

27540 FACILITY FILE! VOLUSIA COUNTY
Admin TOMOKA FARMS ROAD
LANDFILL

Florida Department of Environmental Regulation

Central District • 3319 Maguire Boulevard, Suite 232 • Orlando, Florida 32803-3767 • 407-894-7555

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary
Alex Alexander, Deputy Assistant Secretary

November 18, 1988

Briley, Wild and Associates
Post Office Box 607
Ormond Beach, Florida 32074-0607

OCD-SW-88-1114

Attn: Lee A. Powell, P.E.
Project Engineer

Volusia County - SW
Tomoka Farms Road Landfill

Dear Mr. Powell:

The requests to use a 160 acre closed portion of the Tomoka Landfill, Class I, for disposal of construction and demolition debris submitted on October 21 and November 4, 1988 have been reviewed.

The department has no objections provided the procedures described in your submittals are followed. Please note that all requirements that pertain to the closed portion of the landfill shall continue to apply. Also note that disposal of construction and demolition debris is exempt from permitting under Rule 17-7.030(1)(a)3, Florida Administrative Code (F.A.C.) and from closure requirements under Rule 17-7.070(1)(d), F.A.C.

If you have any questions, please call me at 407/894-7555 or write to me at the above address.

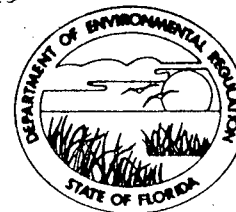
Sincerely,

A. T. Sawicki, P.E.
Section Manager
Solid Waste Program

ATS/ew

cc: T. M. McClelland; Director - Volusia County Public Works
J. Reese - DER - Tallahassee
B. Wallace - DER - Ground Water Section

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION



Permitt.
Corresp

Interoffice Memorandum

For Routing To Other Than The Addressee

To: _____ Location: _____
To: _____ Location: _____
To: _____ Location: _____
From: _____ Date: _____

TO: Juanitta Bader Clem, Engineer III
Central Florida District

THROUGH: Bill Hinkley, Administrator *WH*
Solid Waste Section

FROM: John A. Reese, Engineer *JA*
Solid Waste Section

DATE: April 26, 1988

SUBJECT: Volusia County - SW, Tomoka Farms Road Landfill

This is to confirm our telephone conversation on the proposed PVC liner for temporary sludge pits at Tomoka Farms Road Landfill. A similar configuration of materials was used in a small landfill in Palm Beach County i.e., synthetic membrane (PVC) underlain by a reinforcing geotextile material. Florida Administrative Code Rule 17-7.050(4)(d)2. requiring a 30 mil reinforced membrane does not specifically state the reinforcing is to be part of the membrane. Therefore, an external reinforcing material was allowed upon submission of test data by the vendor which showed that the configuration of the two materials would be equal or superior to the performance scrim sandwiched between to plastic layers. If a similar demonstration of performance can be made for the materials proposed for the temporary sludge lagoons, then it is possible that they could be used for this purpose.

However, PVC is subject to deterioration in sun light and must be shielded. It is not clear how sand will be retained as a protective material on the sides of the sludge lagoon.

JAR/tkm

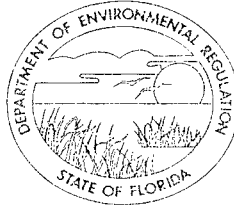
27540

FACILITY FILE: VOLUSIA COUNTY
TOMOKA FARMS ROAD LANDFILL
GW - well constr.
Surf. Water - loc.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

CENTRAL FLORIDA DISTRICT

3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY
ALEX ALEXANDER
DISTRICT MANAGER

April 21, 1987

OCF-SW-87-0190

Duke Woodson
Director Of Resource Management
St. John's River Water
Management District
P.O. Box 1429
Palatka, FL 32077

Volusia County - SW
Tomoka Farms Road Landfill
Application No. S064-121811


3064(0007) / W

Dear Mr. Woodson:

Please find enclosed a copy of additional information received on subject landfill. Please review the enclosed information as I look forward to your comments as soon as possible.

Thank you for your cooperation.

Sincerely,


Juanitta Bader Clem, Supervisor
Solid Waste Section

JBC/sy

cc: John Reese, DER ✓
Blanche Wallace, Groundwater Section

APR 28 1987

EA, SOLID WASTE



briley, wild & associates, inc.
CONSULTING ENGINEERS AND PLANNERS

April 15, 1987

VC 85097-6E

Ms. Juanita Bader Clem
Supervisor, Solid Waste Section
Florida Department of Environmental Regulation
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803

Re: Volusia County
Tomoka Farms Road Landfill
Application No. S064-121811



Dear Ms. Clem:

Enclosed, as requested in your letter of January 14, 1987, are the following:

1. Figure 1, showing the location of the monitoring wells, including those recently constructed under the County's approved groundwater monitoring plan.
2. Figure 2, showing the location of the surface water monitoring locations.
3. Test Site Directory, relating the local designation, former DER number, and the present DER number for the monitoring wells and surface water test sites.
4. The geologists report prepared by Dr. David Gomberg on the recently installed wells.

The new wells have been sampled and the laboratory results will be submitted when the analyses are complete.

At this time, I believe that all information requested by the DER for renewal of the County's operating permit has been supplied.

Very truly yours,

BRILEY, WILD & ASSOCIATES, INC.
CONSULTING ENGINEERS & PLANNERS

Lee A. Powell
Lee A. Powell, P.E.

LAP/nlc

Enclosure

cc: Mr. James Griffin

Figure 1. Location of Monitoring Wells

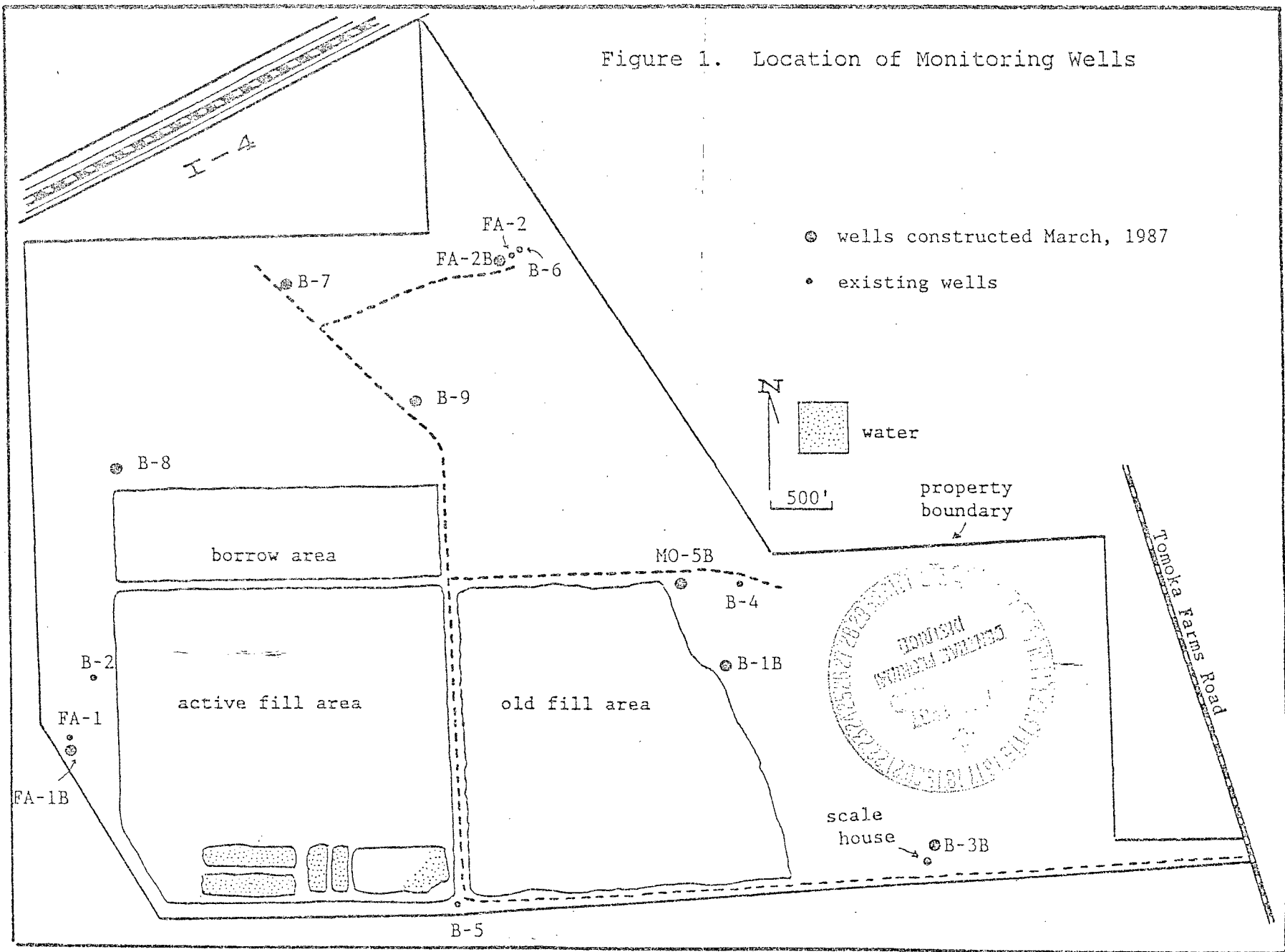
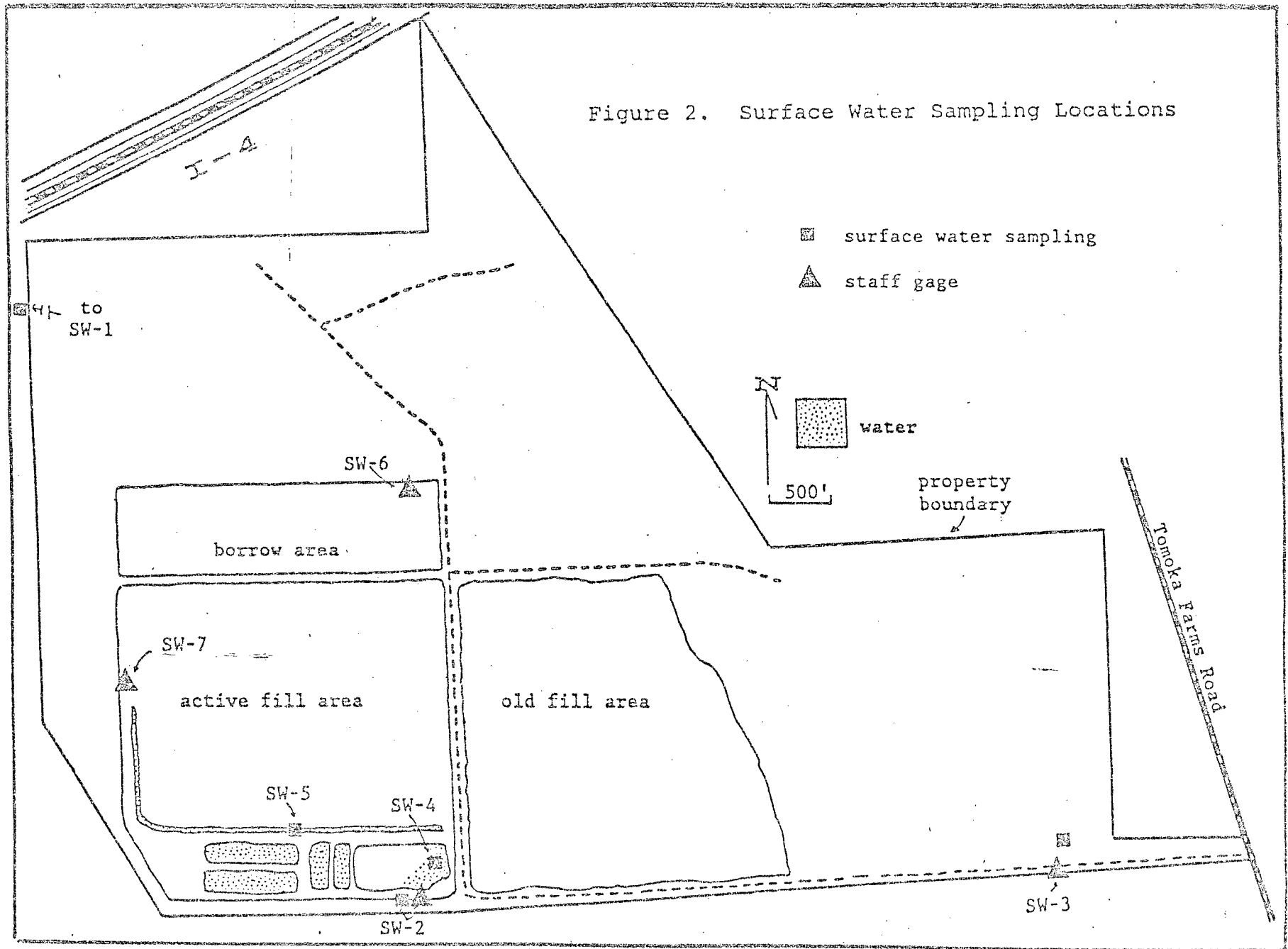


Figure 2. Surface Water Sampling Locations



VOLUSIA COUNTY
TOMOKA FARMS ROAD LANDFILL

TEST SITE DIRECTORY

<u>Test Site</u>	<u>Old Site Designation</u>	<u>New Site Designation</u>	<u>Description</u>	<u>Type of Monitoring</u> (1)
FA-1B	DER64A71M13	3064A12092	Deep Well	WQ, WL
FA-2B	DER64A71M14	3064A12093	Deep Well	WQ, WL
B-1B	DER64A71M06	3064A12085	Shallow Well	WQ, WL
B-2	DER64A71M01	3064A12081	Shallow Well	WQ, WL
B-3B	DER64A71M15	3064A12094	Shallow Well	WQ, WL
B-4	DER64A71M08	3064A12087	Shallow Well	WQ, WL
B-5	DER64A71M02	3064A12082	Shallow Well	WQ, WL
B-6	DER64A71M11	3064A12090	Shallow Well	WQ, WL
B-7	-	-	Shallow Well	WL
B-8	-	-	Shallow Well	WL
B-9	-	-	Shallow Well	WL
MO-5B	DER64A71M05	3064A12084	Shallow Well	WQ, WL
Scale House	-	-	Deep Well	WQ
SW-1	NPDES 1	3064A12225	Surf Water	WQ, WL
SW-2	NPDES 2	3064A12226	Surf Water	WQ, WL
SW-3	NPDES 3	3064A12227	Surf Water	WQ, WL
SW-4	DER64A71S08	3064A12223	Surf Water	WQ, WL
SW-5	-	-	Surf Water	WQ, WL
SW-6	DER64A71S05	3064A12222	Surf Water	WL
SW-7	-	-	Surf Water	WL

(1) WQ = Water Quality/WL = Water Level

David N. Gornberg, Ph.D.
Water Resources Consultant

2247 S.E. 27th ST.
CAPE CORAL, FL 33904
(813) 574-6196

April 13, 1987

Mr. Lee A. Powell, P.E.
Briley, Wild & Associates, Inc.
P. O. Box 607, U.S. Hwy. #1 North
Ormond Beach, FL 32074

Re: Tomoka Landfill - Installation of Monitoring Wells

Dear Lee:

This letter, with the accompanying tables and illustrations, describes the 8 monitoring wells recently constructed at Tomoka Landfill. The wells are those recommended in my 1986 report on monitoring at the landfill, and subsequently authorized by DER for inclusion into the monitoring network. Table 1 gives relevant specifications, and Figure 1 shows well locations - which in a few cases are slightly different than I originally proposed.

The wells were constructed, under my supervision, by Bob's Well Drilling, during the period March 2 through March 11, 1987. Holes were drilled using the mud-rotary technique, and drill cuttings were collected at 5-foot intervals or less. Samples were described by me, in the field, and are reported in the attached geologic logs. I retain the samples in my permanent collection.

Table 1. Well Specifications

Well	Screened or Open Interval ¹	Total Depth ¹	Casing Diam. (inches)	Development (__min at __gpm)
B-1B	28-33	33	2	90 at 5
B-3B	17-22	22	2	45 at 11
MO-5B	27-32	32	2	120 at 3
B-7	27-32	32	2	90 at 5
B-8	43-48	48	2	120 at 2
B-9	28-33	33	2	120 at 2
FA-1B	91-92	92	4	20 at 30
FA-2B	91-94	94	4	45 at 20

¹in feet below ground

With regard to the 6 shallow, screened wells, we drilled a 6" hole to the desired depth using biodegradable drilling fluid (VariFlo). The interval for screening was selected by frequent collection of cuttings, to identify the shallowest stratum capable of yielding water. Two-inch diameter, threaded and coupled casing and screen (Brainard-Kilman TriLoc) were put into the hole, which was flushed of drilling mud by high volume pumping through the casing. (The water source, for all drilling, was the Floridan well at the maintenance facility). We then filled the annular space with enough road-grade, quartz sand to cover the top of the screen by at least a few feet. Bentonite pellets (1/3 bucket) were placed above the sand, followed by neat cement to land surface. Wells were developed by pumping, on average about 1½ hours, with a centrifugal pump. Figure 2 shows a generalized shallow well, including finishing details not described here.

Regarding Well FA-1B, we drilled an 8" diameter hole 3 feet into limestone, using Poly-Gel drilling mud. Four-inch diameter TriLoc casing, with centralizers, was inserted to the bottom, and the annular space was then pressure grouted, through the casing, with neat cement. The well was completed 6 days later, by drilling out the cement to 1 foot below the casing, where we penetrated a thin cavity that yielded sufficient water for sampling. The well was developed by blowing with compressed air. Figure 3 shows Well FA-1B.

Concerning Well FA-2B, the hole, casing, and grout were as described above for FA-1B. Upon drilling out the cement, however, we encountered two sediment-filled cavities, as occasionally are found beneath the first limestone of the Floridan Aquifer. After sustained development with compressed air failed to free these cavities of sediment, the hole was deepened (to insure that more cavities were not present), then filled into the casing-- by pumping through the drill rod - with neat cement. The well was completed 2 days later by drilling a 2-inch hole through the cement, to expose a 3-foot interval of limestone and voids. Figure 4 shows Well FA-2B.

If you have comments or questions, please give me a call. Thank you for this opportunity to help.

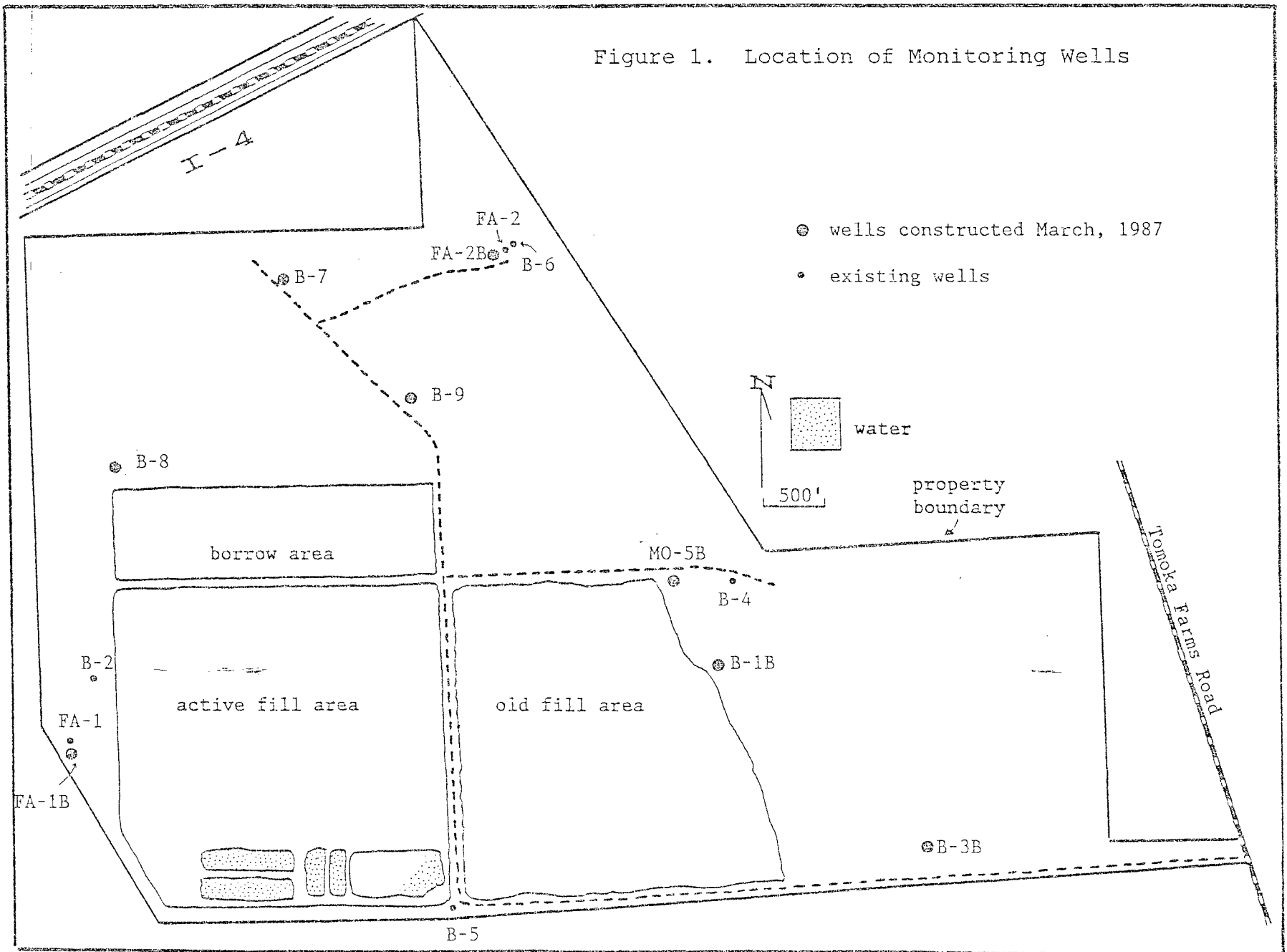
Very truly yours,



David N. Gomberg

encl: as described above

Figure 1. Location of Monitoring Wells



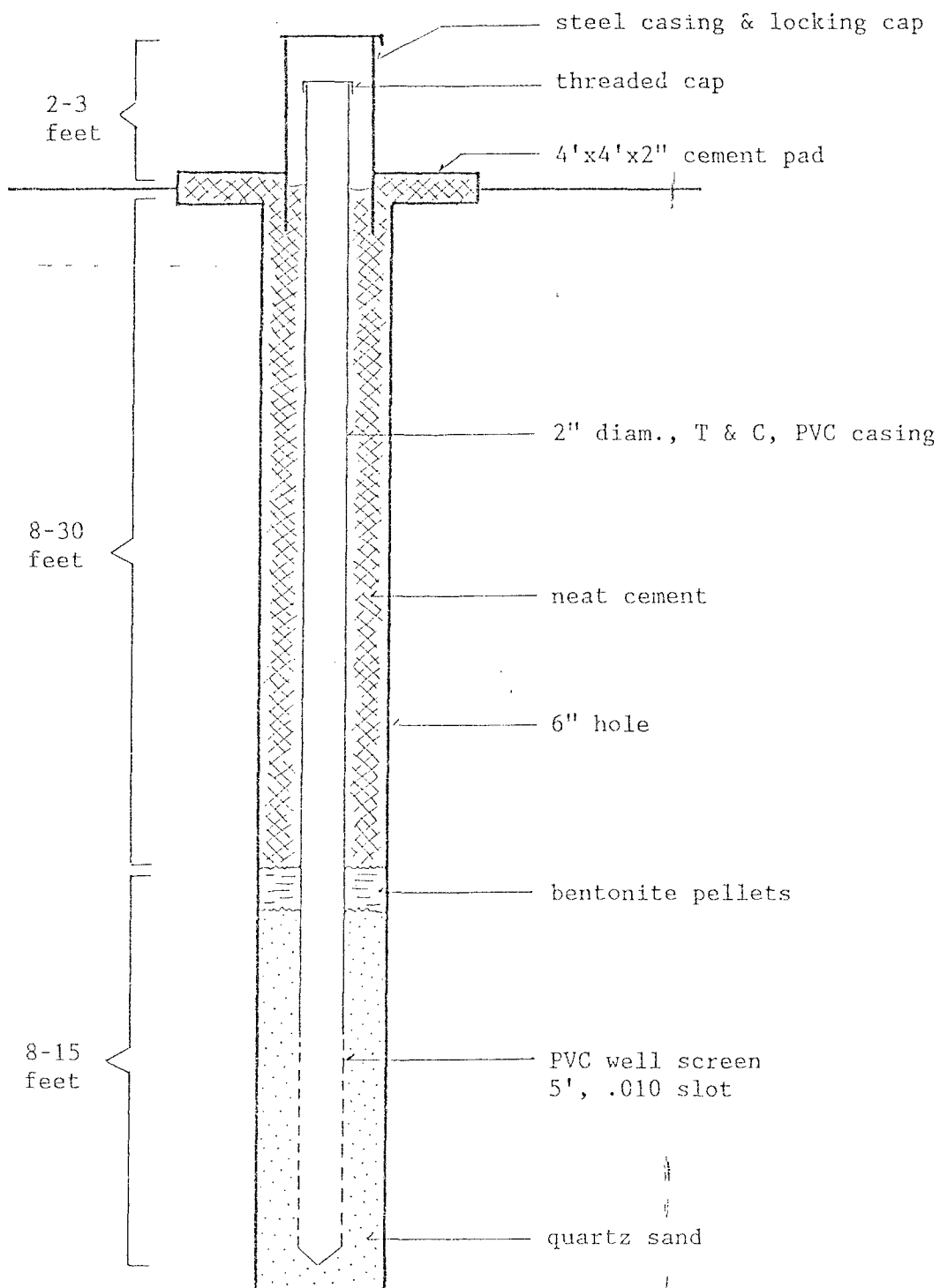


Figure 2. Schematic of Wells B-1B, B-3B, MO-5B, B-7, B-8, B-9

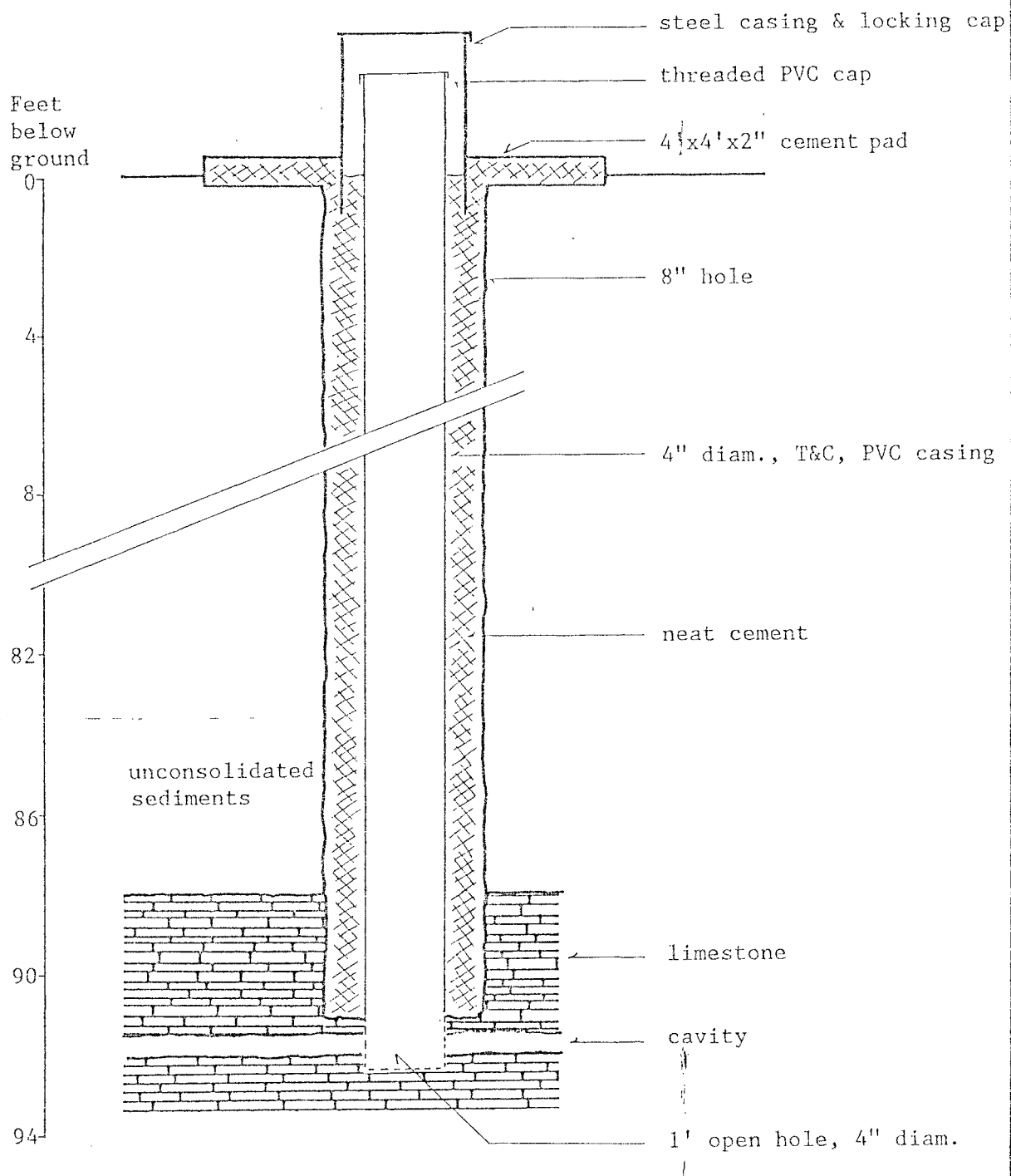


Figure 3. Well FA-1B Schematic

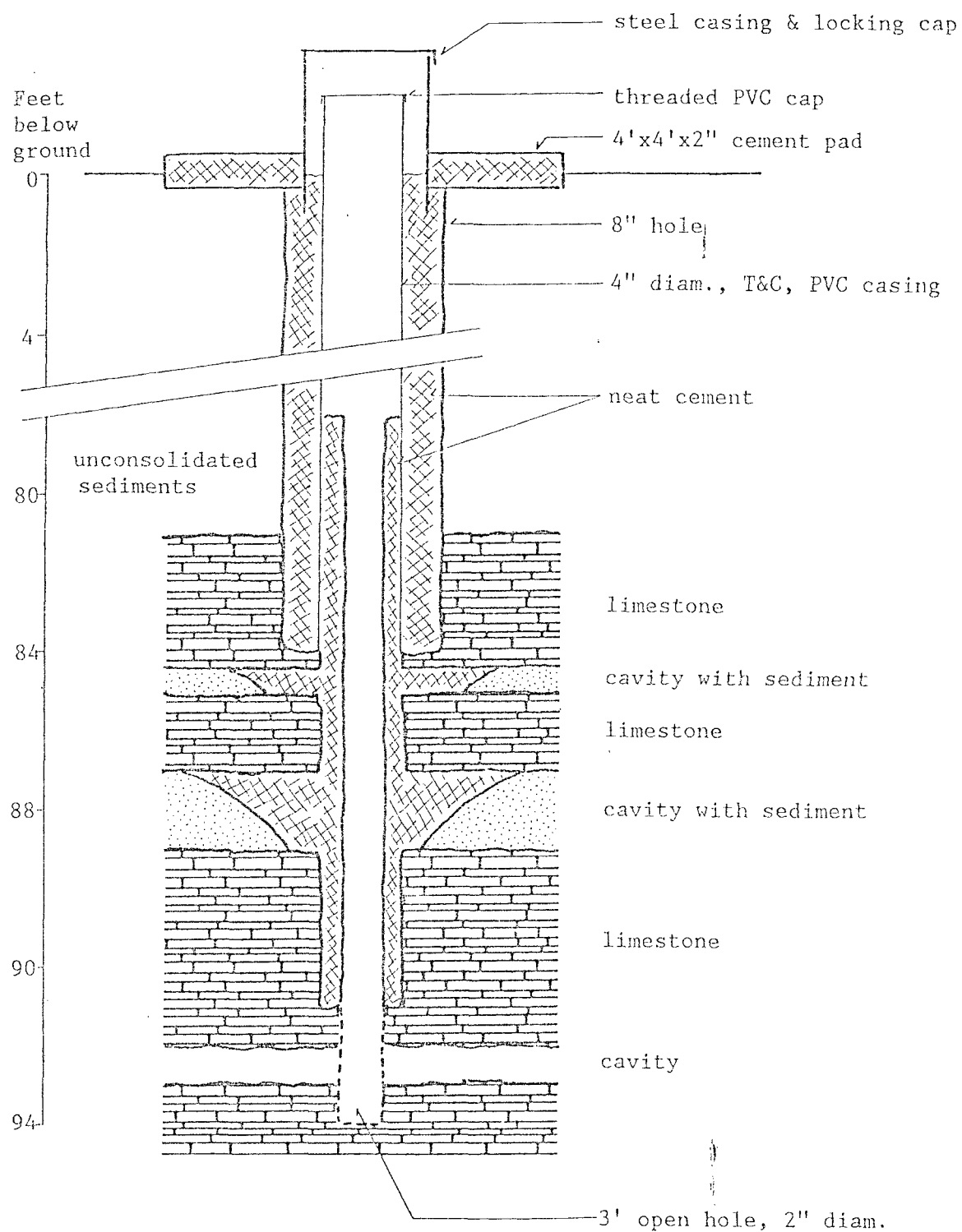


Figure 4. Well FA-2B Schematic

Geologic Log - Site B-1B

Description	Depth (ft.)	Thickness (ft.)
Sand and shell fill: gray and tan fine to med. sand with white broken shell	0-2.5	2.5
Sand, fine, gray to dk. gray, with minor roots and org. debris	2.5-3	0.5
Sandy clay; orange-tan hardpan to 5'; mottled tan and lt. gray, firm sandy clay to 5-10'	3-10	7
Clay, gray, soft, sl. sandy, with nodules of v. lt. tan, firm clayey sand; color becomes v. dk. gray-brn. at 20-27	10-27	17
Sand, coarse to v. coarse, rounded, gray, with minor grn-gray sandy clay	27-32	5
Clayey sand, fine, lt. gray-brn.	32-35	3

Geologic Log - Site B-3B

Description	Depth (ft.)	Thickness (ft.)
Clayey sand; mottled lt. brn. and orange-brn. hardpan with v. dk. brn. roots and org. debris	0-4	4
Sandy clay, firm, gray-brn., with abundant mottled lt. gray and orange-brn. clayey sand nodules; minor org. debris throughout	4-18	14
Shelly clay, as above but with 10-20% coarse, tan, gray, and blk. weathered shell	18-20	2
Shell, gray and tan, coarse, weathered, with 20-30% fine to med. gray sand	20-23	3

Geologic Log - Site MO-5B

Description	Depth (ft.)	Thickness (ft.)
Sand and shell fill: gray and tan, fine to med. sand with white broken shell	0-2.5	2.5
Sand, fine, tan to brown, with minor org. debris	2.5-3	0.5
Sandy clay; stiff, mottled dk. brn., dk. reddish brn. and dk. gray, with abundant wood and org. debris, to 5'; v. dk. brn., firm, with abundant roots and org. debris, to 11'; brn.-gray, firm, with occ. clasts of coquina, to 27'	3-27	24
Sand, fine, lt. brn., silty in part, with 20-30% coarse to v. coarse rounded sand	27-34	7

Geologic Log - Site B-7

Description	Depth (ft.)	Thickness (ft.)
Sand and shell fill: gray and tan fine to med. sand with white broken shell	0-1.5	1.5
Sand, fine, lt. gray, with minor org. debris	1.5-2	0.5
Sandy clay, stiff, tan to brn., with minor coarse, white to tan shell fragments	2-5	3
Clay, greenish-gray, med. soft, with nodules of stiff lt. brn. clayey sand and 5% white to tan shell	5-10	5
Sandy clay; brn.-gray, firm, v. sandy, with minor coarse white shell, to 18'; sl. sandy, soft, with minor shell to 20'; lt. brn., firm, sandy, with lenses or thin beds of fine, lt. tan sand, to 27'	10-27	17
Sand, lt. gray, coarse to v. coarse, rounded, silty with fine sand in part	27-31	4
Clay, lt. grn.-gray, soft, with minor white to gray shell and lenses or thin beds of fine, v. lt. tan sand	31-33	2

Geologic Log - Site B-8

Description	Depth (ft.)	Thickness (ft.)
Sand and shell fill: gray and tan, fine to med. sand with white broken shell	0-2	2
Sand, fine, tan to gray, with minor org. debris at 2-3.5' and minor white, med. to coarse shell	2-5	3
Sandy clay; mottled lt. gray and tan, med. soft, with occ. coquina clasts to 9'; gray-brn. and lt. gray-green to 18'; brn., v. firm, v. sandy, with minor coarse, white and tan shell, to 21'; as above, with 10-20% shell, to 25'; as above, with no shell, to 30'	5-30	25
Clay, dk. gray to dk. grn.-gray, soft, sl. sandy, v. minor white to gray shell	30-44	14
Shell, coarse, tan to dk. gray, with abundant fine, tan sand and 5-15% dk. grn.-gray clay	44-49	5

Geologic Log - Site B-9

Description	Depth (ft.)	Thickness (ft.)
Sand and shell fill: gray and tan, fine to med. sand with white broken shell	0-1.5	1.5
Sand, fine, lt. gray to gray, with minor org. debris and roots	1.5-2	0.5
Clayey sand; mottled tan and orange-tan hardpan	2-5	3
Sandy clay; mottled tan and lt. greenish-gray, firm, to 10'; lt. gray to gray to lt. greenish-gray, firm, v. sandy, to 18'	5-18	13
Clay, lt. greenish-gray, med. soft, sl. sandy throughout	18-27	9
Sand, fine, tan, with 5-10% coarse to v. coarse, rounded sand and minor lt. greenish-gray clay	27-32	5
Clay, soft, mottled tan and green-gray, sl. sandy	32-33	1

Geologic Log - Site FA-1B

Description	Depth (ft.)	Thickness (ft.)
Sand, fine, gray to dk. gray, with minor roots and org. debris	0-.5	.5
Sandy clay; mottled lt. brn., gray and orange hardpan, with minor organic debris to 5'; gray with minor white, coarse shell, with brn.-orange hardpan nodules and v. dk. brn. peat nodules at 5-15'	.5-12	11.5
Sand, fine, lt. brn. to lt. gray, occ. mottled orange-brn., silty and sl. clayey throughout, with minor white shell	12-32	20
Sandy clay, gray, firm; minor mottling with orange-brn., clayey sand	32-37	5
Clay, dk. gray to dk. greenish-gray, sl. sandy, with minor white to tan shell fragments	37-47	10
Shelly sand; fine, gray sand with 20-30% pink, tan and gray coarse shell; 5-15% greenish-gray sandy clay throughout	47-62	15
Clayey sand, greenish-gray to lt. gray, med. firm, with abundant v. fine to coarse, gray, weathered shell	62-77	15
Clayey shell; white, tan, pink and gray, v. fine to coarse shell, with 20-30% gray f. sand and 20-30% gray and gray-green clay	77-88	11
Limestone, lt. tan, med. hard, with 1-foot cavity at 91-92'	88-92	4

Geologic Log - Site FA-2B

Description	Depth (ft.)	Thickness (ft.)
Sand, fine, lt. gray-tan, with roots and org. debris	0-.5	.5
Sandy clay; brn. to dk. brn. hardpan to 5', with blk. roots and org. debris; gray to tan, firm, v. sandy at 5'-8'	.5-8	7.5
Clayey sand, fine, lt. gray, firm, with clay increasing and darkening with depth	8-22	14
Sandy clay, greenish-gray, firm, with nodules of soft green and brown clay, and thin sandy layers	22-27	5
Sand, lt. tan-gray with nodules of soft green to brown clay; 5-10% v. coarse, rounded sand and minor white, med. to coarse shell at 32-37	27-37	10
Shelly sand; fine to v. fine, gray sand with 15-25% pink to gray, coarse shell frags., 10-20% gray-grn. soft clay	37-52	15
Shell, coarse, white to dk. gray, with 15-25% fine to v. fine gray sand; limestone clasts common at 77-81	52-81	29
Limestone, tan, soft to med. hard, with cavities at 84-86', 87-89', both containing v. fine gray-grn. sand	81-94	13

DEPARTMENT OF ENVIRONMENTAL REGULATION

CENTRAL FLORIDA DISTRICT

3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

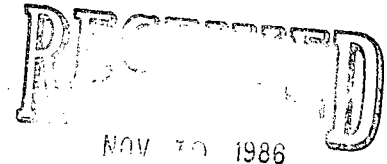
ALEX ALEXANDER
DISTRICT MANAGER

November 17, 1986

Briley, Wild and Assoc.
P.O. Box 607
Ormond Beach, FL 32074

OCF-SW-86-0359

Attn: Lee Powell, P.E.



Volusia County - SW
Tomoka Farms Road Landfill
Permit No.: SO64-121811

EA, SOLID WASTE

Dear Mr. Powell:

The department has received your letter on the referenced application on November 4, 1986. Upon review, it was determined that the following is required to complete the application. (Rule 17-4.055, Florida Administrative Code, F.A.C.)


1. The construction detail for monitoring wells are acceptable to the department. The proposed new groundwater quality monitoring wells listed on page 45 of the groundwater monitoring plan meet the requirements of the department. Therefore, construction and sampling may begin as soon as possible. Please notify the Groundwater Section at least 15 days prior to the installation and sampling of any monitoring wells. The department will continue the review process upon receipt of the results of the analysis.
2. In order for the department to issue the operating permit renewal, the plans must be revised to show a final elevation of 75 feet M.S.L. A construction permit is required if the county wishes to pursue highrising the landfill above 75 feet M.S.L. as explained in the previous letter (OCF-SW-86-0314) dated October 23, 1986.

Tomoka Farms Road Landfill
OCF-SW-86-0359
November 17, 1986
Page Two

The review of the project will continue upon receipt of the above information pursuant to Section 120.60, Florida Statutes. The department may deny a permit application if the applicant, after receiving timely notice fails to correct errors, omissions, or supply additional information within a reasonable period of time.

Your cooperation will be appreciated. Please give me a call if you have any questions.

Sincerely,


Juanitta Bader Clem, Supervisor
Solid Waste Section

JBC/sy

cc: James L. Griffin, County of Volusia
John Reese, DER, Tallahassee
John Armstrong, DER, Orlando
Duke Woodson, SJRWMD

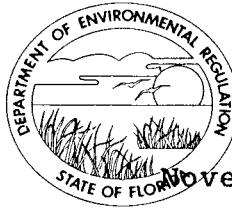
21540

FACILITY FILE: VOLUSIA COUNTY
TOMOKA FARMS ROAD LANDFILL
Permit.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

CENTRAL FLORIDA DISTRICT

3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

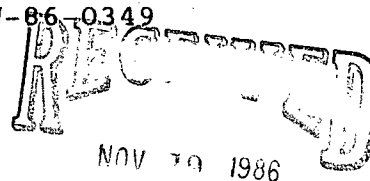
ALEX ALEXANDER
DISTRICT MANAGER

November 17, 1986 ✓

Volusia County Public Works
136 N. Florida Avenue
Deland, FL 32720

OCF-SW-86-0349

Attn: Thomas M. McClelland, Director



Volusia County - SW
Tomoka Farms Landfill
Permit No.: SO64-34352

EA, SOLID WASTE

Dear Mr. McClelland:

An inspection on October 15, 1986 was made to determine whether the referenced site is in compliance with Chapter 17-7, Florida Administrative Code. The attached inspection report indicates that at this time your facility which is classified as a Class I Landfill is not in compliance.

It was noted that:

1. The working face is excessive, thereby increasing the exposed area and use of unnecessary cover in violation of Rule 17-7.050(5)(L), Florida Administrative Code, F.A.C.
2. The side slopes on the working face are at a slope greater than thirty (30) degrees which does not lend itself to compaction or cover in violation of Rules 17-7.050(5)(j), (k) and (m), F.A.C.

Please review the enclosed report for any non-compliance items and within fifteen (15) days submit a schedule for corrective action.

If you have any questions, please contact this office at (305) 894-7555.

Sincerely,

Juanitta Bader Clem
Juanitta Bader Clem, Supervisor
Solid Waste Section

JBC/sy

cc: John Reese, Tallahassee
Paul Morrison, Enforcement Section

STATE OF FLORIDA - DEPARTMENT OF
SOLID WASTE INSPECTION

COUNTY Volusia D.E.R. REP. J.B.C.
SITE Tomoka Road FIELD CONTACT _____

REQUIREMENT	N/A	Comp	Non-Comp	Unkn	Inad
1. Signs indicating operating authority, hours, rates?		✓			
2. Effective barrier to prevent unauthorized entry?		✓			
3. All weather access road?		✓			
4. Dust controls?		✓			
5. Weighing scales or records of cubic yards received?		✓			
6. Attendant on site? (Class I mandatory)		✓			
7. Communication facilities? (Class I only)		✓			
8. Narrow working face?			✓		
9. Adequate quantity of acceptable cover available?				✓	
10. Initial cover?		✓			
11. Intermediate cover?		✓			
12. Vectors controlled?		✓			
13. Proper compaction?		✓			
14. White goods and vehicles compacted? (Note exceptions)				✓	
15. Thirty (30) degree side slopes? (approx.)			✓		
16. Gas control?	None				
17. Litter controls?		✓			
18. Dead animals covered daily?		✓			
19. Sludge disposal suitable? (if applicable)		✓			
20. Shredded waste properly disposed of?		✓			
21. Proper grading of completed cells?		✓			
22. Erosion controls for completed areas?			✓		
23. Final cover?		✓			
24. Suitable equipment available?		✓			
25. Suitable reserve equipment available?		✓			
26. Suitable equipment safety devices?		✓			

N/A=Not Applicable Comp=Compliance Noncomp=Noncompliance Unkn=Unknown
Inad=Inadequate

COMMENTS: 8. The working face is too wide
weak. The side slopes go
to the large face and steep

Signed: _____

DER Representative

27540

FACILITY FILE: VOLUSIA COUNTY
TOMOKA FARMS LANDFILL
Permitt:

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

CENTRAL FLORIDA DISTRICT

3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

ALEX ALEXANDER
DISTRICT MANAGER

October 23, 1986

Briley, Wild and Associates
P.O. Box 607
Ormond Beach, FL 32074

OCF-SW-86-0314

Attn: Lee Powell, P.E.

Volusia County - SW
Tomoka Farms Road Landfill
Application No. SO64-121811

Dear Mr. Powell:

3064C0071 W

The department has received the additional information for the referenced operation permit renewal on October 3, 1986. Upon review of the information, it was determined that the following is required to complete the application (Rule 17-4.055, Florida Administrative Code, F.A.C.)

1. Please provide the construction plans (illustrations) of the proposed monitoring wells which is a part of the groundwater monitoring plan. (Rule 17-7.050(3)(e), F.A.C.)
2. To better evaluate any potential leachate migration and composition, the department requires initial testing of all monitoring wells for primary and secondary drinking water standards and minimum criteria. The analyses for the minimum criteria are the pesticides and PCB's (EPA Method 608), base/neutrals, acids and pesticides (EPA Method 601) and purgeables (EPA Method 602). The methods can be found in the EPA Test Methods - Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater - EPA 600/4-82-057, July 1982. The department requires these analyses during our review process because old wells which are to be replaced as part of the groundwater monitoring plan have not been sampled and tested quarterly and the nature and design of the existing landfill operations. The county will not be required to perform a second analyses as part of the renewed operation permit. Also, the department must be notified 15 days prior to the installation and sampling of any monitoring well.

Tomoka Farms Road Landfill
OCF-SW-86-0314
October 23, 1986
Page Two

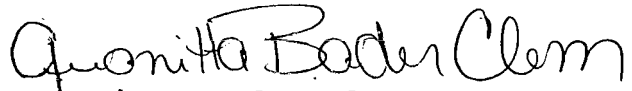
8-12-86 7-7-86

Please note that the operating permit No. SO64-34352, restricted operation to the present 160 acres and the plans which are a part of said permit show a final elevation of 75 feet M.S.L. Therefore, highrising above that elevation (to elevation 108 feet M.S.L.) is new landfill construction which must conform to Rules 17-7.050 and 17-7.060, F.A.C. and a construction permit must be issued prior to that construction. The plans submitted as part of the supporting documents for permit renewal must be revised to show final elevation of 75 feet M.S.L. in order for the operating permit renewal to be issued.

The review of the project will continue upon receipt of the above information pursuant to Section 120.60, Florida Statutes. The department may deny a permit application if the applicant, after receiving timely notice fails to correct errors, omissions, or supply additional information within a reasonable period of time.

Your cooperation will be appreciated. Please give me a call if you have any questions.

Sincerely,


Juanitta Bader Clem
Solid Waste Section

JBC/sy

cc: Duke Woodson, SJRWMD
Dave Twedell, Groundwater Section
John Reese, DER, Tallahassee

27540

J. Reese
FACILITY FILE: Volusia County

TOMOKA FARMS ROAD

LANDFILL

Permit:

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT

3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

ALEX ALEXANDER
DISTRICT MANAGER

August 28, 1986

Briley, Wild and Associates
P.O. Box 607
Ormond Beach, FL 32074

OSJ-SW-86-0257

Attn: Lee Powell, P.E.

Volusia County - SW
Tomoka Farms Road Landfill
Application No. SO64-121811



EA, SOLID WASTE

Dear Mr. Powell:

The department has received the additional information for operations permit renewal for the referenced project on August 6, 1986. Upon review of the information, it was determined that the following is required to complete the application (Rule 17-4.055, Florida Administrative Code, F.A.C.)

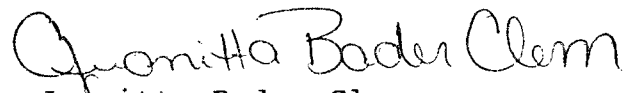
1. The groundwater monitoring plan (I.D. Number 64C00071) issued March 7, 1984, expired on July 7, 1986 which is the same date as the operating permit expiration. According to Rule 17-7.050(3)(e), F.A.C., landfill design plans must include a groundwater monitoring plan. Therefore, the groundwater monitoring plan renewal will be included as part of this permit renewal. This plan approval requires replacement of wells MO-5 and MO-6 in approximately the same location and at the same depth as the original wells. Please provide plans for their replacement.
2. The landfill is designed to allow leachate, trapped by the liner and impermeable clay layer, to move laterally and be collected in the deep ditches surrounding the landfill. Therefore, the stormwater and other surface water since it comes into contact with the leachate is considered leachate and must be treated to meet applicable standards of Rules 17-3 and 17-4, F.A.C., at the point of discharge. The monitoring of the point of discharge must be included with the groundwater monitoring plan, so please provide this monitoring in the plan.


Tomoka Farms Road Landfill
OSJ-SW-86-0257
August 28, 1986
Page Two

The review of the project will continue upon receipt of the above information pursuant to Section 120.60, Florida Statutes. The department may deny a permit application if the applicant, after receiving timely notice fails to correct errors, omissions, or supply additional information within a reasonable period of time.

Your cooperation will be appreciated. Please give me a call if you have any questions.

Sincerely,


Juanitta Bader Clem
Solid Waste Section


JBC/sy
QMC

cc: James L. Griffin, County of Volusia
John Reese, DER Tallahassee
John Armstrong, DER Orlando
Duke Woodson, SJRWMD

27540

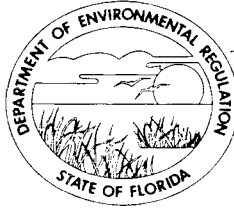
FILE: 9.64 VOLUSIA CO.
TOMOKA/ LF

GW

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT

3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767

GROUNDWATER SEC

BOB GRAHAM
GOVERNORVICTORIA J. TSCHINKEL
SECRETARYMAR 19 1984 ALEXANDER, P.E.
ALEX SENKEVICH
DISTRICT MANAGER

March 7, 1984

Thomas M. McClelland
Director of Public Works
Volusia County
136 North Florida Avenue
DeLand, Florida 32720

OSJ-SW-84-0047

I. D. Number: 64C00071
Ref. Permit Number: S064-34352
G.W.M.P. Issued: 3-7-84
Expiration Date: 7-7-86
County: Volusia
Lat. 29°07'43"/Long. 81°05'35"
Section: 3,4,9,10, Township 16S
Range: 32E
Project: Groundwater Monitoring
Tomoka Landfill Class IRECEIVED
MAR 12 1984
SOLID WASTE
SUBSECTION

Dear Mr. McClelland:

Your Groundwater Monitoring Plan has been approved subject to the following specific conditions:

1. The Sampling Schedule and Analytical Parameters form covering the period from March 1984 through July 1986 is attached.
2. A copy of the analysis shall be presented to the department within 10 days after the receipt of the laboratory analyses.
3. In the event there are indications of contamination, more frequent sampling shall be performed, as specified by the department.
4. Monthly water table measurements and loggings of all monitoring wells shall be recorded, and a copy of these records shall be sent to the department on January and August of each year.
5. Each well analysis shall be recorded on the appropriate DER Form 17-1.216(2). (Copy forms attached.)

APR 9 1984

EA, SOLID WASTE

Thomas M. McClelland
OSJ-SW-84-0047
Page Two
March 7, 1984

6. A new operating permit application together with a monitoring plan shall be submitted 60 days prior to the expiration date of this monitoring plan and the expiration of the landfill permit, in accordance with Rule 17-4.09 Florida Administrative Code.
7. In the event that there is an indication of contamination at any sampling point, the department must be notified within 5 days and the sampling point must be resampled within 10 days. Both results shall be forwarded to the department together with a report of actions that may be needed to mitigate the problem.
8. After one year of sampling, the department may be requested to modify the sampling parameters and schedule.

Sincerely,

A. T. Sawicki

A. T. Sawicki, P.E.
Hazardous/Solid Waste
Engineering

ATS:jmc

cc: J. Reese, DER/SW Tallahassee
Jim Griffin, Vol. Co. SW Supervisor
Berry Appleby, Vol.Co. Environmental
Services

SAMPLING SCHEDULE AND ANALYTICAL PARAMETERS

S064-34352

ID # 64C00071 PERMIT # _____ SITE NAME Tomoka Landfill COUNTY Volusia

WATER

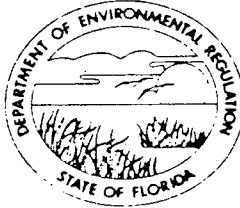
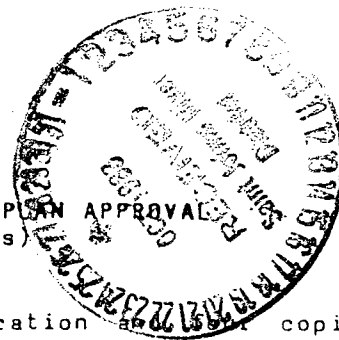
CLASS I NUMBER OF WELLS 7 NUMBER, SURFACE DISCH. POINTS 4

SAMPLING MONTHS March (3) / June (6) / Sept. (9) / Dec. (12)

Sampling schedule from March 1984 through July 1986

SAMPLING POINTS		SAMPLING SCHEDULE		ANALYTICAL PARAMETERS		
Well ID	SURFACE DISCH. POINTS	QUARTERLY	SEMI-ANNUALLY	PRIMARY	SECONDARY	PURGAHLES VOC. PCB PESTICIDE SCAM
U & C FA1 64A71M13		March (3) Sept. (9) June (6) Dec. (12)		Indicators Indicators X Indicators		X Sept.
D & C FA2 64A71M14		March (3) June (6) Sept. (9) Dec. (12)		Indicators Indicators X Indicators		X Sept.
C - B2 64A71M01			June (6) Dec. (12)	Indicator Indicator		
C & I B3 64A71M15			June (6) Sept. (9) Dec. (12)	Indicator X Indicator		Dec. 84, 86
C & I B4 64A71M08		March (3) June (6) Sept. (9) Dec. (12)		Indicators X Indicators X	X X	June 85
C B5 64A71M02		March (3) June (6) Sept. (9) Dec. (12)		Indicators X Indicators Indicators	X	Sept. 86
C B6 64A71M11		March (3) June (6) Sept. (9) Dec. (12)		Indicator Indicator X Indicator		Sept. 84
SB2 Pond A 64A71S02	<i>Pond 1 Overflow</i>	March (3) Sept. (9)	Per DER Permit IO64-39230 Item #2			
S04 Weir 64A71S04		Per DER Permit IO64-39230 Item #2				Dec. 84, 85, 86
Canal Pump 64A71S03		Per DER Permit IO64-39230 Item #2				
Canal Swamp 64A71S08		March (3) June (6) Sept. (9) Dec. (12)	Per Item #2 After Pumping NO to be included	of Permit IO64-39230		If contamination is indicated on the Weir samples of Dec. 84, 85, 86, then canal swamp shall be sampled w 30 days.

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER
DISTRICT3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803BOB GRAHAM
GOVERNORVICTORIA J. TSCHINKEL
SECRETARYALEX SENKEVICH
DISTRICT MANAGERAPPLICATION FOR MONITORING PLAN APPROVAL
(Existing Sources)

INSTRUCTIONS: Submit four copies of this application and four copies of supporting information such as laboratory reports, maps and other documents to the appropriate District Office.

PART I - General Information

In compliance with Florida Administrative Code Rule 17-4.245(6)(c)2., the undersigned installation owner applies for approval from the Department for the monitoring criteria on the following property owned by:

<u>County of Volusia</u>				<u>S064-34352</u>
<u>Corporation or Owner's Name</u>				<u>Permit No.</u>
<u>Volusia County SW Tomoka Landfill (Tomoka Farms Road Landfill)</u>				
<u>Installation Name</u>				<u>SIC Code</u>
<u>136 North Florida Avenue</u>	<u>DeLand, Florida</u>	<u>32720</u>	<u>Volusia</u>	<u>29.08, 81.05, 30W</u>
<u>Street Address</u>	<u>City</u>	<u>Zip</u>	<u>County</u>	<u>Latitude Longitude</u>
<u>1/4 1/4 1/4 of 3, 4, 9 & 10 16S</u>				<u>32E</u>
				<u>Section, Township, Range</u>

FOR SECTION: SEE LEGAL DESCRIPTION ATTACHED

OWNER OR AUTHORIZED REPRESENTATIVE (If representative, attach letter of authorization.)

County of Volusia, Director of Public Works, Thomas McClelland
Name and Official Title (Print or Type)

<u>136 North Florida Avenue</u>	<u>DeLand</u>	<u>Florida 32720</u>	<u>904/736-2700</u>
<u>Street</u>	<u>City</u>	<u>State Zip</u>	<u>Telephone Number</u>

Signature: Thomas M. McClelland
Thomas McClelland, Director of Public Works

Date: 21 Oct 83

PART II - Content of Monitoring Plan

Pursuant to Rule 17-4.245(6)(d), the plan shall contain findings, recommendations and plans for ground water monitoring derived from site specific information. For the type of information to be considered in the development and assessment of the plan, see page two of this form. In any case, the following items must be included:

1. Location(s) of proposed well(s) to sample natural unaffected background water quality and the intermediate and compliance well(s) in the down gradient direction.
2. Construction details of the monitor well(s), including type of casing material, diameter of casing, depth of casing and location of screens.
3. A water sampling and chemical analysis procedure which can determine the natural unaffected background quality of the ground water, and the quality of the receiving ground water in the downgradient intermediate and compliance wells.

ST. JOHNS RIVER
DISTRICT

ALEX SENKEVICH
DISTRICT MANAGER

GMS # 306400071

DER PERMIT # S064-34352

Thomas H. McCalland

21 OCT 83

Page 1 of 2



5000 U. S. HIGHWAY #1 NORTH P. O. BOX 607 ORMOND BEACH, FLORIDA

32074

(904) 672-5668

Proposal for: Volusia County (Environmental Control Division)
Re: County Landfill Sampling Requirements

EnviroLab will provide analytical services on samples delivered to the laboratory as follows:

I. June, 1983

A. Subcontract GC/MS Analyses - 5 samples at \$600 = \$3,000

B. Chemical Analyses - 12 samples at \$50 = \$600 ⁴⁰⁰

1. Total Organic Carbon at \$15
2. Biological Oxygen Demand at \$15
3. Total Kjeldahl Nitrogen at \$20

C. Mercury Analysis - 5 samples at \$35 = \$175

D. PCB Analysis - 2 samples at \$75 = \$150

II. September, 1983

A. Organic Analysis Not Required

B. Chemical Analyses - Same as June = \$600 ⁴⁰⁰

C. Mercury Analysis Not Required

D. PCB Analysis Not Required

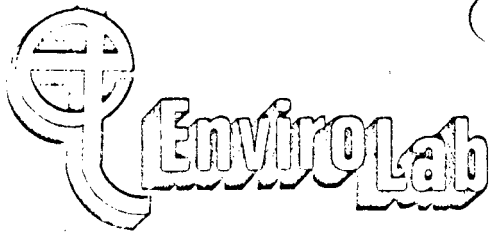
III. December, 1983

A. Pesticide/Herbicide Scan - 5 samples at \$85 = \$425

B. Chemical Analyses - Same as June = \$600 ⁴⁰⁰

C. Mercury Analysis - Same as June = \$175

D. PCB Analysis Not Required



5000 U. S. HIGHWAY #1 NORTH P. O. BOX 607 ORMOND BEACH, FLORIDA 32074 (904) 672-5668

Proposal for Volusia County (Environmental Control Division)
Page 2

IV. March, 1984

- A. Organic Analyses Not Required
- B. Chemical Analyses - Same as June - \$600 ⁴⁰⁰
- C. Mercury Analysis Not Required
- D. PCB Analysis Not Required

The yearly contract from June, 1983 to March, 1984, for the above analyses totals \$6,325.

LEGAL DESCRIPTION FOR TOMOKA FARMS ROAD LANDFILL:

N $\frac{1}{2}$ of Section 10; and all of the NE $\frac{1}{4}$ of Section 9; and that part of the NW $\frac{1}{4}$ of said Section 9, lying East of the Florida Power and Light Company power line right of way; and that part of the S $\frac{1}{2}$ of Section 4, lying East of the said Florida Power and Light Company power line right of way; and that part of Section 3, lying West of a straight line drawn between the Southeast corner of the SW $\frac{1}{4}$ of said Section 3 (being also the Northwest corner of the NE $\frac{1}{4}$ of Section 10) and running Northwesterly to the point of intersection of the West line of said Section 3 with the Southeasterly right of way line of Interstate Highway #4 (S.R. 400); and the South 200 feet of the NW $\frac{1}{4}$ of Section 11, lying West of the centerline of Tomoka Farms Road as now used.

August 19, 1983