25	ft(BLS)

No. Bags of Cement:	4
No. Bags of Filter Pack:	5
Amount of Seal:	50 lbs.

Remarks:

Water Level Readings:

Date: 4-29-97

Depth BTOC: 18'2" Depth BLS: 15'8"

Date:

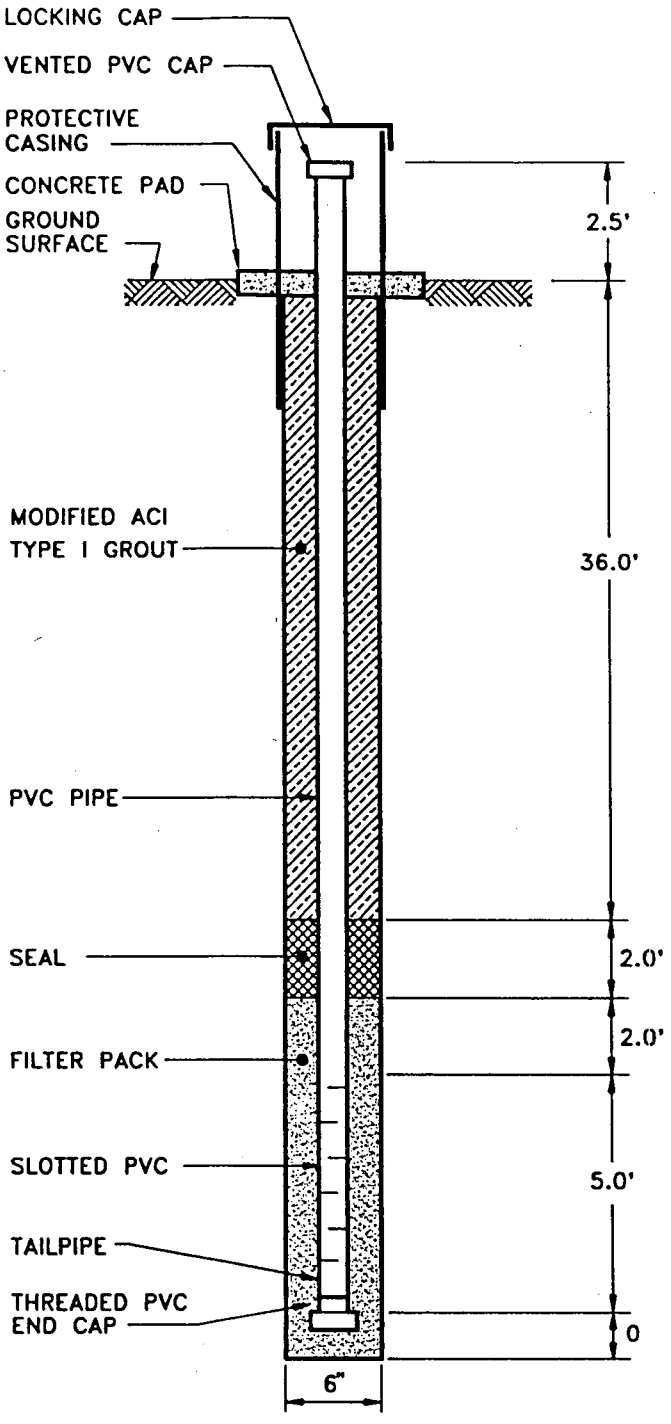
Depth BTOC: Depth BLS:

Ardaman & Associates, Inc.
Consulting Engineers in Soils, Hydrogeology, Foundations, and Materials Testing

BLS: = Below Land Surface
BTOC: = Below Top of Casing
TOC: = Top of Casing
MSL: = Mean Sea Level

97-9628\P-5D

PIEZOMETER WELL INSTALLATION RECORD P-6D



File No.:	97-9628
Project:	SOUTH EAST LANDFILL
Client:	HILLSBOROUGH COUNTY SOLID WASTE DEPT.

Well No.:	P-6D
Date Installed:	5-1-97
Crew Supervisor:	E. PARKER
Well Location:	N 1253248.997
	E 444329.166
TOC (MSL):	159.03

Protective Casing: (size and type)
4" ALUMINUM

Concrete Pad: (size) 2' x 2' x 4"

PVC Pipe: (size and type)
2" SCHEDULE 40, THREADED

Seal: (type) BENTONITE

Filter Pack: (type) 30/65 SILICA SAND

Slotted PVC: (size and type)
2"ø 0.01" SLOTTED WELL SCREEN

Total Length of PVC Pipe:	42.5	ft(BLS)
Total Length of Slotted PVC:	5	ft(BLS)
Total Length of End Point:	0	ft
Total Depth of Well:	45	ft(BLS)

No. Bags of Cement:	7
No. Bags of Filter Pack:	3
Amount of Seal:	50 lbs.

Remarks:

Water Level Readings:

Date:	5-1-97		
Depth BTOC:	35'7"	Depth BLS:	33'1"
Date:			
Depth BTOC:		Depth BLS:	

Ardaman & Associates, Inc.
Consulting Engineers in Soils, Hydrogeology, Foundations, and Materials Testing

BLS: = Below Land Surface
BTOC: = Below Top of Casing
TOC: = Top of Casing
MSL: = Mean Sea Level

97-9628\P-6D

P.15

L COMPLETION REPORT (Please complete in black ink or type.)

IIT # 591583.03 CUP/WUP # _____ DID # _____

nit is for multiple wells indicate the number of wells drilled _____.

te remaining wells to be cancelled _____.

:R WELL CONTRACTOR'S

ATURE Edward J. Parker License # 2368

I certify that the information provided in this report is accurate and true.

out	No. of Bags	From (Ft.)	To (Ft.)
at Cement:			
ntonite:	1/2	0.0	0.5

LOCATION: County Hillsborough

_ 1/4 of NW 1/4 of Section 23 Twp: 31S Rge: 21E

ude _____ Longitude _____

DATE STAMP

Official Use Only

ICAL ANALYSIS WHEN REQUIRED

____ ppm Sulfate: ____ ppm

ride:_____ ppm

Lab Test [ ] Field Test Kit

ip Type

Centrifugal [ ] Jet [ ] Submersible [ ] Turbine

epower _____ Capacity _____ G.P.M. _____

ip Depth _____ Ft. Intake Depth _____ Ft.

Sketch of well location on property N

Give distances from septic tank and house or other reference points

Form 41.10-410(2) Rev. 6/95

OWNER'S NAME Hillborough Co. Solid Waste Dept.

COMPLETION DATE 5-1-97 Florida Unique I.D. _____

WELL USE: DEP/Public ____ Irrigation ____ Domestic ____ Monitor ✓

HRS Limited ____ 62-524 ____ Other _____

DRILL METHOD [ ] Rotary [ ] Cable Tool [ ] Combination

[ ] Jet [X] Auger Other _____

Measured Static Water Level 5.7 Measured Pumping Water Level ____

After ____ Hours at ____ G.P.M. Measuring Pt. (Describe): Top of Well

Which is 2.5 Ft. [X] Above [ ] Below Land Surface

Casing: [ ] Black Steel [ ] Galv. [X] PVC Other _____

[ ] Open Hole [X] Screen	Depth (Ft.)		DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. *Color | Grain Size | Type of Material*
Casing Diameter & Depth (Ft.)	From	To	
Diameter 2" From 0.0 To 1.0	0.0	4.0	L. Be. SA w/ Phos (TD. Imag)
			4.0' EOB
Diameter ____ From ____ To ____			
Liner [ ] or Casing [ ] Diameter ____ From ____ To ____			

Driller's Name: (print or type) Edward J Parker

P1-D

LL COMPLETION REPORT (Please complete in black ink or type.)

MIT # 591583.04 CUP/WUP # _____ DID # _____

nit is for multiple wells indicate the number of wells drilled _____.

ıte remaining wells to be cancelled _____.

ER WELL CONTRACTOR'S
ATURE Edward J. Parker License # 2368

I certify that the information provided in this report is accurate and true.

'out	No. of Bags	From (Ft.)	To (Ft.)
eat Cement:	2	0.0	8.0
ntonite:	1/2 / 25 lbs	8.0	9.0

L LOCATION: County Hillsborough

1/4 of NW 1/4 of Section 23 Twp: 31S Rge: 21E

de _____ Longitude _____

DATE STAMP

Official Use Only

MICAL ANALYSIS WHEN REQUIRED

: ____ ppm Sulfate: ____ ppm

oride: ____ ppm

Lab Test [ ] Field Test Kit

np Type

Centrifugal [ ] Jet [ ] Submersible [ ] Turbine

sepower _____ Capacity _____ G.P.M. _____

np Depth _____ Ft. Intake Depth _____ Ft.

Sketch of well location on property N

Give distances from septic tank and house or other reference points

Form 41.10-410(2) Rev. 6/95

OWNER'S NAME Hillsborough Co. Solid Waste Dept

COMPLETION DATE 5-1-97 Florida Unique I.D. _____

WELL USE: DEP/Public ____ Irrigation ____ Domestic ____ Monitor ✓

HRS Limited ____ 62-524 ____ Other _____

DRILL METHOD [ ] Rotary [ ] Cable Tool [ ] Combination

[ ] Jet [X] Auger Other _____

Measured Static Water Level 9.0 Measured Pumping Water Level _____

After ____ Hours at ____ G.P.M. Measuring Pt. (Describe): Top of Well

Which is 2.5 Ft. [X] Above [ ] Below Land Surface

Casing: [ ] Black Steel [ ] Galv. [X] PVC Other _____

[ ] Open Hole
[X] Screen

Casing Diameter & Depth (Ft.)

Diameter 2" From 0.0 To 10.0

Liner [ ] or Casing [ ] Diameter ____ From ____ To ____

Depth (Ft.) From	To	DRILL CUTTINGS LOG — Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color | Grain Size | Type of Material
0.0	9.0	Bl. SA w/LI-BR, Cl. & Phos. Tr. Limy
9.0	15.0	DK-BR-BR SI. Clay SA
		15.0 EOB

Driller's Name: (print or type) Edward J Parker

P2-5

L COMPLETION REPORT (Please complete in black ink or type.)

T # 591583.01 CUP/WUP # _____ DID # _____

it is for multiple wells indicate the number of wells drilled _____.

e remaining wells to be cancelled _____.

R WELL CONTRACTOR'S

TURE Edward D. Parker License # 2368

I certify that the information provided in this report is accurate and true.

ut	No. of Bags	From (Ft.)	To (Ft.)
at Cement:	1/2	0.0	0.5
ntonite:	1/4 / 12.5 lbs	0.5	1.0

LOCATION: County Hillsborough

¼ of NW ¼ of Section 23 Twp: 31S Rge: 21E

ude _____ Longitude _____

DATE STAMP

Official Use Only

MICAL ANALYSIS WHEN REQUIRED

: ____ ppm Sulfate: ____ ppm

oride: ____ ppm

Lab Test [ ] Field Test Kit

mp Type

Sketch of well location on property N

Give distances from septic tank and house or other reference points

Centrifugal [ ] Jet [ ] Submersible [ ] Turbine

sepower _____ Capacity _____ G.P.M. _____

mp Depth _____ Ft. Intake Depth _____ Ft.

Form 41.10-410(2) Rev. 6/95

OWNER'S NAME Hillsborough Co. Solid Waste Dept

COMPLETION DATE _____ Florida Unique I.D. _____

WELL USE: DEP/Public ____ Irrigation ____ Domestic ____ Monitor ✓

HRS Limited ____ 62-524 ____ Other _____

DRILL METHOD [ ] Rotary [ ] Cable Tool [ ] Combination

[ ] Jet [X] Auger Other _____

Measured Static Water Level 8.8 Measured Pumping Water Level _____

After ____ Hours at ____ G.P.M. Measuring Pt. (Describe): TOP OF WELL

Which is 2.5 Ft. [X] Above [ ] Below Land Surface

Casing: [ ] Black Steel [ ] Galv. [X] PVC Other _____

[ ] Open Hole
[X] Screen

Casing Diameter & Depth (Ft.)	Depth (Ft.) From	Depth (Ft.) To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. *Color | Grain Size | Type of Material*
Diameter 2" From 0.0 To 2.5	0.0	7.5	BR. SD (To. Limy)
Diameter ____ From ____ To ____			
Liner [ ] or Casing [ ] Diameter ____ From ____ To ____			

Driller's Name: *(print or type)* Edward J Parker

P-2D ?

...LL COMPLETION REPORT (Please complete in black ink or type.)

...IIT # 59/583.02 CUP/WUP # _____ DID # _____

...nit is for multiple wells indicate the number of wells drilled _____.

...te remaining wells to be cancelled _____.

...:R WELL CONTRACTOR'S ...ATURE Roger B. Ouder License # 2368

I certify that the information provided in this report is accurate and true.

...out	No. of Bags	From (Ft.)	To (Ft.)
...at Cement:	4	0.0	16.5
...ntonite:	1	16.5	18.5

...L LOCATION: County HILLSBOROUGH

...1/4 of NW 1/4 of Section 23 Twp: 31S Rge: 21E

...de _____ Longitude _____

DATE STAMP

Official Use Only

Sketch of well location on property N

Give distances from septic tank and house or other reference points

...MICAL ANALYSIS WHEN REQUIRED

...: ____ ppm Sulfate: ____ ppm

...oride: ____ ppm

Lab Test [ ] Field Test Kit

...mp Type

Centrifugal [ ] Jet [ ] Submersible [ ] Turbine

...sepower _____ Capacity _____ G.P.M. _____

...mp Depth _____ Ft. Intake Depth _____ Ft.

Form 41.10-410(2) Rev. 6/95

OWNER'S NAME Hillsborough Co. Solid Wste Dept

COMPLETION DATE 5-1-97 Florida Unique I.D. _____

WELL USE: DEP/Public ___ Irrigation ___ Domestic ___ Monitor ✓

HRS Limited ___ 62-524 ___ Other _____

DRILL METHOD [ ] Rotary [ ] Cable Tool [ ] Combination

[ ] Jet [X] Auger Other _____

Measured Static Water Level 21.2' Measured Pumping Water Level ____

After ___ Hours at ___ G.P.M. Measuring Pt. (Describe): top of Well

Which is 2.5 Ft. [X] Above [ ] Below Land Surface

Casing: [ ] Black Steel [ ] Galv. [X] PVC Other _____

[ ] Open Hole [X] Screen	Depth (Ft.)		DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones.
Casing Diameter & Depth (Ft.)	From	To	Color | Grain Size | Type of Material
Diameter 2" From 0.0 To 20.0	0.0	9.0	U. BR. SA w/Lt. BRC1.8
			PNDS (fr. 1.ng)
	9.0	25.0	DK. BR-BR. Silty SA
Diameter ____ From ____ To ____			25.0 EOB
Liner [ ] or Casing [ ] Diameter ____ From ____ To ____			

Driller's Name: (print or type) Edward J. Parker

P-35

L COMPLETION REPORT (Please complete in black ink or type.)

r # 591588.05 CUP/WUP # _____ DID # _____

t is for multiple wells indicate the number of wells drilled _____.

remaining wells to be cancelled _____.

WELL CONTRACTOR'S
TURE Roger A. Parker License # 2368

I certify that the information provided in this report is accurate and true.

rt	No. of Bags	From (Ft.)	To (Ft.)
t Cement:	1	0.0	1.0
onite:	1/2 / 25lbs	1.0	2.0

LOCATION: County Hillsborough
¼ of SE ¼ of Section 14 Twp: 31S Rge: 21E
_____ Longitude _____

DATE STAMP

Official Use Only

Sketch of well location on property N

Give distances from septic tank and house or other reference points

CAL ANALYSIS WHEN REQUIRED
___ ppm Sulfate: ___ ppm
de: ___ ppm
b Test [ ] Field Test Kit
Type
entrifugal [ ] Jet [ ] Submersible [ ] Turbine
power _____ Capacity _____ G.P.M. _____
Depth _____ Ft. Intake Depth _____ Ft.

Form 41.10-410(2) Rev. 6/95

OWNER'S NAME Hillsborough Co. Solid Waste Dept
COMPLETION DATE 5-1-97 Florida Unique I.D. _____
WELL USE: DEP/Public ___ Irrigation ___ Domestic ___ Monitor ✓
HRS Limited ___ 62-524 ___ Other _____
DRILL METHOD [ ] Rotary [ ] Cable Tool [ ] Combination
[ ] Jet [✓] Auger Other _____

Measured Static Water Level NoFlow Measured Pumping Water Level _____
After ___ Hours at ___ G.P.M. Measuring Pt. (Describe): Top of Well
Which is 2.5 Ft. [X] Above [ ] Below Land Surface
Casing: [ ] Black Steel [ ] Galv. [X] PVC Other _____

[ ] Open Hole [X] Screen	Depth (Ft.)		DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color | Grain Size | Type of Material
Casing Diameter & Depth (Ft.)	From	To	
Diameter 2" From 0.0 To 2.5	0.0	7.5	Lt. Br. SA w/ U. BR Cl. & Phos (Tailings)
			7.5 EOB
Diameter ___ From ___ To ___			Water Level not Encountered At This Depth
Liner [ ] or Casing [ ] Diameter ___ From ___ To ___			

Driller's Name: (print or type) Edward J. Parker

2 3D

COMPLETION REPORT (Please complete in black ink or type.)

591583.05 CUP/WUP # _____ DID # _____

is for multiple wells indicate the number of wells drilled _____.

remaining wells to be cancelled _____.

WELL CONTRACTOR'S

URE Edward J. Parker License # 2360

I certify that the information provided in this report is accurate and true.

	No. of Bags	From (Ft.)	To (Ft.)
t Cement:	3	0.0	11.0
onite:	1	11.0	13.0

LOCATION: County Hillsborough

1/4 of NE 1/4 of Section 23 Twp: 31S Rge: 21E

de _____ Longitude _____

DATE STAMP

Official Use Only

ICAL ANALYSIS WHEN REQUIRED

____ ppm Sulfate: ____ ppm

ide: ____ ppm

ab Test [ ] Field Test Kit

p Type

entrifugal [ ] Jet [ ] Submersible [ ] Turbine

epower _____ Capacity _____ G.P.M. _____

p Depth _____ Ft. Intake Depth _____ Ft.

Sketch of well location on property N

Give distances from septic tank and house or other reference points

Form 41.10-410(2) Rev. 6/95

OWNER'S NAME Hillsborough Co. Solid Waste Dept.

COMPLETION DATE _____ Florida Unique I.D. _____

WELL USE: DEP/Public ___ Irrigation ___ Domestic ___ Monitor ✓

HRS Limited ___ 62-524 ___ Other _____

DRILL METHOD [ ] Rotary [ ] Cable Tool [ ] Combination

[ ] Jet [X] Auger Other _____

Measured Static Water Level 21.5 Measured Pumping Water Level

After ___ Hours at ___ G.P.M. Measuring Pt. (Describe): Top OF Well

Which is 2.5 Ft. [X] Above [ ] Below Land Surface

Casing: [ ] Black Steel [ ] Galv. [X] PVC Other _____

[ ] Open Hole [X] Screen	Depth (Ft.) From	To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color | Grain Size | Type of Material
Casing Diameter & Depth (Ft.)			
Diameter 2" From 0.0 To 15.0	0.0	12.0	Lt. Br. SA w/ Lt. Br. Cl. & Phos Tr. Ling
	12.0	19.5	Br. Sl. Lt. SA
Diameter ____ From ____ To ____	19.5	20.0	Cl. Br. Sandy Cl.
			20.0 EOB
Liner [ ] or Casing [ ] Diameter ____ From ____ To ____			

Driller's Name: (print or type) Edward J Parker

P-45

LL COMPLETION REPORT (Please complete in black ink or type.)

MIT # 591588.01 CUP/WUP # _____ DID # _____

mit is for multiple wells indicate the number of wells drilled _____.

ate remaining wells to be cancelled _____.

ER WELL CONTRACTOR'S
IATURE Edward J. Parker License # 2368

I certify that the information provided in this report is accurate and true.

rout	No. of Bags	From (Ft.)	To (Ft.)
eat Cement:	1	0.0	1.0
entonite:	1/2 / 25lbs	1.0	2.0

LL LOCATION: County Hillsborough
¼ of SW ¼ of Section 14 Twp: 31S Rge: 21E
itude _____ Longitude _____

DATE STAMP

Official Use Only

Sketch of well location on property N

Give distances from septic tank and house or other reference points

EMICAL ANALYSIS WHEN REQUIRED
n: ____ ppm Sulfate: ____ ppm
loride: ____ ppm
[ ] Lab Test [ ] Field Test Kit

mp Type
[ ] Centrifugal [ ] Jet [ ] Submersible [ ] Turbine
rsepower _____ Capacity _____ G.P.M. _____
mp Depth _____ Ft. Intake Depth _____ Ft.

Form 41.10-410(2) Rev. 6/95

OWNER'S NAME Hillsborough Co. Solid Waste Dept
COMPLETION DATE 5-1-97 Florida Unique I.D. _____
WELL USE: DEP/Public ___ Irrigation ___ Domestic ___ Monitor ✓
HRS Limited ___ 62-524 ___ Other _____
DRILL METHOD [ ] Rotary [ ] Cable Tool [ ] Combination
[ ] Jet [✓] Auger Other _____

Measured Static Water Level 3.8 Measured Pumping Water Level ____
After ____ Hours at ____ G.P.M. Measuring Pt. (Describe): Top of PVC
Which is 2.5 Ft. [X] Above [ ] Below Land Surface
Casing: [ ] Black Steel [ ] Galv. [X] PVC Other _____

[ ] Open Hole [X] Screen / Casing Diameter & Depth (Ft.)	Depth (Ft.) From	To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. *Color | Grain Size | Type of Material*
Diameter 2" From 0.0 To 2.5	0.0	7.5	Lt. Br. SA w/ Lt. Br. Cl. & Phos. (Tailing)
Diameter ____ From ____ To ____			7.5 EOB
Liner [ ] or Casing [ ] Diameter ____ From ____ To ____			

Driller's Name: (print or type) Edward J. Parker

24-D

LL COMPLETION REPORT (Please complete in black ink or type.)

MIT # 591588.02 CUP/WUP # _____ DID # _____

mit is for multiple wells indicate the number of wells drilled _____.

ate remaining wells to be cancelled _____.

ER WELL CONTRACTOR'S
IATURE Edward J. Parker License # 2368

I certify that the information provided in this report is accurate and true.

rout	No. of Bags	From (Ft.)	To (Ft.)
eat Cement:	3	0.0	16.0
ntonite:	1	16.0	18.0

. LOCATION: County Hillsborough

¼ of SW ¼ of Section 14 Twp: 31S Rge: 21E

itude _____ Longitude _____

DATE STAMP

Official Use Only

Sketch of well location on property N

Give distances from septic tank and house or other reference points

EMICAL ANALYSIS WHEN REQUIRED

n: ____ ppm Sulfate: ____ ppm

loride: ____ ppm

] Lab Test [ ] Field Test Kit

mp Type

] Centrifugal [ ] Jet [ ] Submersible [ ] Turbine

orsepower _____ Capacity _____ G.P.M. _____

mp Depth _____ Ft. Intake Depth _____ Ft.

Form 41.10-410(2) Rev. 6/95

OWNER'S NAME Hillsborough Co. Solid Waste Dept.

COMPLETION DATE 5-14-97 Florida Unique I.D. _____

WELL USE: DEP/Public ____ Irrigation ____ Domestic ____ Monitor ✓

HRS Limited ____ 62-524 ____ Other _____

DRILL METHOD [ ] Rotary [ ] Cable Tool [ ] Combination

[ ] Jet [✓] Auger Other _____

Measured Static Water Level 18.1 Measured Pumping Water Level ____

After ____ Hours at ____ G.P.M. Measuring Pt. (Describe): Top OF Well

Which is 2.5 Ft. [X] Above [ ] Below Land Surface

Casing: [ ] Black Steel [ ] Galv. [X] PVC Other _____

[ ] Open Hole [X] Screen	Depth (Ft.)		DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones.
Casing Diameter & Depth (Ft.)	From	To	*Color | Grain Size | Type of Material*
Diameter 2 From 0.0 To 20.0	0.0	11.0	Bl. SA w/ L. Br Cl. &
			Phos (To. Ling)
	11.0	25.0	DK. Br - Bl = Lg SA
Diameter ____ From ____ To ____			25.0 EOB
Liner [ ] or Casing [ ] Diameter ____ From ____ To ____			

Driller's Name: *(print or type)* Edward J. Parker

PS-P

LL COMPLETION REPORT (Please complete in black ink or type.)

MIT #591588.03 CUP/WUP # _____ DID # _____

mit is for multiple wells indicate the number of wells drilled _____.

ate remaining wells to be cancelled _____.

ER WELL CONTRACTOR'S

IATURE Gregg S. Jude License # 2368

I certify that the information provided in this report is accurate and true.

rout	No. of Bags	From (Ft.)	To (Ft.)
eat Cement:	4	0.0	16.0
entonite:	1	16.0	18.0

LOCATION: County Hillsborough

¼ of NW ¼ of Section 14 Twp: 31S Rge: 21E

de _____ Longitude _____

DATE STAMP

Official Use Only

Sketch of well location on property N

Give distances from septic tank and house or other reference points

EMICAL ANALYSIS WHEN REQUIRED

n: ____ ppm Sulfate: ____ ppm

loride: ____ ppm

] Lab Test [ ] Field Test Kit

mp Type

] Centrifugal [ ] Jet [ ] Submersible [ ] Turbine

rsepower _____ Capacity _____ G.P.M. _____

mp Depth _____ Ft. Intake Depth _____ Ft.

Form 41.10-410(2) Rev. 6/95

OWNER'S NAME Hillsborough Co. Solid Waste Dep

COMPLETION DATE 5-1-97 Florida Unique I.D. _____

WELL USE: DEP/Public ___ Irrigation ___ Domestic ___ Monitor ✓

HRS Limited ___ 62-524 ___ Other _____

DRILL METHOD [ ] Rotary [ ] Cable Tool [ ] Combination

[ ] Jet [X] Auger Other _____

Measured Static Water Level 27.1 Measured Pumping Water Level ____

After ___ Hours at ___ G.P.M. Measuring Pt. (Describe): Top of Well

Which is 2.5 Ft. [X] Above [ ] Below Land Surface

Casing: [ ] Black Steel [ ] Galv. [X] PVC Other _____

[ ] Open Hole [X] Screen	Depth (Ft.)		DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones.
Casing Diameter & Depth (Ft.)	From	To	Color | Grain Size | Type of Material
Diameter 2" From 0.0 To 20.0	0.0	13.0	BR. SD w/ LM. BRCL. & PHOS (To, Loose)
	13.0	25.0	DKBR.-BR. SLTY SD
Diameter ____ From ____ To ____			25.0 EOB
Liner [ ] or Casing [ ] Diameter ____ From ____ To ____			

Driller's Name: (print or type) Edward J PARKER

26-D

LL COMPLETION REPORT (Please complete in black ink or type.)

MIT # 591588.04 CUP/WUP # _____ DID # _____

nit is for multiple wells indicate the number of wells drilled _____.

ıte remaining wells to be cancelled _____.

ER WELL CONTRACTOR'S
ATURE George D. Fuller License # 2368

I certify that the information provided in this report is accurate and true.

out	No. of Bags	From (Ft.)	To (Ft.)
eat Cement:	7	0.0	38.0
entonite:	1	36	38.0

L. LOCATION: County Hillsborough
1/4 of SE 1/4 of Section 14 Twp: 31S Rge: 21E
tude _____ Longitude _____

DATE STAMP

Official Use Only

Sketch of well location on property N

Give distances from septic tank and house or other reference points

EMICAL ANALYSIS WHEN REQUIRED
n: ____ ppm Sulfate: ____ ppm
loride: ____ ppm
] Lab Test [ ] Field Test Kit

ımp Type
] Centrifugal [ ] Jet [ ] Submersible [ ] Turbine
ırsepower _____ Capacity _____ G.P.M. _____
ımp Depth _____ Ft. Intake Depth _____ Ft.

Form 41.10-410(2) Rev. 6/95

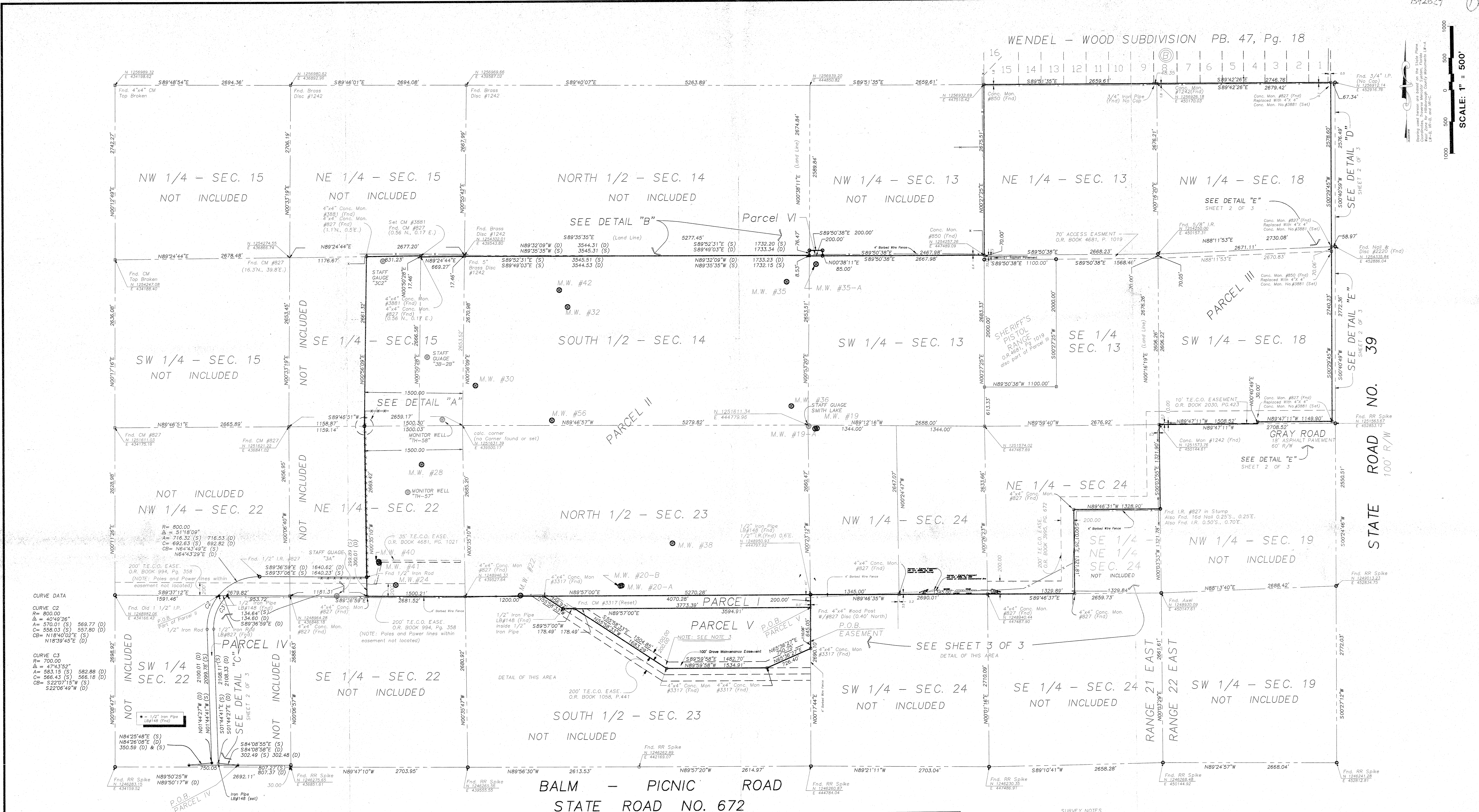
OWNER'S NAME Hillsborough Co. Solid Waste Dept.
COMPLETION DATE _____ Florida Unique I.D. _____
WELL USE: DEP/Public ___ Irrigation ___ Domestic ___ Monitor ✓
HRS Limited ___ 62-524 ___ Other _____
DRILL METHOD [ ] Rotary [ ] Cable Tool [ ] Combination
[ ] Jet [X] Auger Other _____

Measured Static Water Level 35.6' Measured Pumping Water Level ____
After ___ Hours at ___ G.P.M. Measuring Pt. (Describe): Top of Well
Which is 2.5 Ft. [ ] Above [ ] Below Land Surface
Casing: [ ] Black Steel [ ] Galv. [X] PVC Other _____

[ ] Open Hole [X] Screen	Depth (Ft.)		DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones.
Casing Diameter & Depth (Ft.)	From	To	Color | Grain Size | Type of Material
Diameter 2"	0.0	20.0	BR. SA w/ Phos Tailings
From 0.0	20.0	35.0	BR. SA w/ Phos (Tailings)
To 40.0	35.0	45.0	DK BR - BR. Silty SA
Diameter ____			45.0 EOB
From ____			
To ____			
Liner [ ] or Casing [ ]			
Diameter ____			
From ____			
To ____			

Driller's Name: *(print or type)* Edward J Parker

1542629 (1)



NOTE: The State Plane Coordinates shown hereon were based on original calculations using the following Hillsborough County Control Monuments and their coordinate value as of that date (1985)

LW–A = X: 435696.551 Y: 1246244.133 scale factor 0.9999459164

VR–B = X: 452880.9434 Y: 1259077.524 scale factor 0.9999437214

LW–B = X: 437486.266 Y: 1246300.261 scale factor 0.9999456563

VR–C = X: 452881.3793 Y: 1252181.603 scale factor 0.9999437214

Since the date of this original survey there has been a re-adjustment made and the coordinate values of the above listed control monuments has changed. The new values are as follows:

VR–B = X: 452882.469 Y: 1259077.513 scale factor 0.9999437214

VR–C = X: 452882.282 Y: 1252181.961 scale factor 0.9999437214

THIS NOTE WAS ADDED FOR INFORMATIONAL PURPOSES. THE COORDINATE VALUES SHOWN HEREON REFLECT THE ORIGINAL CALCULATIONS AND HAVE NOT BEEN ADJUSTED TO THE REVISED DATUM.

Monitor Well and Staff Gauge Locations, November 1996, have a Horizontal Value of NAD 1927, and a Vertical Value of NGVD 1929. Previously located wells NOT VERIFIED AT THIS TIME.

Point I.D.	Northing	Easting	Comments
Staff Gauge 3A	1249126.4	593793.5	Top of Gauge = 125.53 Top of Water = 122.37 (11/22/96) Gauge Reading = 0.23 Gauge Reading = 3.33 (Top)
Staff Gauge 3B–2B	1252868.0	595196.1	Top of Gauge = 97.97 Top of Water = 95.62 (11/22/96) Gauge Reading = 0.98 @ Water Line Gauge Reading = 3.34 (Top)
Staff Gauge 3C2	1254377.3	594524.7	Top of Gauge = 92.33 Top of Water = 90.10 (11/22/96) Gauge Reading = 1.12 @ Water Line Gauge Reading = 3.34 (Top)
Staff Gauge Smith Lake	1251758.5	601020.8	Top of Gauge = 125.40 Top of Water = 120.63 (11/22/96) Gauge Reading = 1.90 Gauge Reading = 6.67 (Top)
Mon[illegible] Well TH–5[illegible]	1250751.4	594886.8	2"PVC = 128.09 8" Steel Casing = 128.36
Monitor Well TH–58	1251885.8	595422.8	2"PVC = 127.67 8" Steel Casing = 127.88

SURVEY NOTES

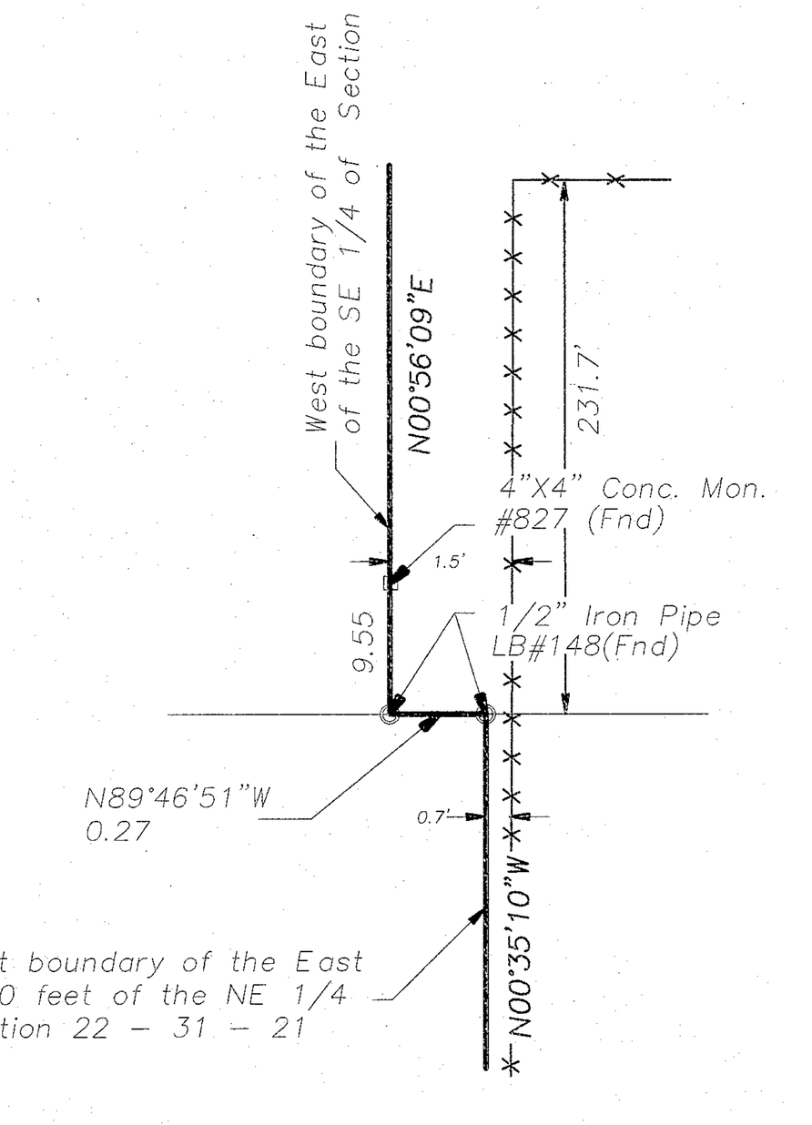
1. Interior occupation not located or shown hereon. In addition the interior parcels have not been surveyed nor have the interior parcel corners been located.
2. Elevations as shown hereon are to Sea Level Datum of 1929, and appear as on the original survey. No additional or new elevations have been determined for this survey.
3. Power poles and wires encroach outside of Tampa Electric Company Easement in this area. See survey order No. HBC–83–131, dated Nov. 15, 1983 for location of encroachments.

LEGEND

- (R) — Reported
- (S) — Survey
- (D) — Description
- L.B. # 148 — Heidt & Associates Certificate of Authorization Number
- D.B. — Deed Book
- O.R. — Official Record Book
- Pg. — Page
- P.K. Nail — Parker Kalon Nail
- R/W — Right of Way
- ℄ — Centerline
- TECO — Tampa Electric Company
- (utility pole symbol) — Utility Pole
- (Fnd) — Found
- Conc. Mon — Concrete Monument

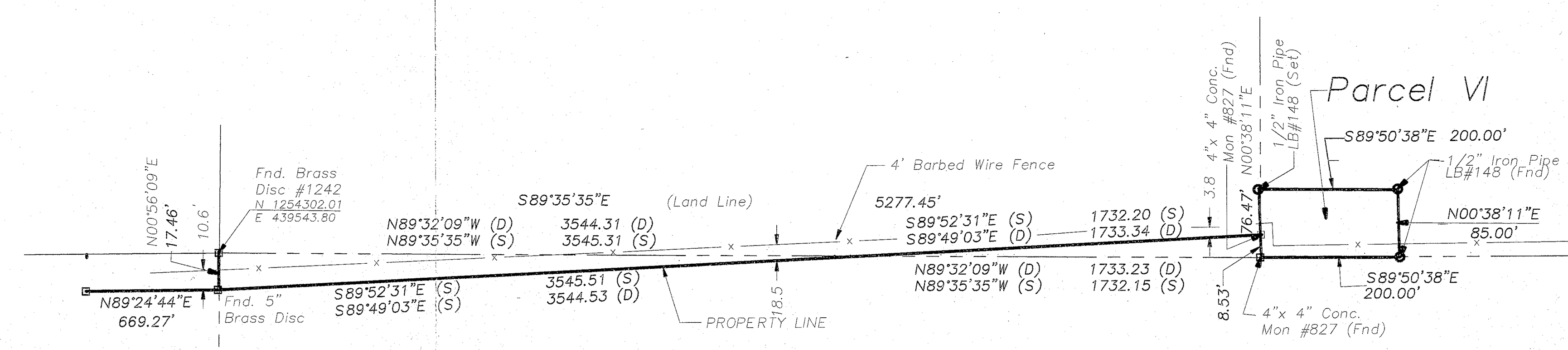
MONITOR WELL INFORMATION						
WELL NO.	ELEV. TOP OF P.V.C.	ELEV. TOP OF DISK	NORTHING	EASTING	LATITUDE	LONGITUDE
19	129.936	127.325	1251559.24	444916.25	27°46'36.63"	82°10'13.26"
19–A	129.033	128.681	1251553.49	444887.87	27°46'36.57"	82°10'13.57"
20–A	132.316	129.368	1249107.70	441919.96	27°46'12.31"	82°10'46.57"
20–B	133.761	129.995	1249102.46	441898.39	27°46'12.26"	82°10'46.81"
22	129.716	126.848	1248959.24	440371.72	27°46'10.82"	82°11'03.81"
24	129.309	126.302	1249130.42	438466.20	27°46'12.48"	82°11'25.02"
28	132.085	128.750	1251020.59	438871.17	27°46'31.21"	82°11'20.55"
30	129.438	126.314	1252255.34	439700.69	27°46'43.45"	82°11'11.33"
32	129.993	127.161	1253483.17	441119.00	27°46'55.63"	82°10'55.56"
35	144.772	141.938	1253860.96	444471.26	27°46'59.42"	82°10'18.25"
35–A	124.126	120.546	1254134.55	444921.99	27°47'02.13"	82°10'13.23"
36	154.433	150.738	1251905.18	444529.04	27°46'40.05"	82°10'17.57"
38	132.754	128.689	1249769.18	442697.94	27°46'18.87"	82°10'37.92"
40	125.227	122.305	1249498.17	438208.66	27°46'16.12"	82°11'27.90"
41	125.978	122.525	1249478.01	438213.14	27°46'15.92"	82°11'27.85"
42	116.649	113.789	1253747.88	440992.42	27°46'58.25"	82°10'56.98"
56	133.254	129.647	1251702.21	440869.10	27°46'37.99"	82°10'58.32"

SOUTHEAST COUNTY LANDFILL BOUNDARY SURVEY



DETAIL "A"

NOT TO SCALE



DETAIL "B"

NOT TO SCALE

NOTE:
Heidt & Associates, Inc. makes no representations or guarantees pertaining to easements, rights-of-way, set back lines, reservations, agreements and other similar matters.

FOR LEGAL DESCRIPTIONS AND ADDITIONAL DETAILS SEE SHEET 2 OF 3

This Survey Prepared For HILLSBOROUGH COUNTY

REVISIONS					
Description	Date	Dwn.	Ck'd	P.C.	Order No.
Revise Well Site Info	10/15/87	PAD	PAD		
Added Note Regarding Control Monuments and Coordinates	2/1/88	RET	PAD		
RESURVEY	7/7/94	PBM	PAD	CH	HBC-MS-115
Added Monitor Well and Staff Gauge Data	11/96	PBM	PAD	RO	HBC-MS-145

SURVEYOR'S CERTIFICATE
This certifies that a survey of the hereon described property was made under my supervision and meet the Minimum Technical Standards set forth by the Florida Board of Land Surveyors, pursuant to Section 472.027, Florida Statutes.
FLORIDA REGISTERED LAND SURVEYOR NO. 3881
THIS SURVEY NOT VALID UNLESS IMPRINTED WITH AN EMBOSSED SURVEYOR'S SEAL.

HEIDT & ASSOCIATES, INC.
CIVIL ENGINEERING
LAND SURVEYING
SWANN PLAZA
2212 Swann Avenue
Tampa Florida 33606
Phone (813) 253-5311

Drawn: PAD | Checked: RP | P.C. VH | App'd: PAD
Date: Sept. 17, 1987 | Order No. HBC-MS-87-123


STREAM '3C2'
STREAM '3B2B'
TH-30
PPS-A
TH-58
HILLS SE LF, WTPF
TH-71
TH-70
TH-69
TH-36A
TH-68
TH-19
SMITH LAKE #1-A (staff gauge)
HILLS SE LF, Expansion
TH-28A
009
007
TH-64
TH-57
Pond A
TH-61
TH-61A
HILLS SE LF, Phases I-VI WACS facility #41193
TH-65
SMITH LAKE #1-D
TH-38A
TH-40
TH-66
TH-67
TH-22A
STREAM '3A'

Hillsborough Southeast County Landfill -- latitude/longitude locations for environmental monitoring locations											
well_name	lat_dd	lat_mm	lat_ss	long_dd	long_mn	long_ss	elevation	surv_rec'd	insp_date	location	site_area
TH-19/TH-19A	27	46	38.2	82	10	12.9	152 ft	7/23/2002		Hills SELF	Phases I - VI
TH-22/TH-22A	27	46	12	82	11	8.8	153 ft	7/23/2002		Hills SELF	Phases I - VI
TH-28/TH-28A	27	46	32.7	82	11	19.7		(Recheck)	11/18/2002	Hills SELF	Phases I - VI
TH-30	27	46	44.3	82	11	9	115 ft		11/18/2002	Hills SELF	Phases I - VI
TH-38A/TH-38B	27	46	20.2	82	10	37.2	204 ft	7/23/2002		Hills SELF	Phases I - VI
TH-40	27	46	17.1	82	11	27.2	125 ft	7/23/2002		Hills SELF	Phases I - VI
TH-57	27	46	27.9	82	11	21.9		(Recheck)	4/9/2003	Hills SELF	Phases I - VI
TH-58	27	46	39.1	82	11	16.1		(Recheck)	4/9/2003	Hills SELF	Phases I - VI
TH-65	27	46	27.5	82	10	35.6	43.1 m		7/30/2003	Hills SELF	Phases I - VI
TH-66	27	46	20.3	82	10	39.1	47.0 m		7/30/2003	Hills SELF	Phases I - VI
TH-67	27	46	16.6	82	10	40.1	137 ft		10/4/2005	Hills SELF	Phases I - VI
Leachate effluent (Pond A)	27	46	29.9	82	10	39.7	115 ft		11/18/2002	Hills SELF	Phases I - VI
Leachate influent (Sampling @ PPS-A)	27	46	41	82	11	5			4/9/2003	Hills SELF	Phases I - VI
well_name	lat_dd	lat_mm	lat_ss	long_dd	long_mn	long_ss	elevation	surv_rec'd	insp_date	location	site_area
TH-36A	27	46	41.9	82	10	15.3	126 ft	7/23/2002		Hills SELF	Section 7
TH-59	27	46	36.8	82	10	39.6	150 ft		10/4/2005	Hills SELF	Section 7
TH-60	27	46	35	82	10	41.5	176 ft		10/4/2005	Hills SELF	Section 7
TH-61 (P-9D)	27	46	29.2	82	10	33.4	48.7 m		7/30/2003	Hills SELF	Section 7
TH-64	27	46	32.6	82	10	31.6	130 ft		10/4/2005	Hills SELF	Section 7
Leachate influent (Sampling @ Sect. 7)	27	46	32.8	82	10	41.7			4/9/2003	Hills SELF	Section 7
TH-59C	27	46	37.5	82	10	39.7			4/7/2006	Hills SELF	Section 7
TH-60C	27	46	34.9	82	10	42			4/7/2006	Hills SELF	Section 7
well_name	lat_dd	lat_mm	lat_ss	long_dd	long_mn	long_ss	elevation	surv_rec'd	insp_date	location	site_area
TH-62	27	46	40	82	10	36.8			4/7/2006	Hills SELF	Section 8
TH-63	27	46	42.2	82	10	35.3			4/7/2006	Hills SELF	Section 8
TH-68	27	46	37.8	82	10	29.2			4/7/2006	Hills SELF	Section 8
well_name	lat_dd	lat_mm	lat_ss	long_dd	long_mn	long_ss	elevation	surv_rec'd	insp_date	location	site_area
TH-61A	27	46	28.9	82	10	33.6			8/26/2008	Hills SELF	Section 9
TH-69	27	46	38.1	82	10	47.1			8/26/2008	Hills SELF	Section 9
TH-70	27	46	40.8	82	10	44.4			8/26/2008	Hills SELF	Section 9
TH-71	27	46	44.3	82	10	41.7			8/26/2008	Hills SELF	Section 9
Leachate influent (Sampling @ Sect. 9)	27	46	34.7	82	10	44.8			8/26/2008	Hills SELF	Section 9
well_name	lat_dd	lat_mm	lat_ss	long_dd	long_mn	long_ss	elevation	surv_rec'd	insp_date	location	site_area
3A	27	46	12	82	11	34.8	125 ft	7/23/2002		Hills SELF	Surface water
3B2B	27	46	48.4	82	11	19.4	82 ft	7/23/2002		Hills SELF	Surface water
3C2	27	47	3.4	82	11	26.4	102 ft	7/23/2002		Hills SELF	Surface water
Smith Lake 1-A (Staff gauge location)	27	46	38.5	82	10	12	139 ft		11/18/2002	Hills SELF	Surface water
Smith Lake 1-D (Sampling location)	27	46	21	82	10	36.6			4/9/2003	Hills SELF	Surface water
well_name	lat_dd	lat_mm	lat_ss	long_dd	long_mn	long_ss	elevation	surv_rec'd	insp_date	location	site_area
TH-20A/TH-20B	27	46	13.2	82	10	45.4	177 ft	7/23/2002		Hills SELF	Inactive wells
TH-24/TH-24A	27	34	3.3	82	11	53		7/23/2002		Hills SELF	Inactive wells
TH-26	27	46	23.2	82	11	25.2		(Recheck)	4/9/2003	Hills SELF	Inactive wells
TH-32	27	46	56.6	82	10	55.8	150 ft	7/23/2002		Hills SELF	Inactive wells
TH-35	27	47	0.6	82	10	18	124 ft	7/23/2002		Hills SELF	Inactive wells
TH-35A	27	47	3.8	82	10	13	47.2 m		7/30/2003	Hills SELF	Inactive wells
TH-41	27	46	13.7	82	11	24.4	52.3 m		7/30/2003	Hills SELF	Inactive wells
TH-42	27	46	57.6	82	10	55.5	128 ft		11/18/2002	Hills SELF	Inactive wells
TH-56	27	46	39.8	82	10	58.5	118 ft	7/23/2002		Hills SELF	Inactive wells
P-4S	27	46	43.8	82	10	42.8			8/11/2006	Hills SELF	Inactive wells
P-4D	27	46	43.8	82	10	42.8			8/11/2006	Hills SELF	Inactive wells
P-5D (P-5S??)	27	46	58	82	10	29.9			8/26/2008	Hills SELF	Inactive wells
P-6D	27	46	54.3	82	10	19.1	159 ft		11/18/2002	Hills SELF	Inactive wells
P-7D	27	46	39.7	82	10	26.8			7/13/2007	Hills SELF	Inactive wells
P-8D	27	46	27.6	82	10	35.5			7/13/2007	Hills SELF	Inactive wells
P-11D	27	46	31.4	82	10	41.7			7/13/2007	Hills SELF	Inactive wells

TABLE 2-2. MONITORING WELL CHARACTERISTICS SUMMARY
SOUTHEAST COUNTY LANDFILL

Well No.	Purpose	Aquifer Monitored[1]	Appx Elevation at Well[2] Ft., NGVD	Top of Screen or Open Hole		Length Of Screen Or Open Hole, Ft	Total Depth		MP[5]	MP Elev	Construction Date	Last Survey Date	Historical Water Level	
				Ft, BLS[3]	Ft, NGVD[4]		Ft, BLS	Ft, NGVD		Ft, NGVD			High (Ft. NGVD)	Low (Ft. NGVD)
TH-19	Background	Floridan	127.50	146.0	-18.68	5	151.0	-23.68	TPVC[6]	130.05	12/82	3/97		
~~TH-22~~	~~Background~~	~~Surficial~~	~~126.37~~	~~5.0~~	~~121.85~~	~~20~~	~~25.0~~	~~101.85~~	~~TPVC~~	~~128.82~~	~~12/82~~	~~3/97~~		
~~TH-28~~	~~Detection~~	~~Surficial~~	~~128.35~~	~~26.0~~	~~102.75~~	~~5~~	~~31.0~~	~~97.75~~	~~TPVC~~	~~130.60~~	~~12/82~~	~~3/97~~		
~~TH-30~~	~~Detection~~	~~Surficial~~	~~126.09~~	~~23.0~~	~~103.34~~	~~20~~	~~43.0~~	~~83.34~~	~~TPVC~~	~~128.37~~	~~12/82~~	~~3/97~~		
~~TH-38A~~	~~Background~~	~~Surficial~~	~~128.36~~	~~14.0~~	~~114.69~~	~~5~~	~~19.0~~	~~109.69~~	~~TPVC~~	~~131.20~~	~~12/82~~[8]	~~3/97~~		
TH-22A[9]	Background	Surficial	126	2	124	10	12	114[11]	TPVC	TBD[10]	TBD	TBD	126.12[12]	122.20[12]
TH-28A[9]	Detection	Surficial	128	18	110	10	28	100[11]	TPVC	TBD[10]	TBD	TBD	107.84[13]	102.88[13]
TH-38B[9]	Background	Surficial	128	2	126	10	12	116[11]	TPVC	TBD[10]	TBD	TBD	125.60[14]	118.74[14]
TH-40	Detection	Floridan	122.05	158.0	-35.70	5	163.0	-40.7	TPVC	124.77	12/82	3/97		
TH-57	Detection	Surficial	ND[7]	14	111.09	10	24	101.09	TPVC	128.09	12/82	3/97		
TH-58	Detection	Surficial	ND	18	109.67	10	28	99.67	TPVC	127.67	12/82	3/97		

Data from Hillsborough County Solid Waste Management Department

Notes:
1. Aquifer from which the well is deriving its water.
2. Elevation of brass disk set in concrete pad.
3. Below land surface
4. National Geodetic Vertical Datum of 1929.
5. Measuring point
6. Top of PVC Casing
7. No data
8. TH-38 drilled in 1982 and replaced by TH-38A in 1987.
9. Proposed replacement well.
10. TBD - to be determined.
11. More precise elevations will be listed following well construction and surveying.
12. Historical high or low for TH-22
13. Historical high or low for TH-28
14. Historical high or low for TH-38A

REC'D 3/4/02, PART OF SCS ENGINEERS RAI RESPONSES FOR OPERATING PERMIT RENEWAL

Revised March 4, 2002

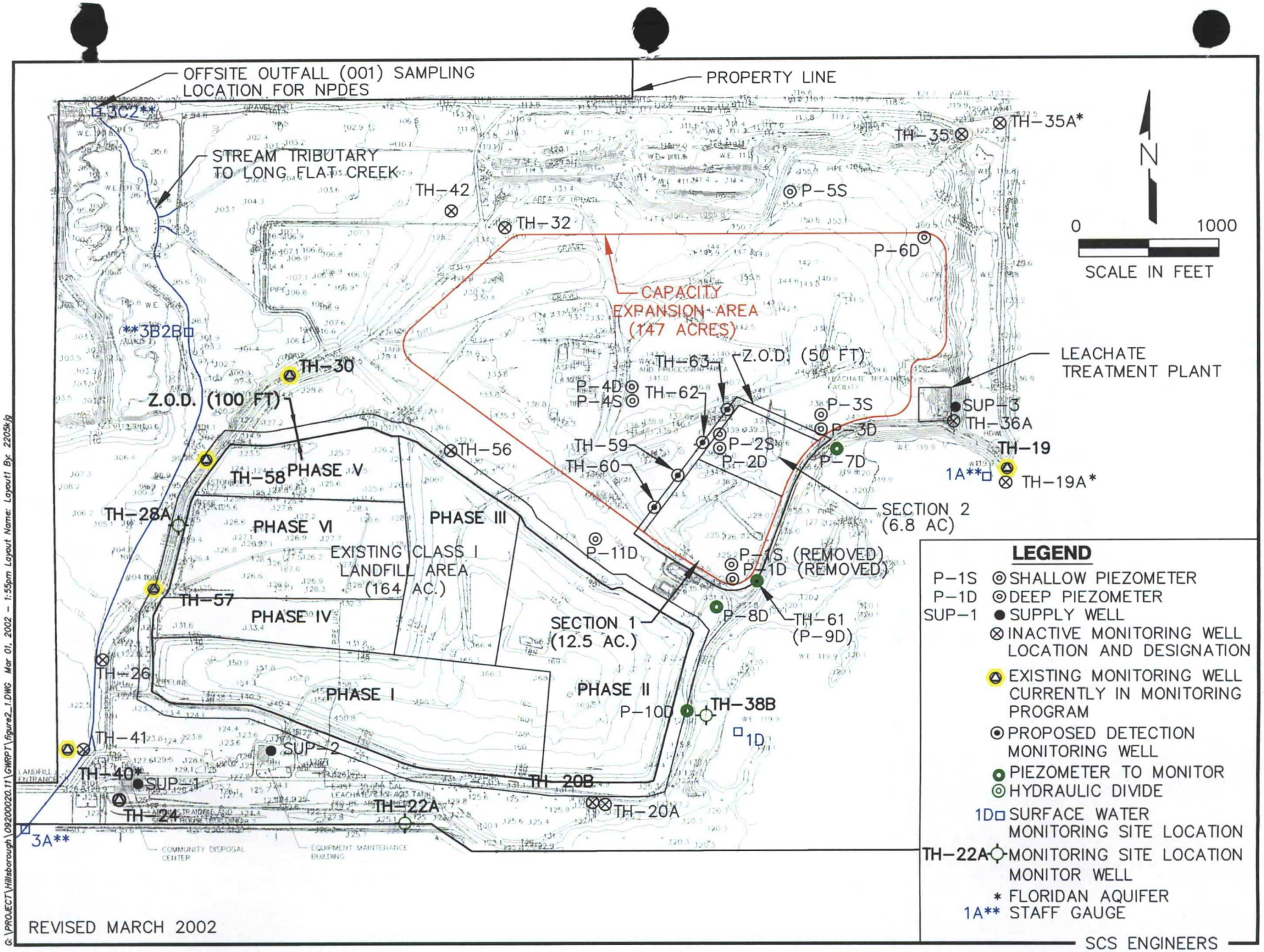


Figure 2–1. Location of Monitoring Wells, Piezometers, and Surface Water Sampling Points.