Special Publication; SJ 86-SP1

ANNUAL REPORT ON UNCONTROLLED FREE-FLOWING ARTESIAN WELLS

1985

Free-Flowing Well Plugging Program

Ву

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Water Resources Department

St. Johns River Water Management District

Palatka, Florida

December 1985

Project Number 20 018 02

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INTRODUCTION

Uncontrolled or improperly constructed artesian wells have a major effect on the quality and quantity of Florida's ground water resources. Thousands of wells have been drilled that would not meet today's well construction standards and many have had to be abandoned because of problems associated with these poor construction techniques. Millions of gallons a day are allowed to flow out of wells at the surface or leak internally into the shallow aquifers because of corroded or too short casing. This can reduce the potentiometric surface and therefore increase the chance of mineralized water contaminating the potable water supply.

Legislation has been enacted to solve the problems of uncontrolled free-flowing wells. The "Water Quality Act of 1983" directed the water management districts to prepare an initial inventory of the wells in their respective jurisdictions. This legislation also requires that a current inventory and work plan for plugging or controlling these wells be sent to the Department of Environmental Regulation by January 1st of each year until 1992.

The St. Johns River Water Management District (SJRWMD) currently has 401 wells on its inventory. This number has been increasing as public awareness of the problem has increased. Local governments and other agencies are also helping through cost sharing and personnel assistance.

Reports have been written documenting previous work in inventorying wells and specific plugging projects (Edwards 1983,

Edwards 1984, Healy 1978, Munch 1978, Timmons 1982). Information has been distributed to the public by means of flyers (Appendix B) and radio and newspaper coverage. These efforts have resulted in an accurate inventory for planning purposes and 71 wells plugged or reconstructed.

PURPOSE AND SCOPE

This document was prepared for presentation of inventory data and technical information to comply with the requirements of Part IV of the "Water Quality Act of 1983". This document is the third annual report to the Department of Environmental Regulation of the free-flowing well inventory and the District's work plan for controlling or plugging inventoried wells. Appendix A shows the format provided by the Department of Environmental Regulation to be used for this report. This report was also prepared for public distribution to show the District's progress in pursuing the problems resulting from uncontrolled free-flowing wells and to provide effective planning for future work in this field.

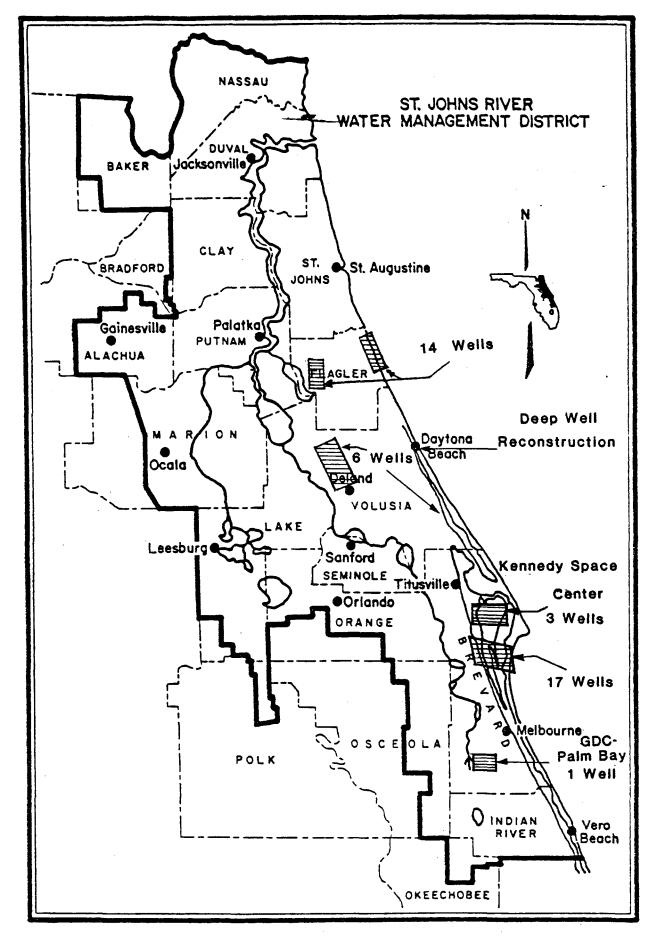


Figure 1. Location of 1984-1985 Free Flowing Well Plugging Projects

CURRENT STATUS 1985 PROJECTS

In 1985 the plugging efforts were concentrated in Brevard, Flagler and Volusia counties (Figure 1). These are areas where salt water intrusion and inter-aquifer contamination could have a serious effect on a limited and much needed potable water supply. Forty-two wells were plugged or reconstructed during the year thereby preventing approximately 16 million gallons per day of artesian water from wastefully flowing.

Specific projects in Brevard County included continuation of projects from earlier efforts. Three wells were plugged and one was reconstructed into an observation well at the Kennedy Space Center on Merritt Island. One well was plugged in the Palm Bay area as well as several improperly constructed mosquito control wells.

The District and the Brevard County Board of County

Commissioners are renewing a cooperative agreement (Appendix D)

that has been invaluable in accomplishing the goals of the

program. Cost share funding and personnel assistance through the

County Water Resources Department has done much to extend the

resources and provide more effective planning.

In Volusia County five wells were plugged and one deep well was reconstructed into an observation well. The deep well was an abandoned 879 ft. municipal supply well owned by the City of Daytona Beach. This was reconstructed through a cost sharing agreement with the City (Appendix D). This well was a prime example of problems that can result from internal flow caused by

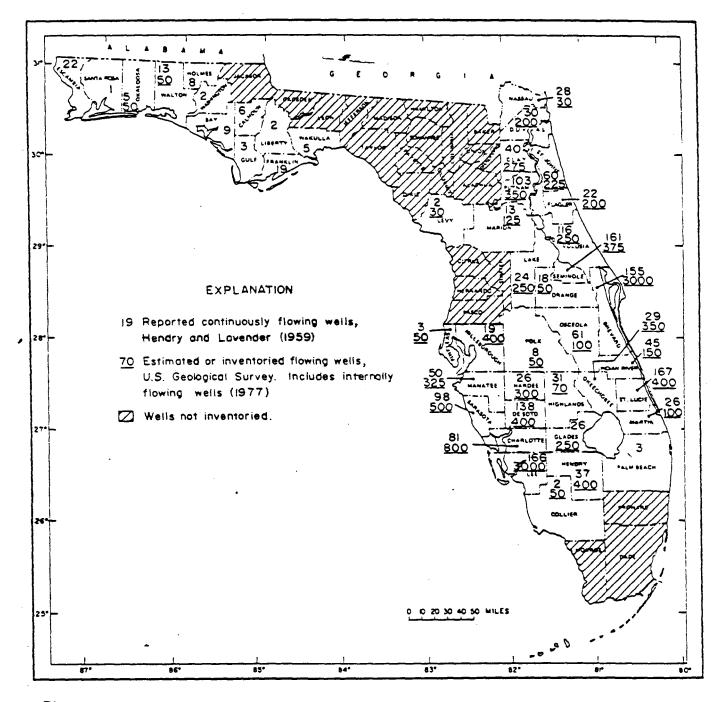
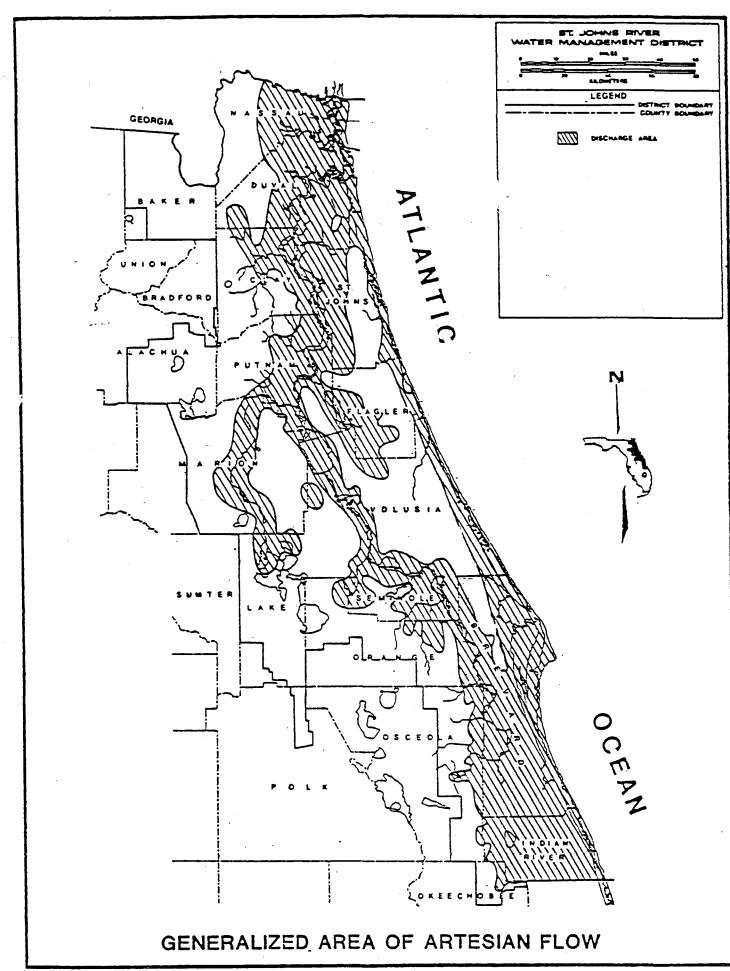


Figure 2. Number of Free Flowing Wells in Each County (Healy 1978)

poor construction techniques. Though the well did not flow at the surface, water was entering the open borehole at 430 ft. to 480 ft. and flowing up the well bore at approximately 290 GPM. This water was highly saline (14,000 ppm chlorides) and when it entered the formations in the upper zone of the well, local irrigation wells were affected. This well was backfilled and recased to prevent this flow and will be periodically monitored to observe the effects of the reconstruction.

In Flagler County, 14 wells were plugged. These two to eight inch diameter wells were abandoned residential or irrigation wells.

In Seminole County, the Agricultural Stabilization and Conservation Service (ASCS) and the Soil Conservation Service (SCS) are pursuing a program with the District similar to the cooperative agreement with Brevard County. The current inventory of three wells is much lower than the 375 (Healy 1978) that are estimated to exist (Figure 2). The ASCS and County personnel have knowledge of abandoned artesian wells that have not been formally inventoried. The District's enforcement personnel are also locating wells and collecting data. The initial plan is for County, ASCS and SCS personnel to be involved in inventory and obtain owners permission, whereas the District would do the actual plugging as funding becomes available. Cost sharing with these agencies may also be available.



WELL PLUGGING PROGRAM

Inventory

Estimates have been made (Healy 1978) that indicate that there are over 5,000 uncontrolled free-flowing wells within the District's boundaries (Figure 2). Brevard County accounts for 3,000 of these. The inventory in 1956 and 1957 done by the Florida Geological Survey (Hendry and Lavender 1959) shows 715 wells reported within the District. The District's initial inventory in 1980-1982 has included this information as the current status of each well is determined. The current inventory has also increased through the help of citizen reports, cooperation with local governmental agencies and routine field work.

The inventory of free-flowing wells is part of the data base on the District's computer system. There are currently 401 wells listed in this file. Information concerning location, construction details, water quality, owners name and general comments are recorded (Appendix C). A file is also kept that includes a photograph of the wells and a detailed map to the site.

Extensive inventory work is being planned in Seminole County in cooperation with the ASCS, SCS and Seminole County. It is expected that up to two hundred wells will be added to the inventory by this effort. This effort may increase the estimate of free-flowing wells to about 800 within the District.

In Brevard County the inventory has been increased by information supplied by the City of Melbourne and Patrick Air Force

Base on the barrier island. These wells have been abandoned since high chlorides made the water unsuitable for irrigation or

public supply. Patrick Air Force Base has plugged some of their wells already and others are being scheduled through the District's program. All of these wells are short cased and too small diameter to reconstruct into a useful well. Various options for either plugging or reconstructing the wells in the City of Melbourne are being considered.

Priority

A priority system has been established in the District's well plugging program to rank groups of wells according to the impact of the wells on the water resources of the area. The criteria considered when grouping wells include; the quality of water being discharged or involved in interaquifer flow, the quantity of the water, the well construction, and the physical conditions of the well. The District has identified and ranked eight groups which would be indicative of these criteria. When specific hydrogeologic information is evaluated for a particular well or group of wells, the wells are prioritized accordingly. The priority groups established are as follows: #1 is the highest priority, #8 is the lowest priority.

- Good quality water in limited supply with no recharge (an isolated lense of fresh water).
- 2. Good quality water in large supply with no recharge.
- 3. Good quality water in limited supply with recharge.
- 4. Poor quality water contaminating fresh, shallow aquifers (areas dependent on shallow aquifers for potable water supply will have higher priority).

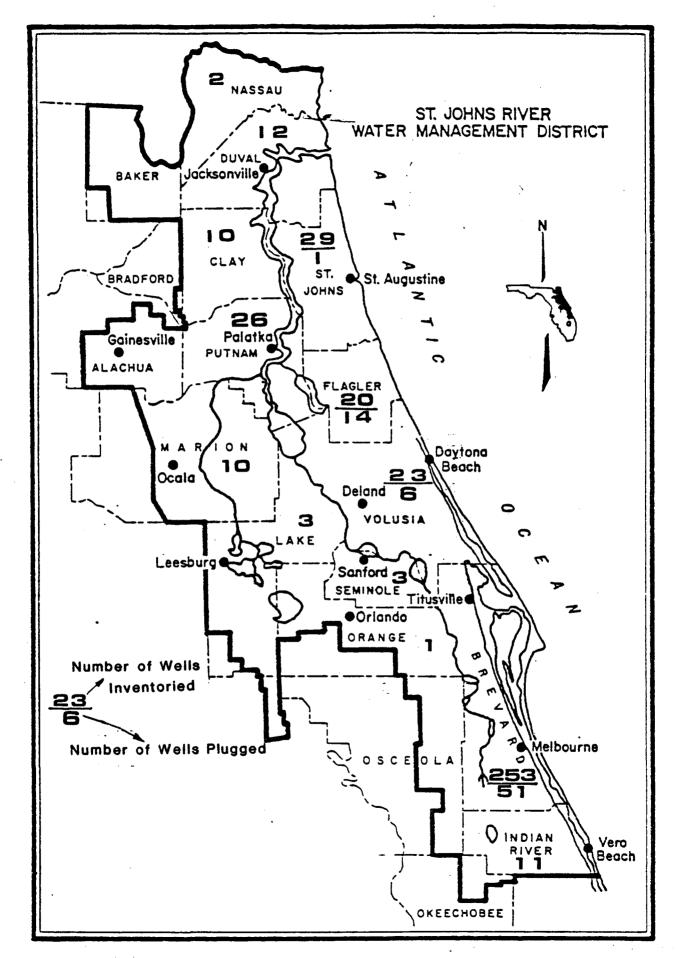


Figure 4. Map Showing the Distribution of Wells in Each County

- 5. Poor quality water directly contaminating fresh surface water bodies (areas that exhibit rapidly increasing chloride levels will have higher priority).
- 6. Good quality water in large supply with recharge.
- 7. Poor quality water contaminating shallow aquifers exhibiting high chloride levels.
- 8. Poor quality water directly contaminating brackish or salt water surface water bodies.

Plugging Methodology

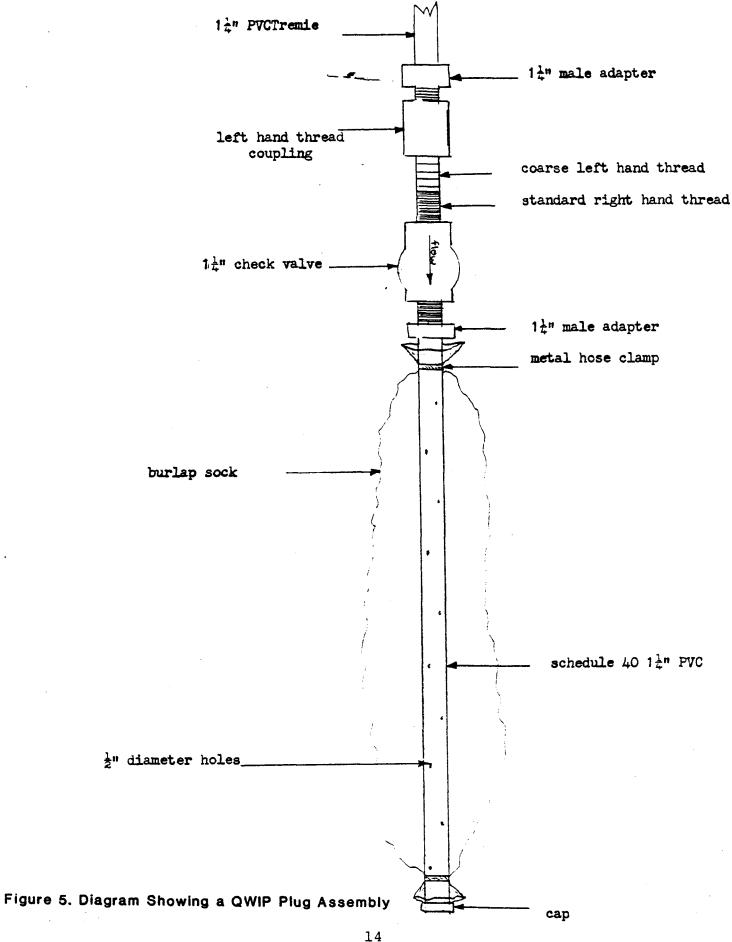
After a well has been inventoried and prioritized, plans can be made for plugging it. The owner of the property is contacted to obtain permission for the project and to discuss legal responsibilities. Other groups that may be affected (government agencies, special interest groups) are also contacted to get their input. The various legal, technical and financial aspects of the particular project are discussed with these people to determine the best course of action. Options are considered based on available financing, the goals of the program and opposition to the project. Contract documents, cooperative agreements and permitting requirements are taken care of as needed (Appendix D).

Specifications for plugging the well are then developed based on current laws (SJRWMD Rules, Chapter 40C-3, Revised Edition) and the hydrogeologic setting of the well. This information is used to determine what type of plug will be necessary. The criteria that are considered include the following:

- The location of existing aquifers and confining units must be known so plugging will prevent interaquifer contamination or loss of head pressure.
- Original construction details of the well including cased depth and total depth should be determined.
- 3. Present condition of the well is determined from geophysical logs if possible or by running drill rod or tremie pipe to the bottom of the well.

From the above information the type of or combination of the following plugging methods is generally used:

- 1. Valves or Caps If the well does not present any water quality problems or depletion of one aquifer to another through interaquifer flow, the most efficient way to preserve the water resource is to install a workable valve or cap.
- 2. Backfilling This is by far the best method to insure that a well is properly sealed to restore the site to its original hydrogeologic setting. The method involves setting drill rod or tremie pipe to about 20 ft. from the bottom of the well and pumping a cement slurry through it so the well can be filled from the bottom to the land surface. This can be done in one large batch or in stages. Generally by pumping several smaller batches and allowing time for the cement to set, problems can be avoided in wasting cement. If it is found that the well is taking much more cement than calculated, it may be necessary to install a plug or use



- gravel to bridge certain zones. Once the plug is installed, the well can be backfilled to the surface.
- 3. Plugs There are many commercial plugs available to seal a well or hold cement in place until it sets. The District has devised a form of cement plug (termed QWIP from Quality of Water Improvement Program) to bridge thirsty formations or set casings (see Figure 5). This plug is generally fabricated on site and attaches to 1 1/4 inch PVC tremie pipe. A coarse left hand threaded coupling and nipple is used to provide a positive disconnect system so the tremie pipe can be removed from the plug. A check valve is placed on the tremie to prevent the slurry from being forced out of the burlap "sock" by natural water pressure. A calculated volume of slurry is pumped into the sock and allowed to set before backfilling can be resumed.

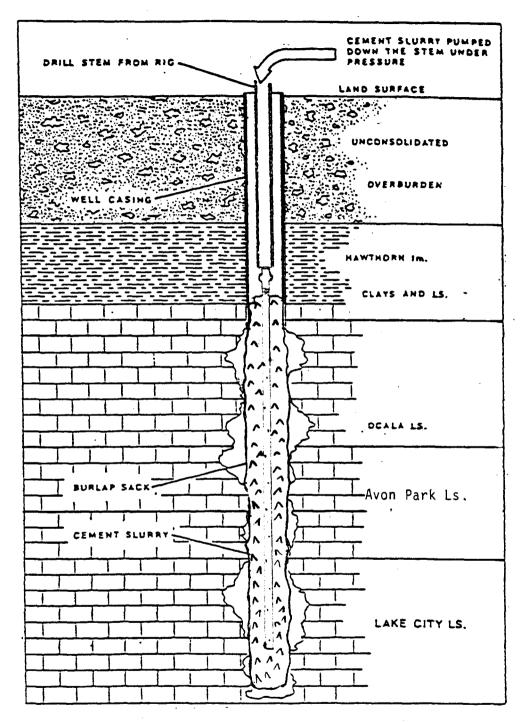


Figure 6. Generalized Cross Section Showing the Placement of the Plug within the Aquifer.

PROPOSED SCHEDULING

The goal of the free-flowing well plugging program is to have all of the wells inventoried and plugged by 1992. The inventory in 1983 (Edwards 1984) listed 293 wells that would qualify for plugging under this program. The 1984 inventory (Edwards 1985) showed an increase of 64 wells and the current inventory has 401 wells listed.

During the first five years of this program 71 wells were plugged or reconstructed. Each year has shown an increase in the number of wells plugged per year. This is due in part to the experience gained in plugging methodology as well as it being easier to obtain permission to do this work as the public becomes more aware of the problems caused by these wells.

Scheduling of wells to plug will be directed as funding is available to plug the total amount of the estimated free-flowing wells in the remaining six years. If the total number of wells that have been plugged (71) are subtracted from the number of wells estimated to be in the District (800) then 122 wells will have to be plugged per year to accomplish the program goals within the original timeframe.

Wells are scheduled based on the priority list as well as availability of funding. Brevard County not only has the highest number of inventoried wells but their cost sharing program has provided a means to use District funds more efficiently.

The 1985-1986 schedule of wells to plug includes approximately 35-40 wells located in Brevard County. These are located at Patrick Air Force Base, the Kennedy Space Center, the

City of Melbourne and various wells in the south part of Brevard County. An additional 10-15 wells are being scheduled in St.

Johns and Putnam counties that should help the agricultural concern. Some wells on private property will be plugged in these counties as permissions are obtained.

COSTS

Tables 1, 2, 3 and 4 are provided to show actual costs for plugging and program support as well as projected costs. The costs that were incurred in fiscal year 1984-1985 exceeded the SJRWMD budget but funds were available that were encumbered from previous years or matched through cooperative agreements. Based on the 1984-1985 average cost per well for actual plugging, the 1985-1986 SJRWMD budget has funds to plug approximately 45 wells. This is far short of the number of wells that need to be plugged per year to meet the program goals.

TABLE 1. ACTUAL PLUGGING COSTS 1984-1985

A. Contractual Services

Brevard	County		\$25,346
Flagler	& Volusia	Counties	16.220
•			\$42,336

B. Cement_and_Related_Products

Brevard	C	ounty		\$	8,315
Flagler	&	Volusia	Counties	_	3.570
-					11,885

Total Costs (A + B) \$54,221 Average Cost per well (42 wells) \$ 1,291

TABLE 2. ACTUAL COSTS TO SJRWMD FOR PROGRAM SUPPORT

A.	1984-1985_program_support		
	Salaries, Travel, Insurance		\$27,676
	General Supplies & Equipment		2,508
		Total	\$30,184
	Average Cost per Well		\$ 718

B. Total Costs to Date

Fiscal	Year	1980/1981			\$12,726
Fiscal	Year	1981/1982			47,338
Fiscal	Year	1982/1983			36,440
Fiscal	Year	1983/1984			43,645
Fiscal	Year	1984/1985			_84,405
		Total	to	Date	\$224,554

C. Costs_to_District

Total to Date 12% Administrative Costs	\$224,554 26,946 \$251,500
Less Total Contractual Services to Date	- 100,283
	\$150,517
Average Cost Per Year (5 Years)	\$ 30,104

TABLE 3. ESTIMATED AVERAGE COST TO SJRWMD PER YEAR UNTIL 1992 FOR PROGRAM SUPPORT

Actual Average Cost (from Table 2)	\$30,104
Projected Average cost Per Year Until 1992*	
Fiscal Year 1985/1986 Fiscal Year 1986/1987 Fiscal Year 1987/1988 Fiscal Year 1988/1989 Fiscal Year 1989/1990 Fiscal Year 1990/1991 Fiscal Year 1991/1992	\$30,104 \$31,910 \$33,825 \$35,855 \$38,006 \$40,286 \$42,703

^{*} Based on 6% annual inflation rate.

TABLE 4. PROJECTED COSTS FOR ACTUAL PLUGGING

A. Costs Per Year to Plug All Wells By 1992.

Estimated Number of Wells to Plug	80 0 -
Number of Wells to Plug Per Year	122
Average Cost Per Well	\$ 1,291
Average Cost Per Year	\$157,502

B. Total Costs to Plug All Wells By 1992*

Fiscal Year 1985/1986		\$157,502
Fiscal Year <u>1986/1987</u>	•	\$166,952
Fiscal Year 1987/198 8		\$176,969
Fiscal Year 1988/1989		\$187,587
Fiscal Year 1989/1990		\$198,842
Fiscal Year 1990/1991		\$210,773
Fiscal Year 1991/199 2		\$223,419
		\$1,322,045

^{*} Based on 6% inflation/rate.

CONCLUSION AND SUMMARY

According to United States Geological Survey References (Healy 1978), there are approximately 1,000 artesian flowing wells within the St. Johns River Water Management District. Since the USGS's inventories and estimates, many of the wells have been abandoned or brought under control (as far as surface discharge) for future use by the owners, because of the concern developed over the years. When not abandoned properly, free-flowing wells may continue to have a grave effect on the water resources of the area due to interaquifer contamination. Wells that are capped and not reported become increasingly difficult or impossible to locate and properly abandon. The District will continue to work with private well owners on request to evaluate suspect wells for remedial action.

The inventory of 401 free-flowing wells in the St. Johns River Water Management District is estimated to be 50 percent of the actual number of wells existing that would meet the program's responsibilities and objectives. The District's Well Plugging Program is continuing an extensive search for these wells through increasing efforts in public awareness and cooperation. To date the District has plugged 71 wells with a total discharge of approximately 25 million gallons per day. The District will increase the number of wells to be plugged as each year's budget allows. Evaluation of the Program's priority criteria will be followed to insure effective progress in protecting the water resource from problems resulting from uncontrolled free-flowing wells.

REFERENCES

- Edwards, S. Jr., 1983, Technical Publication SJ 84-3, Report on Uncontrolled Free-Flowing Artesian Wells Free-Flowing Well Plugging Program.
- Edwards, S. Jr., 1985, Annual Report on Uncontrolled Free-Flowing Artesian Wells Free Flowing Well Plugging Program, St. Johns River Water Management District.
- Healy, H. G., 1978, Appraisal of uncontrolled flowing artesian wells in Florida, U. S. Geological Survey WRI 78-95, 26 pages.
- Hendry, C. W. Jr., and Lavender, J. A. 1959, Final Report on an Inventory of Flowing Artesian Wells in Florida: Florida Geological Survey Information Circular 21, 30 p.
- Munch, D. A., 1978, Improvement of water quality through a cooperative well plugging program, St. Johns River Water Management District.
- Timmons, Wilson R. Jr., 1982 Appraisal of Uncontrolled Artesian Wells in Brevard County, Florida; Brevard County Water Resources Department, 63 p.
- "Water Quality Act of 1983"

APPENDIX A

OUTLINE PROVIDED BY DEPARTMENT OF ENVIRONMENTAL REGULATION

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING 2600 BLAIR STONE ROAD DA MICAHASSEE, FLORIDA 32301-8241



BOB GRAHAM GOVERNOR

VICTORIA J. TSCHINKEL SECRETARY

Mr. Doug Munch St. Johns River Water Management District Post Office Box 1429 Palatka, Florida 32077

Artesian Well Plugging Workplan

3- 33. Dear Mr. Munch:

Part IV of the Water Quality Assurance Act directs the five water management districts to prepare inventories and workplans outlining methods and costs of plugging all abandoned artesian wells in their district by January 1, 1992. The water management districts shall submit an initial workplan to the Secretary of DER by January 1, 1984.

Enclosed is a draft format for the workplan. Please review and let me know if you have any serious problems with the contents. The level of detail and length of each water management district workplan will be proportional to the number of wells and the existence of an active well plugging program. In those districts without a district-wide inventory, cost estimates may have to be given for both known and estimated number of wells.

Another topic we need to discuss is the use of the original inventory. I have the original well schedules (in pencil) complete with photographs, wellhead diagrams and hand drawn maps from which Information Circular No. 21 was prepared. These statewide records have remained intact since 1958, so I am reluctant to start mailing originals all over the state.

A meeting in Tallahassee with all water management districts can be arranged, if you feel there is a need. Suggested dates are November 8, 9, 15, or 16. Please let me know if you would prefer to meet or discuss any problems by telephone.

Sincerely,

Leslie Bell

Environmental Supervisor Groundwater Section

LB/cs Enclosures

cc: Rodney DeHan Greg Parker Howard Rhodes John Wehle Ed Mossier/SFWMD

A-1

Format for Artesian Well Plugging Workplan

I.	Int	roduction	DOCUMENT SUBHEADINGS	Page
		Brief assessment of existing problem Brief summary of any existing program	'INTRODUCTION''CONCLUSION AND SUMMARY'	
II.	Inv	entory	, y	
	Α.	Results of 1983 Inventory presented in table 1 and Table 3 from the Florida Geo Circular No. 21 (examples attached) can	logical Survey Information	
	В.	Description of methodology used in obtaincluding types of sources contacted, preverification methods		
	c.	Location and Owner of each abandoned well	1	
		 Present by county, alphabetically by If inventory is already on data base submitted 		
	D.	Proposed Methodology for Updating Invent	ory 'Inventory, CONCLUSION AND SUMMARY'	
		1. Location techniques		
		2. Field verification		
		3. Public notification techniques		
III.	Wel	l Plugging Priority Schedule	•	
	A.	Criteria to be used to develop schedule	'Priority'	
		1. Condition of casing		
		2. Presence of operable valve		
		3. Water quality in well and receiving	-	
		4. Surface or subsurface flow from well	•	
		5. Diameter of well and flow volume6. Surficial aquifer use in proximity	o artesian well	
	в.	Proposed Schedule	'PROPOSED SCHEDULING'	
		l. Individual wells may be listed for with smaller inventories. Types of	wells with highest priority	

Format for Artesian Well Plugging Workplan Page Two

DOCUMENT SUBHEADINGS Plugging Methodology IV. Page Description of existing procedure, including all legal paperwork 'Plugging Methodology'..... and contract processing 'Types of Plugs'..... Types of plugs commonly used В. C. Description of any inspection or verification 'COSTS'..... Timetable for plugging completion, which incorporates priority 'PROPOSED SCHEDULING'..... schedule developed in III V. Costs A. Costs should be presented in two categories - water management district costs and actual plugging costs 'COSTS'...... Estimates for water management district costs should be given in 'per well' units, and should include: 'TABLE 2, TABLE 3'..... 1. Staff time for locating wells 2. Staff time for well assessment and placement in priority schedule 3. Staff time for resolving any legal difficulties 4. Staff time for preparing and awarding plugging contract Staff time for inspection, updating of inventory 6. Total estimated cost 1. 'Per well' cost times number of known or estimated wells in district 'TABLE 1, TABLE 4'..... C. Actual Plugging Costs 1. Estimated average plugging cost per well. Wells may be classified into two or three depth groups Total estimated plugging cost 1. 'Per well' cost times number of known or estimated wells in district Recommendations

Need for changes or expansion of existing programs

B. Other

APPENDIX B
PUBLIC INFORMATION

...putting a cap on —

FREE FLOWING WELLS

St. Johns River Water Management District

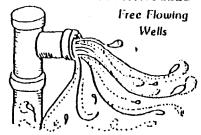
Brochure produced by St. Johns River Water Management District: A Brief Explanation of the Problems of Uncontrolled Free Flowing Wells and the District Well Plugging Program.

PROPERTY OF

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

WANTED

LOCATION OF UNCONTROLLED



REWARD

Reducing the waste of our groundwater resource

MODUS OPERANDI

Uncontrolled free-flowing wells are often unused or abandoned. They are sometimes used for stock watering, for crop irrigation, or for mosquito control purposes.

OFFENSES

Flowing well water is wasted when allowed to flow uncontrolled year-round.

Since 1953, all artesian wells are required to have a valve or other device to control the flow of water and prevent the water from going to waste (FLA. STATUTES CHAPTER 373.206, .208. CITY ORDINANCE CODE CHAPTER 625.301, .307).

CALL

633-3419

DEPARTMENT OF HEALTH, WELFARE AND BIO-ENVIRONMENTAL SERVICES WATER CONSERVATION

515 W. 6IN STREET
JACKSONVII.LE. FLORIDA 32206



LOCATION OF UNCONTROLLED



REWARD

Reducing the waste at our groundwater resource
Reducing the contamination of our tresh surface water
badies from brackish well water

MODUS OPERANDI

Uncontrolled free-flowing wells are aften unused or about daned. They are sometimes used for stock watering, for crop firigation, or for masquita control purposes.

offenses

Flowing well water which is of brackish quality can polluts fresh surface waters, such as the St. Johns River. Flowing well water which is of fresh quality is wasted when allowed to flow uncontralited year-round.

Since 1953, all ortasion wells are required to have a valve or other device to contol the flow of water and prevent the water from guing to waste FFLA. STATUTES CHAPTER 373-206, 209).

CVFF

Brevaid County Water Resources Ospartment at 453-9515, or stop by the Merrill Island Courthouse

The dispusion of the position on territor through a 200 bearing grap from the U.S. Semination of these territories, under the programme of Section 100 of the Fourier Association Consideration dispusions of 1888.

Wanted Poster Produced by Cooperating Government Agencies in the District. (Reduced from 8-1/2" X 14" Originals)



ROUTE 2 BOX 595 PALATKA FLORIDA 32077 TELEPHONE (504) 325-5363

INFORMATION RELEASE

April 5, 1981

For Release: Immediate

CITIZENS REQUESTED TO ASSIST IN FREE FLOWING WELL INVENTORY

Billions of gallons of fresh water are needlessly wasted each year in Florida from uncontrolled free flowing wells.

A four inch well can flow as much as 150 to 200 gallons per minute (gpm), resulting in the loss of 288,000 gallons per day (gpd), or 100 million gallons per year. A six inch free flowing well can produce as much as 500 gpm, wasting 720,000 gpd or 260 million gallons per year.

The St. Johns River Water Management District is conducting a program to locate uncontrolled free flowing wells, and to collect data on the water quality and flow rate of each well.

Persons who know the location of abandoned free flowing wells are urged to contact the District.

The purpose of the free flowing well inventory is to determine the magnitude of the problem, and to identify areas in the District most affected by water loss from the wells. Results of the inventory will ultimately be used to evaluate the cost and methods available to minimize the problem.

In addition to the needless waste of valuable groundwater resources, many wild free flowing wells contain a high salt content and cause salt water contamination of shallow aquifers, rivers, lakes and streams. Wells with damaged or eroded casing also contribute other types of pollution.

The District's well inventory is being conducted in Baker, Clay, Duval, Flagler, Indian River, Putnam, St. Johns, Seminole

(MORE)

Citizens requested to Assist in Free Flowing Well Inventory April 5, 1981 Page two

and Volusia Counties.

The program also includes portions of Alachua, Bradford,
Lake, Marion, Ckeechobee, Orange, Osceola and Polk Counties
that are within St. Johns District boundaries.

Wild, free flowing wells are often located near abandoned homesteads, in old agricultural areas and in pastures. They are usually found in low lying areas, particularly near the coast and along inland rivers.

District hydrologists have identified 2 wells in Putnam

County, 4 in Indian River County, 5 in Clay County, 7 in

Nassau County, 8 in Flagler County, 12 in Volusia County and

20 in both Duval and Brevard Counties. It is estimated that

St. Johns County has approximately 30 free flowing wells, and that Brevard has 170 wells in addition to those already cataloged.

Urban, agricultural, industrial and recreational demand for water is increasing at a rapid rate to keep page with Elorida's expanding population. Fresh water supplies in some areas are already stressed by overdemand. Projections for the future indicate that Florida will account for one-sixth of the nations growth between the present and the year 2000.

To meet further water needs, waste must be reduced to a minimum and the quality of ground and surface water must be protected. Minimizing water loss from uncontrolled free flowing wells could conserve billions of gallons each year.

Anyone knowing the location of uncontrolled free flowing wells is asked to call or write Hydrologist, Alan Aikens, St. Johns River Water Management District, P.O. Box 1429, Palatka, Florida, 32077, or (904) 328-8321.

APPENDIX C INVENTORY OF FREE-FLOWING AND PLUGGED WELLS

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT LISTING OF ALL WELLS PLUGGED BY THE FREE FLOWING WELL PROGRAM

COUNTY	OWNER	WELL	STATUS	WELL USE	L	A	T	L	0	N	CASE	WELL	WELL
		ID			De	Mi	Se	De	Mi	Se	DEPTH	DEPTH	DIAM
BREVARD	AQUIRINA		PLUGGED	UNUSED		55			29		195	439	4.00
	AQUIRINA		PLUGGED	UNUSED		55			29		-	-	3.00
	BEACHNOODS		PLUGGED	UNUSED		1			32		-	-	1.50
	BETHESDA RET HOME		PLUGGED	UNUSED		1			35			1360	4.60
	BREVARD CO MC		PLUGGED	UNUSED		24			40		78	220	4.00
	BREVARD CO. M. C.		PLUGGED	UNUSED		17			40		-	290	4.00
	BREVARD CO. MC		PLUGGED	UNUSED	27		8		27		192	449	4.00
	BREVARD CO. MC		PLUGGED	UNUSED		52			28	3	103	496	4.00
	BREVARD CO. MC		PLUGGED	UNUSED		52			28	7		203	4.00
	BREVARD CO. MC		PLUGGED	UNUSED	27		1		28	4	-	•	4.00
	BREVARD CO. MC		PLUGGED	UNUSED	27				28		193	465	4.00
	BREVARD CO. MC		PLUGGED	UNUSED		53			28		-	-	4.99
	BREVARD CO. MC		PLUGGED)	UNUSED		54			28		191	358	4.00
	BREVARD CO. MC		PLUGGED	UNUSED		55			29		-	496	4. 98
•	BREVARD CO. MC		PLUGGED)	UNUSED		56			39		-	386	4.99
	BREVARD CO. MC		PLUGGED)	UNUSED		56			3Ø		193	425	4.00
	BREVARD CO. MC		PLUGGED	UNUSED		18			40		-	•	4.00
	BREWER, GRAY		PLUGGED	UNUSED		26			45		, *	-	2.60
	CITY OF COCOA BEACH		PLUGGED)	UNUSED		21			36		888	33Ø	4.99
	CITY OF PALM BAY		PLUGGED	UNUSED			7		43			349	6.00
	CITY OF ROCKLEDGE		PLUGGED	UNUSED		19			44			-	4.99
	COUCH PUMPS		PLUGGED	UNUSED		55			31				12.99
	COUCH PUMPS		PLUGGED)	UNUSED		55			31			628	8. 99
	CRISAFULLI, B.		PLUGGED	UNUSED		28			42		-	-	4.00
	DAVIS		PLUGGED	UNUSED		15			40				4.00
-	DNR-PARKS AND REC.		PLU66ED	UNUSED		52			27		81	392	4.98
	ENTERPRISE INTERNATI			UN'USED		18			44		84	-	4.09
	FOOSANER		PLUGGED	UNUSED		27			41			229	4.60
	FOOSANER		PLUGGED	UNUSED		27			41				3.00
	FOOSANER			UNUSED		27			41				4.99
	FOOSANER		PLUGGED	UNUSED		27			41			212	4.60
	GDC		PLUGGED	UNUSED		56			42			•	6 .99
	GDC		PLUGGED	UNUSED		56			42			-	4.99
	GEN. DEVELOP. CORP.			UNUSED		54			49				6.00
	GEN. DEVELOP. CORP.	BR259		UNUSED		55			40				6.00
	GEN. DEVELOP. CORP.		PLUGGED	UNUSED		55			41				6.99
	GEN. DEVELOP. CORP.		PLUGGED	UNUSED		56			41				2.00
	GEN. DEVELOP, CORP.		PLUGGED	UNUSED		59			41				4.99
	GEORGE BALL		PLUGGED	UNUSED		18			36				4.99
	JACK SIMPSON	BR602		UNUSED		22			46				4.89
	MTDCD		PLUGGED	UNUSED		55			41			225	2.99
	NASA	BR367		UNUSED		34			39				4.99
	NASA	BR587	PLUGGED	UNUSED		39			46			200	4.00
	NASA .	BR588	PLUGGED	UNUSED		31			38			•	4.66
	NASA	BR589	PLUGGED	UNUSED		28			39			400	4.99
	NASA	BR595	PLUGGED	UNUSED			43		40				4.00
	NASA	PR6Ø9	PLUGGED	UNUSED	28	29	7	ΘØ	41	1	-	-	8.00

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT LISTING OF ALL WELLS PLUGGED BY THE FREE FLOWING WELL PROGRAM

COUNTY	CHANER	ID	STATUS	WELL USE			T Se				CASE DEPTH		WELL DIAM
PREVARD	NASA PATRICK AFB UNDETERMINED WOLFMAN	BRØ663 BR4Ø9	PLUGGED PLUGGED PLUGGED PLUGGED	UNUSED UNUSED UNUSED UNUSED	28 27	13 52	18 6 11 5Ø	89	36 27	24 22	-	466	6.00 6.00 4.00 4.00
BREVARD													51
FLAGLER	ARMOND FISHETTE ARMOND FISHETTE HAMMOCK BAPTIST CHUR HODGES HODGES IHLENFELDT ITT PALM COAST PUBLIC DOMAIN SHAEFFER SHOW, GEARLDINE UNDETERMINED UNDETERMINED UNDETERMINED WESTBROOK, J.H	F222* F220* F-0237 F-0253 F223* F207* F224* F2054 F134 F209* F213*	PLUGGED	UNUSED	29 29 29 29 29 29 29 29 29 29 29 29 29	35 35 25 25 36 35 37 37 33 25 25 25	47 17 17 28 Ø 1	81 81 81 81 81 81 81 81	11 11 25 25 12 11 11 8 12 19 25 25	5Ø 47 42	888 - - 147 888 - 888 - 134	888 - - 158 888 - 888 - 152 -	6.00 6.00 4.00 2.00 4.00 6.00 6.00 4.00 6.00 9.00 9.00
FLAGLER										-			14
ST. JOHNS	DAVIS, J.E.	SJ521	PLUGGED	UNUSED	3Ø	· 4	5	81	23	16	-	-	3.00
VOLUSIA	A. RICH L. WOODRUFF WILDLIFE LAWERENCE FARMS, INC LAWERENCE FARMS, INC LAWERENCE FARMS, INC UNION BAG	V54** V51** V52** V53**	PLUGGED PLUGGED	UNUSED UNUSED UNUSED UNUSED UNUSED UNUSED UNUSED	29 29 29 29	3 7 7 7	45 24 52 48 46 43	81 81 81 81	22 21 21 21 21	35 22 9 9 6	- - -	125 - - - - 116	6.99 3.99 8.99 8.99 8.99 2.99
VOLUSIA													6

. 72

BREVARD COUNTY

ONNER	WELL ID	STATUS	WELL USE	L De 1						CASE DEPTH	WELL DEPTH	WELL DIAM	WATER Qual	GEOPHY LOGS
A.L. READDY	BR393	FLOWING	UNUSED	28 :	16	48	8Ø	40	22	126	248	4.00	YES	YES
AQUIRINA	BR437	PLUGGED	UNUSED	27 !	55	20	8Ø	29	37	195	439	4.00	YES	YES
AQUIRINA	BR438	PLUGGED	UNUSED	27 5			80	29	21	-	-	3.00		-
ATLANTIC RIDGE CORP	BR9 9 *	FLOWING	UNUSED	27 !					35	-	•	4.00		-
BAKER HARVERY L. JR.			UNUSED		22				55	•	600	4.00		-
BEACHWOODS	BR227	PLUGGED	UNUSED	28		53			31	-		1.50		-
BETHESDA RET HOME		PLUGGED	UNUSED	28		35			16		1360	4.00		YES
BLISS (HELM)	BR433	FLOWING	IRRIGATION	28					50	-	•	6.00		-
BOY SCOUTS-ORLANDO	BR199	FLOWING PLUGGED	RECREATION	27 !					13	- 70	220	4.00 4.0 0		YES
BREVARD CO MC BREVARD CO.	BR386	FLOWING	unused Unused	28 : 28 :					47	78 -	-	4.00		-
BREVARD CO. DIST 3	BR1Ø1	FLOWING	UNUSED	27 !					43	-	316	4.00		-
BREVARD CO. M. C.	BR209	FLOWING	UNUSED	28 2					35	_	210	2.00		•
BREVARD CO. M. C.	BR394	PLUGGED	UNUSED	28					27	-	299	4.99		· _
BREVARD CO. M.C.	BR233	FLOWING	IRRIGATION	28					55 55	-		4.99		-
BREVARD CO. M.C.	BR388	FLOWING	IRRIGATION	28				41		-	-	4.60		-
BREVARD CO. M.C.	BR389	FLOWING	IRRIGATION	28					24	-	•	6,00		-
BREVARD CO. M.C.	BR496	FLOWING	UNUSED	28					34	-	260	4.69		-
BREVARD CO. M.C.	BR412	FLOWING	IRRIGATION	28		53			14	_	-	3.00		-
BREVARD CO. M.C.	BR43Ø	FLOWING	UNUSED	- 28			88	41	. 17	82	152	4.99	YES	-
BREVARD CO. MC	BR210	FLOWING	UNUSED	28	22	47	80	41	. 5	-	-	4.99	YES	-
BREVARD CO. MC	BR213	FLOWING	UNUSED	28	25	43	86	41	. 22	-	-	4.89	YES.	-
BREVARD CO. MC	BR219	FLOWING	UNUSED	28			89	43	15		-	4.96	YES	-
BREVARD CO. MC	BR238	FLOWING	UNUSED	28					46	195	261	4.99		-
BREVARD CO. MC	BR239	FLOWING	UNUSED	28					23	-	-	3.00		-
BREVARD CO. MC	BR248	FLOWING	UNUSED	28					15		•	3.00		-
BREVARD CO. MC	BR241	FLOWING	UNUSED	28		2			45		172	4.00		-
BREVARD CO. MC	BR78*	PLUGGED	UNUSED	27		8			17		449	4.00		YES
BREVARD CO. MC	BR79*	FLOWING	UNUSED	27		6			25		466	4.99		-
BREVARD CO. MC	BR8Ø* BR81*	PLUGGED	UNUSED	27			89					4.99		YES YES
BREVARD CO. MC BREVARD CO. MC	BR82*	PLUGGED PLUGGED	unused Unused	27 27		1	89) 28) 28			203	4.00 4.00		165
BREVARD CO. MC	BR83*	PLUGGED	UNUSED	27		5) 20) 28				4.00		YES
BREVARD CO. MC		FLOWING	UNUSED	27					3 15		700	4.99		-
BREVARD CO. MC		PLUGGED	UNUSED	27					3 17		-	4.00		-
BREVARD CO. MC		PLUGGED	UNUSED	27					3 38			4.99		YES
BREVARD CO. MC		PLUGGED	UNUSED	27					36		496	4.99		-
BREVARD CO. MC		FLOWING	UNUSED	27					7 40		-		YES	· -
BREVARD CO. MC		FLOWING	UNUSED	27					2 8		- .	4.00		-
BREVARD CO. MC	BR91*		UNUSED			9	8	3	3 24		386		YES	YES
BREVARD CO. MC	BR92*	FLOWING	UNUSED	27	56	2	8	3 31	g 22	-	387	4.00	YES	-
BREVARD CO. MC		PLUGGED	UNUSED			28			ð 32		425	4.00	YES	YES
BREVARD CO. MC		FLOWING	UNUSED			35			ð 48		-		YES	-
BREVARD CO. MC	BR95∗	FLOWING	UNUSED	27	58	58	8	Ø 3	1 18	-	329	4.00	YES	-

ONNER	MELT ID	STATUS	WELL USE	_	A Mi			0 Mi		CASE DEPTH	WELL DEPTH	WELL	WATER OLIAL	GEOPHY LOGS
	1.0				•••	•	-	•••	•	<i>D</i>	2 4	<i>D</i> 4741	QU/L	2000
BREVARD CO. MC	ER96*	FLOWING	UNUSED		58			31		-	346	4.29	YES	-
BREVARD CO. MC	_	FLOWING	UNUSED		58			31		-	346	4.99		-
BREVARD CO. MC		PLU6GED	UNUSED		18			40		-	•	4.60		-
EREVARD COUNTY		FLOWING	UNUSÉD		18			44		-	-	6.99		-
BREVARD COUNTY		FLOWING	IRRIGATION		24			41		-	-	4.00		-
BREVARD COUNTY		FLOWING	IRRIGATION		22			40		-	-	4.00		•
BREVARD COUNTY		FLOWING	IRRIGATION		16			40	7	194	261	4.00		•
BREVARD COUNTY M. C.		FLOWING	IRRIGATION		19			40		•	-	4.66		-
BREWER, GRAY		PLUGGED	UNUSED		26			45		-	-	2.00		-
C. CRISAFULL		FLOWING	UNUSED		26			42		-	-	4.66		-
C.E. CARRIE	BR261	FLOWING	UNUSED		55			41		93	316	4.00		YES
CAPE CANAVERAL AFB	BR599	FLOWING	UNUSED		27			35		888	883	4.00		-
CAPE CANAVERAL AFB	BR6Ø1	FLOWING	UNUSED		29			32		888	838	3.00		-
CAPE CANAVERAL AFS	BR596	FLOWING	UNUSED		25			36		888	888	4.66		-
CAPE CANAVERAL AFS		FLOWING	UNUSED		26			35		888	888	4.00		-
CARLYLE PLATT		FLOWING .	UNUSED		57				28	-	•	3.00		-
CECIL PLATT	BR372	FLOWING	IRRIGATION	28		45			33	-	-	8.00		•
CHARLES CRISAFULLI	BR243	FLOWING	UNUSED	28		23			57 29	-	224	4.99		-
CITY OF COCOA BEACH		PLUGGED	UNUSED		21				24	888	33 Ø	4.00		-
CITY OF COCOA BEACH		FLOWING UNUSED	UNUSED	28 28		9			52	-	F11	2.00		-
CITY OF EAU GALLIE		UNUSED	PUBLIC	28		18			47	11Ø 888	511	6.99		
CITY OF MELBOURNE		UNUSED	PUBLIC IRRIGATION	28					53		688 35	3 .99 2.99		-
CITY OF MELBOURNE		UNUSED	PUBLIC	28		59	ວນ 80		- 53	99	30 4 9 9	6.99		-
CITY OF MELBOURNE		UNUSED	IRRIGATION	28		52			33	7 9 888	888	2.99		-
CITY OF MELBOURNE		UNUSED	PUBLIC	28		5 <u>#</u>	80			46	65	6.29		-
CITY OF MELBOURNE		UNUSED	PUBLIC	28		44	80		48	3		6.99		<u>-</u>
CITY OF MELBOURNE		UNUSED	PUBLIC	28		19	32		46	883		2.00		
CITY OF MELBOURNE	BR351	FLOWING	PUBLIC	28		58			14	-	600	12.00		_
CITY OF PALM BAY	BR282	PLUGGED	UNUSED	28					37	87		6.99		YES
CITY OF ROCKLEDGE	BR429	PLUGGED	UNUSED	28				44			J7/ -	4.00		-
CORRIGAN	BR246	FLOWING	IRRIGATION		49				18		-	2.00		-
COTNEY		FLOWING	UNUSED		24				38		888	4.00		_
COUCH PUMPS	BR423	PLUGGED	UNUSED		55				38		798	12.00		YES
COUCH PUMPS -	BR623		UNUSED		55				38			8.00		YES
COYLE 412 SUNSET BLV			IRRIGATION			20			49		-	2.00	_	-
CRISAFULLI, B.		PLUGGED	UNUSED		28				21		-	4.00		_
DAVENPORT		FLOWING	UNUSED			10		35			-	6.00		-
DAVIS		PLUGGED	UNUSED			57			17		261	4.99		-
DE VINCI INC.		FLOWING	IRRIGATION			22		31			-	2.00		-
DEER RUN		FLOWING	STOCK			26			23		-	2.00		-
DEER RUN		FLOWING	IRRIGATION			53	86	38	32	-	399	6.99		-
DEER RUN		FLOWING	STOCK	27	52	55	8£	38	59	-	3Ø5	6.0 0		•
DEER RUN	BR253	FLOWING	IRRIGATION	27	52	7	89	39	51	-	68ø	6.99	YES	-

OWNER	MELL	STATUS	WELL USE	L A T De Mi Se	L O N (De Mi Se l	CASE WELL DEPTH DEPTH	WELL WATER DIAM QUAL	GEOPHY LOGS
DESERET RANCH	BR231	FLOWING	STOCK	28 5 36	8Ø 46 43		4.00 YES	-
DNR-PARKS AND REC.	BR41Ø	PLUGGED	UNUSED	27 52 17	80 27 21	81 392	4.00 YES	YES
DRANDY	BR371	FLOWING	DOMESTIC	28 2 18	80 41 7		4.60 YES	-
E. L. WEGERIF	BR39Ø	FLOWING	UNUSED	28 18 23	80 40 54		2.00 YES	-
ENTERPRISE INTERNATI FLA. STATE MATHERS B		PLUGGED FLOWING	UNUSED UNUSED	28 18 3Ø 28 8 57	80 44 20 80 36 24	84 - 	4.00 YES	YES -
FOOSANER		PLUGGED	UNUSED	28 27 59	80 41 8	- 220	2.00 YES 4.00 YES	-
FOOSANER	BR598	PLUGGED	UNUSED	28 27 56	89 41 8	84 2 0 2	3.00 YES	YES
FOOSANER	BR591	PLUGGED	UNUSED	28 27 57	89 41 17	86 183	4.00 YES	YES
FOOSANER	BR594	PLUGGED	UNUSED	28 27 55	89 41 6	36 212	4.00 YES	YES
eDC .		FLOWING	UNUSED	27 55 52	80 42 22		6.00 YES	-
EDC		FLOWING	UNUSED	27 56 24	80 42 19		6.00 YES	-
6DC		PLUGGED	UNUSED	27 56 57	80 42 2		6.00 YES	-
edc	BRØ649	FLOWING	UNUSED	27 57 15	89 42 4		6.00 YES	-
6DC	BR 9659	FLOWING	UNUSED)	27 56 48	80 41 50		6.00 YES	-
edc	BRØ651	FLOWING	UNUSED	27 56 3	86 41 57		6.00 YES	-
GDC	BRØ652	PLUGGED	UNUSED	27 56 7	80 42 47		4.00 YES	-
GDC	BRØ653	FLOWING	UNUSED	27 56 15	80 42 32		6.00 YES	-
GDC C	BRØ654	FLOWING	UNUSED	27 56 36	89 42 34		6.00 YES	-
GDC	BRØ656	FLOWING	UNUSED	. 27 56 52	80 42 50		4.00 YES	-
GDC-CARLYLE PLATT	BR274	FLOWING	STOCK	27 58 12	80 42 18		6.00 YES	-
GDC-CARLYLE PLATT	BR275	FLOWING	STOCK	27 58 16	80 42 34	- •	4.98 YES	-
GDC-LOT FOR SALE	BR431	FLOHING	UNUSED	28 Ø 3 9	8Ø 39 3Ø	. - -	3.00 YES	-
GEN. DEV. CORP. LAWN		FLOWING	IRRIGATION	28 1 32	89 34 58		2.00 YES	-
GEN. DEV. FLOD. CORP		FLOWING	UNLISED	28 2 32	80 43 27	- 368	5.00 YES	-
GEN. DEVELOP. CORP.	BR225	FLOWING	STOCK	27 58 25	80 42 10		4.00 YES	-
GEN. DEVELOP. CORP.	BR226	FLOWING	STOCK	27 58 35	80 42 19	- 266	4.00 YES	-
GEN. DEVELOP. CORP.	BR258	PLUGGED	UNUSED	27 54 59	89 49 11	197 336	6.00 YES	YES
GEN. DEVELOP. CORP.	BR259 BR26 9	PLUGGED FLOWING	unused Unused	27 55 3Ø 27 55 2	SØ 4Ø 5Ø	124 335	6.00 YES	YES
GEN. DEVELOP. CORP.	BR262	PLUGGED	UNUSED	27 55 2 27 55 46	8 9 49 24 8 9 41 4 5	- 389 123 299	2.00 YES 6.00 YES	YES
GEN. DEVELOP. CORP.	BR263	PLUGGED	UNUSED	27 56 39	80 41 21	123 299 82 378	2.00 YES	YES
GEN. DEVELOP. CORP.	BR264	FLOWING	UNUSED	27 56 56	80 41 21		2.50 YES	-
GEN. DEVELOP. CORP.	BR265		IRRIGATION	27 56 48	89 42 21	- 322	4.00 YES	-
GEN. DEVELOP. CORP.			UNUSED	27 57 46	80 41 16	- 299	3.00 YES	-
GEN. DEVELOP. CORP.		FLOWING	UNUSED	27 59 56	80 33 20		0.00 YES	_
GEN. DEVELOP. CORP.		FLOWING	UNUSED	27 59 55	80 39 40		4.00 YES	-
GEN. DEVELOP. CORP.		PLUGGED	UNUSED	27 59 26	39 41 46	127 347	4.00 YES	YES
GEN. DEVELOP. CORP.	BR281	FLOWING	UNUSED	28 Ø 41	80 40 25	- 335	4.00 YES	-
GEN. DEVELOP. CORP.		FLOWING	UNUSED	27 56 16	89 41 2		6.89 YES	-
GEN. DEVEOP. CORP.		FLOWING	IRRIGATION	27 57 25	80 41 4		4.00 YES	-
GEORGE BALL	BR592	PLUGGED	UNUSED	28 18 45	89 36 36	888 888	4.00 YES	-
GOUGH 504 4TH AVE		FLOWING	IRRIGATION		8Ø 33 47	150 505	4.00 YES	-
HAPPED	BR234	FLOWING	UNUSED	28 29 49	89 39 51		0.00 YES	-

BREVARD COUNTY

OHNER	HELL	STATUS	WELL USE	L A			L De	O Mi		CASE DEPTH	WELL DEPTH	WELL DIAM	WATER QUAL	GEOPHY LOGS
HAROLD PLATT	BR279	FLOWING	STOCK	27 59			8ø			-	364	4.00		-
HAROLD PLATT	BR28Ø	FLOWING	STOCK	27 59			80			-	377	0.00		-
HARVEY RAY	BR415	FLOWING	IRRIGATION	28 17			8Ø			-	<u>-</u>	3.00		-
JACK SIMPSON	BR602	PLUGGED	UNUSED	28 22			80			112	371	4.99		YES
JACK STORY, SR	BR4Ø1	FLOWING	STOCK	28 21			80			-	•	6.99		-
JAMESTOWN CONDOS	BR232	FLOWING	UNUSED		3 43			35	4	-		4.00		-
JIM DIDATO	BR359	FLOWING	UNUSED		47		80			25	45Ø	4.00		-
KEMPHER	BR228 BR229	FLOWING FLOWING	STOCK		43		8Ø		32	-	295	4.99		-
Kempher Kempher	BR23 6	FLOWING FLOWING	STOCK STOCK		57 5 36		8Ø 8Ø			-	-	4.00		-
LA TURE	BR392	FLOWING	UNUSED	28 16			8Ø			-	-	4.09 2.09		_
LONE CABBAGE CAMP	BR2Ø4	FLOWING	UNUSED	28 27			8ø			-	_	2.00		_
LULP LEE 2924 MAIN	BR435	FLOWING	IRRIGATION		3 44			35		•	_	2.99		_
LULP LEE 2924 MAIN	BR435	FLOWING	IRRIGATION		3 49			35		-	-	2. 98		-
MARCUS BOOKIE	BR356	FLOWING	IRRIGATION	27 49			SØ			-	693	5.00		_
MELBOURNE COUNTRY CL			IRRIGATION		4 44		80			_	129	Ø.0 0		_
MELBOURNE COUNTRY CL			IRRIGATION		4 44		89			-	10	0.00		_
MELBOURNE COUNTRY CL			IRRIGATION		4 44		89			888	888	2.00		-
MOONEY	BR387	FLOWING	IRRIGATION	28 2			8Ø		7	-	400	4.00		-
MIDCD	BR365	PLUGGED	LINUSED	27 5			80			-	-	2.00		-
NASA	BR367	PLUGGED	UNUSED	28 34			80			131	225	4.00		YES
NASA	BR587	PLUGGED	UNUSED	28 3				46		112		4.88		YES
NASA	BR588	PLUGGED	UNUSED	28 3				38	2		-	4.99		YES
NASA	BR589	PLUGGED	UNUSED	28 .2			8₿	39	35	-	-	4.00	YES	YES
NASA	BR595	PLUGGED	UNUSED	28 3	3 4:	3	8Ø	40	14	ಚ	199	4.00	YES	YES
NASA	BR684	FLOWING	UNUSED	28 3	3 13	3	8€	39	38	-	-	6. 98	YES	-
NASA	BR6#5	FLOWING	UNUSED	28 2	7 3	7	8Ø	40	13	-	-	4.00	YES	-
NASA	ER6 9 6	FLOWING	UNUSED	28 2	9 1	3	89	39	11	-	-	6.99	YES	-
NASA	ER697	FLOWING	UNUSED	28 2	9 3!	5	8Ø	39	9	-	-	6.00	YES	-
NASA	BR6 08	OBSERVATION	UNUSED	28 2		i	89	40	48	149	220	4.00		YES
NASA	BR6 0 9	PLUGGED	UNUSED	28 2	9 '	7	8Ø	41	1	-	-	8.00	YES	-
NASA	BR610	PLUGGED	UNUSED	28 2				41	Ø		-	6.99		-
NASA	BR611	FLOWING	UNUSED	28 2			8Ø		1	-	•	12.00		-
NASA	BR612	FLOWING	UNUSED	28 3				41			-	6.00		-
NASA -		FLOWING	UNUSED	28 3				49			-	. 3.00		•
NASA		FLOWING	UNUSED	28 3				40			-	2.00		-
NASA		FLOWING	UNUSED	28 3				40			-	3.00		-
NASA		FLOWING	UNUSED	28 3				41			-		YES	-
NASA	BR617	FLOWING	UNUSED	28 3				49			-	6.00		-
NASA	BR618		UNUSED	28 3				40			-		YES	-
NASA	BR619	FLOWING	UNUSED	28 3				39			-	4.00		•
NASA	BR62#	FLOWING	UNUSED	28 3				40			-		YES	-
NEVINS	BR428		IRRIGATION	28 1				44			•		YES	-
NORRIS CATTLE CO.	BK498	FLOWING	STOCK	28 3	60	9	ರಖ	57	O.D.	-	-	1.99	YES	-

BREVARD COUNTY

OHNER	WELL ID	STATUS	WELL USE	L De 1	A Mi	T Se	L De	ű Mi		CASE DEPTH	WELL DEPTH	WELL DIAM	WATER QUAL	GEOPHY LOGS
PATRICK AFB	BRØ663 P	LUGGED	UNUSED	28	13	6	8Ø	36	24	160	262	6.00	YES	YES
PATRICK AFB	BRØ665 U	NUSED	IRRIGATION	28	11	3Ø	89	36	17	94	282	4.00	YES	YES
PATRICK AFB	BRØ666 U	NUSED	IRRIGATION	28	11	22	89	36	14	95	298	3.00	YES	-
PATRICK AFB	BRØ667 U	NUSED	IRRIGATION	28	11	27	8Ø	36	12	94	357	3.00	YES	-
PATRICK AFB	BRØ668 U	NUSED	IRRIGATION	28	11	27	8₽	36	4	95	350	4.00	YES	-
PATRICK AFB	BRØ669 U	INUSED	IRRIGATION	28	11	24	80	36	5	94	383	4.00	YES	-
PATRICK AFB	BRØ67Ø1U	NUSED	IRRIGATION	28	11	21	8Ø	35	58	94	297	3.00	YES	-
PATRICK AFB	BRØ671 U	NUSED	IRRIGATION	28	11	17	80	35	58	94	483	4.99	YES	-
PATRICK AFB	BRØ672 U	NUSED	IRRIGATION	28	11	19	8Ø	36	9	195	33Ø	3.00	YES	•
PATRICK AFB	BRØ673 U	INUSED	IRRIGATION	28	11	16	8Ø	36,	2	94	444	4.00	YES	-
PATRICK AFB	BRØ674 U	NUSED	IRRIGATION	28	11	12	8Ø	36	Ø	94	501	4.00	YES	-
PATRICK AFB	BRØ675 U	NUSED	IRRIGATION	28	11	15	8ø	35	51	95	444	4.60	YES	-
PATRICK AFB	BRØ676 U	NUSED	IRRIGATION	28	11	17	89	35	49	195	355	3.00	YES	-
PATRICK AFB	BRØ677 U	INUSED	IRRIGATION	28	11	45	89	36	6	95	35€	4.00	YES .	-
PATRICK AFB	BR#678 LI	NUSED	IRRIGATION	28	11	42	89	36	12	94	366	3.00	YES	-
PATRICK AFB	BRØ679 U	NUSED	IRRIGATION	28	11	39	8Ø	36	13	94	386	3.66	YES	-
PATRICK AFB	BRØ68Ø U	INUSED	IRRIGATION	28	11	36	8Ø	35	14	95	383	4.30	YES	-
PATRICK AFB	BRØ681 U	INUSED	IRRIGATION	28	11	33	8Ø	36	11	95	259	4.60	YES	-
FERRY ELISON	BR333 F	LOWING	A/C	28	22	32	8Ø	42	46	-	-	2.00	YES	-
PHYLIS TINSLEY	BR419 U	INUSED	INDUSTRIAL	. 28	25	43	8 9	42	59	-	-	8.2 9	-	-
POTEET	BR421 F	LOWING	STOCK	27	50.	45	8Ø			-	234	6.40	YES	-
PULLEN .			UNUSED	28			8 9	38	54	-	•	2.99	YES.	-
CUARBURG	BR428 F	LOWING	IRRIGATION	27	49	59	3€	50	39	. •	-	6. 99		-
RAY COBBS	BR385 F	LOWING	IRRIGATION	28		3	8Ø	42	28	89	420	6.99	YES .	-
RAY VAN ORSDALE	BRØ639 F	LOWING	UNUSED		9		8Ø	38	32	-	-	12.00		-
ROCKLEDGE GOLF COUR		LOWING	IRRIGATION		29	13	89	44	49	-	-	4.99		-
rockledge golf cour			RECREATION	28		8		44	42	-	-	4.99		-
ROCKLEDGE GOLF COUR		LOWING	IRRIGATION	28		2		45	6	-	•	4.00		-
SEIB GROVE		LOWING	IRRIGATION	27				37		-	•	4.00		.=
SOMERFIELP		LOWING	IRRIGATION	28				39	3	-	325	4.00		-
STEVE FANCZL		LOWING	IRRIGATION	28				40	39	-	-	3.00		-
TENDERFOOT RANCH		FLOWING	IRRIGATION	28			8Ø		1	-	-	4.00		-
TRICO GROVE		LOWING	IRRIGATION	27				41		-	-	4.00		-
TRIO GROVE -		FLOWING	IRRIGATION	27				41		-	•	4.00	YES	-
TRIO GROVE	BR272 F		IRRIGATION	27			8Ø			-	•	4.00		-
TRIO GROVE	BR273 F		IRRIGATION	27				41		-	3Ø9	6.00		-
TRIO RIPE GROVE	BR269 F		IRRIGATION	27				41		-	-	6.00		-
UNDETERMINED	BRØ643 F		UNUSED	28				41		-	6 00	4.90		-
UNDETERMINED	BRØ659 F		UNUSED		8			41		-	- .	4.99		-
UNDETERMINED	BR102 F		UNUSED	27				32		-	-	2.50		-
UNDETERMINED		LOWING	UNUSED	28				36		-	•	2.00		-
UNDETERMINED	BR182 F		UNUSED	27				35		-	-	6.09		-
UNDETERMINED	BR2ØØ F		IRRIGATION	28				40		-	-	4.00		-
UNDETERMINED	BR237 F	-LOWING	STOCK	28	21	5Ø	89	51	15	-	-	2.99	YES	-

BREVARD COUNTY

(NNER	WELL.	STATUS	WELL USE	LA	T L	. 0	N	CASE	WELL	WELL	WATER	GEOPHY
	ID			De Mi	Se De	Mi	Se	DEPTH		DIAM		LOGS
UNDETERMINED	BR244	FLOWING	UNUSED	28 19 !		39	52	-		2.00	YES	-
UNDETERMINED	BR25Ø	FLOWING	STOCK	27 53 !	57 89	36	37	-	469	2.00	YES	-
UNDETERMINED	BR252	FLOWING	STOCK	27 53 2	21 80	39	24	-	•	2.99	YES	-
UNDETERMINED	BR254	FLOWING	STOCK	27 53 3	25 89	39	16	-	•	2.99	YES	-
UNDETERMINED	BR255	FLOWING	STOCK	27 53 !	51 80	40	4	-	333	3.00	YES	-
UNDETERMINED	BR256	FLOWING	STOCK	27 53	51 80	42	4	-	-	2.00	YES	-
UNDETERMINED	BR257	FLOWING	STOCK	27 54	16 89	39	4	-	315	6.99	YES	-
UNDETERMINED	BR374	FLOWING	POWER	28 12		36	26	-	-	6.00	YES	-
UNDETERMINED	BR375	FLOWING	POWER	28 12		36		-	-	6.00	YES	-
UNDETERMINED	BR377	FLOWING	UNUSED	28 10	18 89	37	14	-	-	4.00	YES	-
UNDETERMINED	BR378	FLOWING	UNUSED	28 19	17 89	37	13	-	-	4.99	YES	-
UNDETERMINED	BR384	FLOWING	UNUSED	28 15	38 89	41	5	-	-	4.00	YES	-
UNDETERMINED	BR395	FLOWING	UNUSED	28 16	5 89	39	55	-	-	2,00	YES	-
UNDETERMINED	BR397	FLOWING	UNUSED	28 15	48 89	41	16	-	-	0.9 9	YES .	-
LINDETERMINED	BR4 <i>66</i>	FLOWING	UNUSED	28 29 ·	45 89	46	34	-	-	6.99	YES	-
UNDETERMINED	BR499	PLUGGED	UNUSED	27 52	11 80	27	22	-	466	4.00	YES	-
UNDETERMINED	BR416	FLOWING	IRRIGATION	28 2 9	49 82	39	42	-	-	2.00	YES	-
UNDETERMINED	BR417	FLOWING	IRRIGATION	28 23	37 89	36	54	-	-	3.00	YES	-
UNDETERMINED	ER418	FLOWING	IRRIGATION	28 23	59 82	42	34	-	294	3.00	YES .	-
UNDETERMINED	BR422	FLOWING	UNUSED	27 51	31 89	27	4	-	-	0.00	YES	-
UNDETERMINED	BR424	FLOWING	UNUSED	27 59	13 80	33	20	•	-	1.59	YES	-
UNDETERMINED	BR425	FLOWING	STOCK	<i>2</i> 7 59	53 89	44	42	-	-	4.09	YES	-
LINDETERMINED	BR426	FLOWING	UNUSED	28 11	26 82	37	48	. •	-	2.00	YES	-
W. C. ROPER	BR413	FLOWING	IRRIGATION	28 7	18 89	37	32	-	-	6.00	YES	-
WARREN WOOTEN	BR396	FLOWING	UNUSED	28 15	52 86	41	10	-	-	6. 00	YES	-
WATER WAY ESTATES	BR376	FLOWING	POWER	28 12	43 84	36	29	-	-	2.99	YES	-
WATERWAY ESTATES	Bk373	FLOWING	OTHER	28 12	26 89	36	26	-	-	6.00	YES	-
MICKHAM PARK	BR382	FLOWING	RECREATION	28 9	34 89	39	46	195	6 99	4.99	YES	-
HICKMAN PARK	BR383	FLOWING	RECREATION	28 9	51 89	39	40	195	559	6.99	YES	-
WINDWARD APTS.	PR368	FLOWING .	UNUSED	28 2	14 86	37	11	-	-	2.09	YES	-
HOLFMAN	BR99*	F1LUGGED	UNUSED	28 13	5 0 84	40	38	194	141	4.00	YES	YES

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT REPORT ON

THE FREE FLOWING WELL INVENTORY CLAY COUNTY

CWNER	WELL	STATUS	WELL USE	L De	A Mi	T Se	L De	O Mi		CASE DEPTH	WELL DEPTH	WELL DIAM	WATER QUAL	GEOPHY LOGS
DIV OF FORESTRY	C5***	FLOWING	DOMESTIC	3Ø	3	2	81	42	27	-	-	3.99	YES	••
DRIGGERS	C6***	FLOWING	DOMESTIC	29	51	44	81	37	17	-	6 99	6.00	YES	-
GEORGE THEOBALD	C-Ø118	FLOWING	UNUSED	3Ø	5	51	81	46	1	-	-	6.99	YES	-
JENNINGS	C1 9**	FLOWING	UNUSED	30	8	5Ø	81	55	20	300	33Ø	3.00	YES	-
L. J. IVEY	C1***	FLOWING	DOMESTIC	3Ø	Ø	48	81	41	43	300	365	3.00	YES	-
STOKE	C8***	FLOWING	UNUSED	3Ø	4	45	81	48	55	-	-	6.00	YE5	-
STOKE	C9***	FLOWING	RECREATION	3Ø	4	55	81	49	11	-	-	4.00	YES	-
TEMPLIN	C11**	FLOWING	UNUSED	3Ø	Ø	3 9	81	41	33	-	-	6.99	YES	-
TEMPLIN	C12**	FLOWING	UNUSED	3Ø	Ø	31	81	41	41	-	-	3.00	YES	-
UNDETERMINED	C13##	FLOWING	UNUSED	30	6	29	81	46	28	-	-	6.00	YES	-

DUVAL COUNTY

OWNER	WELL	STATUS	WELL USE	L	A	Ţ	L	0	N	CASE	WELL	WELL	WATER	GEOPHY
	ID			De	Mi	Se	De	Mi	Se	DEPTH	DEPTH	DIAM	QUAL	LOGS
CITY OF JACKSONVILLE	D433*	FLOWING	UNUSED	38	17	23	81	42	51	_	-	4.00	VEG	•
F.E.C. RAILWAY	D426*	FLOWING	UNUSED	3Ø		55		3Ø		-	_ ^	3.66		-
G.A. MHOON	D431*	FLOWING	UNUSED	30	21	9	81	28	40	-	-	3.00		-
HAROLD P. OMERANTE	D432*	FLOWING	UNUSED	3Ø	24	37	81	42	9	-	-	4.20	YES	-
MERIL CORP	D434*	FLOWING	UNUSED	3Ø	24	41	81	25	34	•	742	4.00	YES	-
R0#1C0	D435*	FLOWING	UNUSED	3Ø	17	33	81	43	17	-	-	10.00	YES	-
UNDERTIMINED	D428*	FLOWING	UNUSED	3Ø	23	18	- 81	36	47	-	-	6.00	YES	-
UNDERTIMINED	D429*	FLOWING	UNUSED	30	23	5	81	36	54	-	-	9.99	YES	-
UNDERTIMINED	D43Ø*	FLOWING	UNUSED	3Ø	23	18	81	3Ø	19	-	-	3.00	YES	-
UNDETERMINED	D436*	FLOWING	UNUSED	3Ø	11	35	81	34	13	-	-	3.00	YES	-
UNDETERMINED	D437*	FLOWING	UNUSED	3Ø	7	37	81	3Ø	4	-	-	3.00	YES	-
WALDON POND SOCIETY	D427*	FLOWING	UNUSED	3Ø	16	58	81	34	4	-	-	3.00	YES	-

CHAVER	WELL	STATUS	WELL !	USE	L	A	T	L	0	N	CASE	WELL	WELL	WATER	GEOPHY
	ID				De	Mi	Se	De	Mi	Se	DEPTH	DEPTH	DIAM	QUAL	LOGS
ARMOND FISHETTE	F221*	PLUGGED	UNUSED		29	25	1	81	11	ΑQ	888	888	6.00	VEG	_
ARMOND FISHETTE	F222*	PLUGGED	UNUSED			35	4	81		50	888	888	6.99		_
HAMMOCK BAPTIST CHUR		PLUGGED	UNUSED			35 35	•	81	_		-	-	4.00		-
HODGES		PLUGGED	UNUSED			25		81			_	_	2.00		-
HODGES		PLUGGED	UNUSED			25		81		43	_				-
											1 17	150	2.00		
IHLENFELDT		PLUGGED	UNUSED			36		81			147	153	4.00		YES
ITT PALM COAST		PLUGGED	UNUSED			35	Ø	81		35	883	888	6 .99	YES	-
PUBLIC DOMAIN	F-9239	FLOWING	UNUSED		29	25	25	81	25	3₿	-	-	2.00	YES	YES
PUBLIC DOMAIN	F207*	PLUGGED	UNUSED		29	34	1	81	11	11	-	-	6.00	YES	-
SHAEFFER	F224*	PLUGGED	UNUSED		29	29	11	81	8	3	888	888	2.00	YES	-
SHOW, GEARLDINE	F-9254	PLUGGED	UNUSED		29	37	9	81	12	19	-	-	4.00	YES	-
UNDETERMINED	F134	PLUGGED	UNUSED		29	33	38	81	10	5	134	152	4.99	YES	-
UNDETERMINED	F2 99 *	PLUGGED	UNUSED		29	25	23	81	25	38	-	-	6.99	YES	-
UNDETERMINED	F21 01	FLOWING	STOCK		29	25	<i>2</i> 2	81	25	38	-	-	3.00	YES	-
UNDETERMINED	F211*	FLOWING	STOCK		29	25	28	81	25	49	•	-	3.00	YES	-
UNDETERMINED	F212#	FLOWING	STOCK		29	25	28	81	25	53	-	-	4.00	YES	•
UNDETERMINED	F213*	PLUGGED	UNUSED		29	25	19	81	25	53	-	-	0.99	YES	-
UNDETERMINED	F214*	FLOWING	UNUSED	ı	29	25	21	81	25	53	-	-	9.66	YES	-
WASHINGTON OAKS S.P.	F2Ø8*	OBSERVATION	UNUSED		29	37	58	81	12	32	-	38Ø	4.99	YES	YES
WESTBROOK, J.H	F-0255	PLUGGED	UNUSED	ı	- 29	33	52	81	11	1	87	138	2.00	YES	•

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT REPORT ON THE FREE FLOWING WELL INVENTORY INDIAN RIVER COUNTY

OHNER	WELL	STATUS	WELL USE	L	A	T	L	0	N	CASE	WELL	WELL	WATER	GEOPHY
•	ID			De	Mi	Se	De	Mi	Se	DEPTH	DEPTH	DIAM	QUAL	LOGS
6DC	IR99*	FLOWING	RECREATION	27	47	19	80	27	25	_		3.99	VEC.	-
I. R. COUNTY MC.		FLOWING	UNUSED		51				42	_	- >	4.99		-
J.V.D'ALBORA CO.	IR271	FLOWING	UNUSED	27	46	53	89	25	9	-	-	8.00	YES	-
JOHN MCCUE	IRØ351	FLOWING	UNUSED	27	33	31	8Ø	27	54	-	- '	4.99	YES	-
KNIGHT, C. REED	IR273	FLOWING	IRRIGATION	27	39	49	89	23	21	-	-	6.00	YES	-
KRAFT, KURT H.	IR200	FLOWING	IRRIGATION	27	37	20	8Ø	22	56	-	-	6.00	YES	-
MARTIN, GREGORY-TRUS	IR272	FLOWING	UNUSED	27	49	3	89	23	17	-	•	6.00	YES	-
STRAZZULLA BROS, INC	IR199	FLOWING	IRRIGATION	27	37	19	89	22	56	-	-	6.00	YES	-
U.S. GOVT.	IR198	FLOWING	IRRIGATION	27	37	19	89	22	56	-	946	6.00	YES	-
UNDETERMINED	IR42*	FLOWING	IRRIGATION	27	51	11	8Ø	26	44	-	-	4.99	YES	-
VERO BEACH FARMS	IR237	FLOWING	DOMESTIC	27	45	23	89	3Ø	42	-	-	6.00	YES	-

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LAKE COUNTY

ONNER	ID WETT	STATUS	WELL USE	_		T Se	_	-		CASE DEPTH	METT METT	WELL WATER DIAM QUAL	GEOPHY LOGS
A.M. COLLINS, JR	Li***	FLOWING	RECREATION	29	10	27	81	32	11	-	-	10.00 YES	-
U.S. FOREST SERVICE	L-0060	FLOWING	UNUSED	29	Ø	31	81	23	28	-	-	6.00 YES	•
UNDETERMINED	L2***	FLOWING	OTHER	29	10	2	81	31	27	-	-	4.00 YES	-

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT REPORT ON

THE FREE FLOWING WELL. INVENTORY MARION COUNTY

OWNER	WELL ID	STATUS	WELL USE	L De		.T Se	L De	O Mi			WELL		WATER Qual	GEOPHY LOGS
COUNTY RIGHT OF WAY	M2 ***	FLOWING	UNUSED	29	11	2	81	59	33	-	- .	4.99	YES	-
G.C. HEINEMANN	M4***	FLOWING	OTHER	29	17	43	81	35	15	-	-	6.00	YES	-
HASTINGS & GREEN	M-0043	FLOWING	UNUSED	29	23	49	82	5	26	838	888	6.00	YES	-
HEINEMANN, G.C.	M5***	FLOWING	OTHER	29	17	43	81	35	15	-	- '	4.00	YES	-
LARRY MOODY	M7***	FLOWING	RECREATION	29	17	38	81	35	20	-	-	6.00	YES	-
PONDEROSA SHORES, IN	M9***	FLOWING	OTHER	29	17	17	81	35	3	-	-	6.99	YES	-
PONDERROSA SHORES, I	#8***	FLOWING	OTHER	29	17	27	81	35	4	-	-	6.00	YES	-
UNDETERMINED	M3***	FLOWING	OTHER	29	17	49	81	35	34	-	-	6.99	YES	-
UNDETERMINED	M6***	FLOWING	UNUSED	29	17	40	81	35	12	-	-	4.99	YES	-
VANCE, BILL	M1 xxx	FLOWING	UNUSED	29	27	28	81	55	7	-	-	4.99	YES	-

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT REPORT ON

THE FREE FLOWING WELL INVENTORY NASSAU COUNTY

CHINER	WELL	STATUS	WELL USE	L De	• • •	T Se	_	_		CASE DEPTH	MELL	WELL WATER DIAM QUAL	GEOPHY LOGS
JOHNSON LAKE UNDETERMINED		FLOWING FLOWING	UNUSED DOMESTIC	3Ø : 3Ø		• •	81 81	• •	54 18		-	2.00 YES 4.00 YES	-

OMNER	ID	STATUS	WELL USE			N CASE WELL e DEPTH DEPTH		
CITY RIGHT OF WAY	0R1++	FLOWING	UNUSED	28 32 14	89 58 3	4	2.00 YES	-

OWNER	WELL	STATUS	WELL USE	L	A	T	L	0	N	CASE	WELL	WELL	WATER	GEOPHY
	ID			De	Mi	Se	De	Mi	Se	DEPTH	DEPTH	DIAM	QUAL	L063
CORPS OF ENGINEERS	P-Ø3Ø6	FLOWING	OTHER	29	33	Ø	81	52	39	105	189	8.00	YES	-
GEORGIA PACIFIC	P434*	FLOWING	UNUSED	29	40	28	81	39	37	-	-	2.00	YES	-
MEELEY REED	P433*	FLOWING	RECREATION	29	21	38	81	37	51	-	-	4.99	YES	-
RAFAEL PUIG	P428*	FLOWING	UNUSED	29	45		81	34	56	-	-	6.00	YES	-
RAVINE STATE GARDENS	P418*	FLOWING	UNUSED	29	37	59	81	38	34	-	-	3.00	YES	-
RAVINES STATE GARDEN	P-0454	FLOWING	UNUSED	29	37	5Ø	81	38	53	838	888	4.00	YES	-
RAVINES STATE GARDEN	P-9455	FLOWING	UNUSED	29	37	5Ø	81	38	51	888	888	4.00	YES	-
RAVINES STATE GARDEN	P- Ø4 56	FLOWING	UNUSED	29	37	5Ø	31	38	5Ø	888	888	4.00	YES	-
RAVINES STATE GARDEN	P-Ø457	FLOWING	UNUSED	29	37	54	81	38	46	888	888	2.00	YES	-
RAVINES STATE GARDEN	P-9458	FLOWING	UNUSED	29	38	5	81	38	52	888	888	2.00	YES	-
RAVINES STATE GARDEN	P-Ø459	FLONING	UNUSED	29	38	6	81	38	53	888	888	2.00	YES	-
ROBERT REVEL	P-@453	FLOWING	UNUSED	29	39	57	81	34	6	-	-	4.00	YES	-
S.C.L. RAILROAD	P425*	FLOWING	UNUSED	29	35	45	81	40	59	-	-	2.99	YES	-
TILTON	P-0452	FLOWING	UNUSED	29	49	10	81	34	29	-	-	4.09	YES .	-
UNDETERMINED	P-9917	UNUSED	UNUSED	29	34	39	81	52	42	-	•	3.00	YES	•
UNDETERMINED	P414#	FLOWING	UNUSED	29	35	31	81	37	41	-	-	3.00	YES	-
UNDETERMINED	P415#	FLOWING	OTHER	29	26	34	81	35	33	-	-	0.00	YES	-
UNDETERMINED	P419*	FLOWING	UNUSED	29	41	45	81	37	23	-	-	2.00	YES	-
UNDETERMINED	P424*	FLOWING	UNUSED	29	4Ø	12	81	36	51	-:	-	4.00	YES	•
UNDETERMINED	P429*	FLOWING	UNUSED	29	39	42	81	36	12	-	-	4.09	YES	-
UNDETERMINED	P43 8*	FLOWING	UNUSED	29	41	19	81	35	33	-	-	4.00	YES	-
UNDETERMINED	P431*	FLONING	UNUSED	29	26	7	81	31	55	-	-	6.99	YES	-
UNDETERMINED	P432*	FLOWING	UNUSED	29	49	32	81	37	29	-	-	4.98	YES	-
UNDETERMINED	P448#	FLOWING	UNUSED	29	37	59	81	38	35	· -	-	4.99	YES	-
UNDETERMINED	P449*	FLOWING	UNUSED	29			81	43	39	-	-	4.00		-
WHITEHEAD	P-463	FLOHING	STOCK	29		7	81	37	47	-	-	4.00	YES	-

ARNOLD JACK SJØØØØ UNUSED INDUSTRIAL 28 55 52 81 33 17 888 888 4.00 YES - BEN ROBINSON SJØ531 FLOWING UNUSED 29 51 14 81 29 49 4.00 YES - DAVIS, J.E. SJ521 PLUGGED UNUSED 30 4 5 81 23 16 3.00 YES - FRAZIER SJØØ18 UNUSED INDUSTRIAL 30 0 53 81 35 8 888 888 4.00 YES - GUANO WILDLIFE MGT. SJ502 FLOWING OTHER 30 5 33 81 21 5 4.00 YES - GULF STREAM LAND & D SJ508 FLOWING UNUSED 30 3 38 81 38 39 12.00 YES -
BEN ROBINSON SJØ531 FLOWING UNUSED 29 51 14 81 29 49 4.00 YES - DAVIS, J.E. SJ521 PLUGGED UNUSED 30 4 5 81 23 16 3.00 YES - FRAZIER SJØ018 UNUSED INDUSTRIAL 30 0 53 81 35 8 888 888 4.00 YES - GUANO WILDLIFE MGT. SJ502 FLOWING OTHER 30 5 33 81 21 5 4.00 YES -
BEN ROBINSON SJØ531 FLOWING UNUSED 29 51 14 81 29 49 4.00 YES - DAVIS, J.E. SJ521 PLUGGED UNUSED 30 4 5 81 23 16 3.00 YES - FRAZIER SJØ018 UNUSED INDUSTRIAL 30 0 53 81 35 8 888 888 4.00 YES - GUANO WILDLIFE MGT. SJ502 FLOWING OTHER 30 5 33 81 21 5 4.00 YES -
DAVIS, J.E. SJ521 PLUGGED UNUSED 30 4 5 81 23 16 3.00 YES - FRAZIER SJ0018 UNUSED INDUSTRIAL 30 0 53 81 35 8 888 888 4.00 YES - GUANO WILDLIFE MGT. SJ502 FLOWING OTHER 30 5 33 81 21 5 4.00 YES -
FRAZIÉR SJØØ18 UNUSED INDUSTRIAL 30 Ø 53 81 35 8 888 888 4.00 YES - GUANO WILDLIFE MGT. SJ502 FLOWING OTHER 30 5 33 81 21 5 4.00 YES -
GUANO WILDLIFE MGT. SJ502 FLOWING OTHER 30 5 33 81 21 5 4.00 YES -
GULF SIKEAM LAND & D SJOYS FLUMING UNUSED SV 3 38 SI 38 37 12.00 YES -
HALLS NURSERY SJØØ15 UNUSED INDUSTRIAL 29 56 29 81 33 41 888 888 4.00 YES -
PUBLIC DOMAIN SJ518 FLOWING UNUSED 29 51 44 81 15 56 888 888 6.00 YES -
ST JOHNS CTY R OF WA SJ513 FLOWING UNUSED 29 54 57 81 26 43 4.00 YES -
ST. REGIS SJ507 FLOWING UNUSED 30 3 54 81 22 22 4.00 YES -
STEVE GREEN SJ511 FLOWING UNUSED 29 55 14 81 19 59 - 1500 6.00 YES -
TUGGEL SJØØØ6 UNUSED INDUSTRIAL 29 56 36 81 32 22 888 888 888.00
UNDETERMIND SJ509 FLOWING 30 3 55 81 23 9 4,00 YES -
UNDETERMINED SJØ529 FLOWING UNUSED 29 41 1 81 29 4 6.86 YES -
UNDETERMINED SJ9539 FLOWING UNUSED 29 49 52 81 29 6 6.90 YES -
UNDETERMINED SJ505 FLOWING UNUSED 29 57 51 81 26 53 4.00 YES -
UNDETERMINED SJ506 FLOWING UNUSED 29 56 46 81 26 38 4.00 YES -
UNDETERMINED SJ510 FLOWING UNUSED 29 55 6 81 19 9 6.00 YES -
UNDETERMINED SJ512 FLOWING UNUSED 29 49 23 81 16 23 6.00 YES -
UNDETERMINED SJ514 FLOWING UNUSED 30 7 38 81 23 4 6.09 YES -
UNDETERMINED SJ519 FLOWING UNUSED 29 55 39 81 17 44 838 888 6.00 YES -
UNDETERMINED SU520 FLOWING UNUSED 29 55 36 81 17 43 888 888 4.00 YES -
WELATKA FRUIT CO SJØ523 FLOWING UNUSED 29 41 34 81 29 36 51 524 6.00 YES YES
WELATKA FRUIT CO SJØ524 FLOWING UNUSED 29 41 36 81 29 36 55 516 6.00 YES YES
NELATKA FRUIT CO SJØ525 FLOWING UNUSED 29 41 29 81 29 36 60 503 6.00 YES YES
MELATKA FRUIT CO SJØ526 FLOHING UNUSED 29 41 26 81 29 36 81 484 6.00 YES YES
HELATKA FRUIT CO SJØ528 FLOWING UNUSED 29 40 50 81 29 44 6.00 YES -
MELATKA FRUIT CO. SJØ522 FLOWING UNUSED 29 41 37 81 29 36 60 510 6.00 YES YES
WELATKA FRUIT CO. SJØ527 FLOWING UNUSED 29 41 31 81 29 43 6.00 YES -

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT REPORT ON

THE FREE FLOWING WELL INVENTORY SEMINOLE COUNTY

CHINER	ID WELL	STATUS	WELL USE	L A T De Mi Se			CASE WELL DEPTH DEPTH	WELL WATER DIAM QUAL	GEOPHY LOGS
COUNTY RIGHT OF WAY	S1###	FLOWING	UNUSED	29 44 4	81 16	6 26		2.00 YES	-
STATE RIGHT OF WAY	S2***	FLOWING	PUBLIC	29 43 5	81 1	9 20		3.00 YES	-
UNDETERMINED	53 ***	FLOWING	RECREATION	29 40 10	81 20	6 28		2.00 YES	-

VOLUSIA	COUNTY
AOPPOIN	COUNTI

OHNER	WELL	STATUS	WELL USE		A		_	_		CASE			WATER	GEOPHY
	ID			De	Mi	Se	De	Mi	Se	DEPTH	DEPTH	DIAM	QUAL	LOGS
A. RICH	V-Ø159	PLUGGED	UNUSED	28	56	45	8Ø	52	35	-	125	6 .99	YES	-
CITY OF DAYTONA B	V-0200	OBSERVATION	UNUSED	29	19		89	59	4	197	160	10.00	YES	YES
CITY OF NEW SMYRNA B	V-Ø18Ø	FLOWING	INDUSTRIAL	29	1	3	89	55	19	130	998	12.00	YES	YES
J.E. PEARSON	V55 ++	FLOWING	UNUSED	29	58	21	81	5	38	-	- :	1.00	YES	-
J.E. PEARSON	V56**	FLOWING	DOMESTIC	29	56	21	81	5	38	-	-	2.00	YES	-
L. WOODRUFF WILDLIFE	¥54 ±±	PLUGGED	UNUSED	29	3	24	81	22	22	-	-	3.00	YES	-
LAWERENCE FARMS, INC	V51## .	PLUGGED	UNUSED	29	7	52	81	21	9	-	-	8.00	YES	-
LAWERENCE FARMS, INC	V52**	PLUGGED	UNUSED	29	7	48	81	21	9	-	-	8.00	YES	-
LAWERENCE FARMS, INC.	V53 **	PLUGGED	UNUSED	29	7	46	81	21	9	-	-	8. <i>99</i>	YES	-
MURRY SAMS	V49 **	FLOWING	UNUSED	29	8	5	81	21	53	-	-	12.00	YES	-
MURRY SAMS	V5 0++	FLOWING	UNUSED	29	8	5	81	21	56		-	8.00	YES	-
STONE IS. HOMEOWNERS	V57 + +	FLOWING	UNUSED	29	50	42	81	14	8	-	-	8.00	YES	-
STONE IS. HOMEOWNERS	V58 ± ∗	FLOWING	UNUSED	29	50	44	81	14	1	-	-	3.00	YES	-
UNDETERMINED	V- 99 94	FLOWING	UNUSED	29	51	44	81	52	21	-	-	8.00	YES	-
UNDETERMINED	V-9996	FLONING	UNUSED	28	52	13	81	16	55	-	•	Ø.0 0	YES	-
UNDETERMINED	V-Ø158	FLOWING	UNUSED	29	9	3Ø	81	22	53	-	-	4.00	YES	-
UNDETERMINED	V-Ø2Ø1	FLOWING	UNUSED)	29	1	48	89	57	28	-	-	6.00	YES	-
UNDETERMINED	V59**	FLOWING	UNUSED	28	52	45	81	21	43	-	-	3.00	YES	-
UNDETERMINED	V6 0**	FLOWING	UNUSED	29	15	3	81	7	18	-	-	4.00	YES	-
UNDETERMINED	V61**	FLOWING	UNUSED	29	5	13	81	2	47	-	-	3.00	YES	-
UNION BAG	V-Ø154	PLUGGED .	UNUSED	29	15	43	81	32	6	99	116	2.99	YES	-
VOLUSIA COUNTY	V-9182	FLOWING .	UNUSED	29	1	34	89	57	27	-	-	2.09	YES	-
W.L. TOMPKINS-LEASEE	V- <i>00</i> 95	FLOWING	STOCK	29	10	15	81	21	57	. •	-	4.99	YES	-

23

WELL DATA BASE HEADER FILE

STATION NAME TOPO GUAD SECTION THEP RINGE GUADRANT
PROJECT NO. ACUIFER DEPTH CASING WELL PENETRATION CLAMETER
SATE DRILLED WELL USE CODE LEVELS RECORDER OW OWNERS NAME
OWNERS NAME (CONTINUED) PERIOD OF RECORD YEARS MOS. STATUS FREDUENCY OR
EXTREME HIGH DAY MONTH YEAR STAGE DAY MONTH YEAR STAGE 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
MEASURING POINT (LSD) MEASURING POINT (MSL) MP CODE PUMP TEST CP LOG GL LOG
CATA SOURCE COMMENTS (72 SPACES)
WATER QUALITY FILE
PRIMARY KEY
STATION CODE LATITUDE LONGITUDE STATION ID MONTH CAT YEAR TIME
SECONDARY KEY
STATION (SAMPLE) NAME COUNTY NO. 1 Y M D
PARAMETERS
PARAMETERS PARAMETERS Discription Disc
STATION (SAMPLE) NAME **COUNTY NO. 1
PARAMETERS PARAMETERS Discrepance Color Discrepance Color Discrepance Di
PARAMETERS PARAMETERS O.O.O.I.O O.O.4.4.0 7.2.0.1.9 . . .
PARAMETERS PARAMETERS O.O.O.I.O
PARAMETERS PARAMETERS D.O.O.O.I.O
PARAMETERS PARAMETERS TEMPERATURE (*C) O.O.4,4,0 Calcium O.O.4,4,5 CARBONATE O.O.9,1,5 O.O.4,4,5 O.O.9,2,5 FUNDAMENTAL EVEL (LSD) PRON O.O.9,2,5 FUNDAMENTAL EVEL (LSD) PRON O.O.9,2,5 FUNDAMENTAL EVEL (LSD) PRON FUNDAMENTAL EVEL (LSD) PALORIDE O.O.9,3,0 FUNDAMENTAL EVEL (LSD) PALORIDE O.O.9,3,0 FUNDAMENTAL EVEL (LSD) PALORIDE O.O.9,3,0 O.O.9,3,0 FUNDAMENTAL EVEL (LSD) PALORIDE O.O.9,4,0 O.O.9,5,0 FUNDAMENTAL EVEL (LSD) PALORIDE O.O.9,4,0 O.O.9,5,0 O.O.9,5,0 O.O.9,5,0 O.O.9,5,0 O.O.9,5,0 FUNDAMENTAL EVEL (LSD) PALORIDE O.O.9,5,0 O.O
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(Reduced from 8-1/2" X 14" Originals.)

APPENDIX D CONTRACTUAL AND COOPERATIVE AGREEMENTS

COOPERATIVE AGREEMENT BETWEEN ST. JOHNS RIVER WATER MANAGEMENT DISTRICT AND BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS

AGREEMENT

Between The

St. Johns River Water Management District

And The

Brevard County Board of County Commissioners

THIS AGREEMENT is entered into on the 13th day of January,

1982, by and between the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, hereinafter the "DISTRICT", and the BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS,
hereinafter "BREVARD COUNTY".

WHEREAS, the waters of the state are among its basic resources and it has been declared to be the policy of the legislature to promote the conservation, development, and proper utilization of surface and ground water, and

WHEREAS, a hydrologically isolated lens of fresh water has been identified in the Floridan aquifer in the South Beaches area of Brevard County, and that some of this fresh water is currently being lost through free flowing wells, and

WHEREAS, proper management of this freshwater resource is necessary
to protect the water users' health, safety and welfare and to extend the life
of the potable water supply, and

WHEREAS, BREVARD COUNTY, based on information from its "208" program and other water resources activities, has declared this waste of fresh water to be an emergency, and

WHEREAS, BREVARD COUNTY has received under separate agreement a commitment from a private interest to fund a separable portion of this problem, and

WHEREAS, BREVARD COUNTY has requested the DISTRICT to participate in a cooperative water resource conservation and protection program, and

WHEREAS, the DISTRICT has been established to manage water resources within its geographical area.

IN CONSIDERATION of these premises and the mutual covenants and agreements hereinafter contained, it is agreed as follows:

1) THE DISTRICT

- A) Shall obligate up to a sum of Twenty-Five Thousand Dollars (\$25,000) for services related to the plugging of the uncontrolled free flowing wells identified in Exhibit A.
- B) Shall be responsible for administering and letting of bids and administration of subcontract work for the plugging of uncontrolled free flowing wells in accordance with DISTRICT policy and up to a maximum of Fifty Thousand Dollars (\$50,000). The DISTRICT shall provide BREVARD COUNTY with a copy of the bid specification for BREVARD COUNTY'S review and approval prior to notice for bids. Notice for bids shall be published in a newspaper of general circulation in Brevard County.
- c) Will invoice BREVARD COUNTY upon execution of each contract.

 as they are awarded for one-half (1/2) of the amount obligated for said service to be performed. The DISTRICT shall certify that the work has been satisfactorily completed by copy to Brevard of a paid bill to the contractor.
- D) Shall provide the necessary professional and technical support to properly address all aspects of this program.
- E) DISTRICT shall provide to BREVARD COUNTY monthly progress report of work contracted.

2) BREVARD COUNTY

- A) Shall obligate up to a sum of Twenty-Five Thousand Dollars (\$25,000) for services relating to the plugging of uncontrolled free flowing wells identified in Exhibit A and shall share expenses on a 50% basis with the DISTRICT for the services described in paragraph 1B above.
- B) Will pay the DISTRICT for work invoiced by the DISTRICT up to a maximum of \$25,000.00 for work described in paragraph 1B above.
- c) Shall be responsible for obtaining the consent of owner to plug free flowing wells and licenses for performing the above mentioned work.
 - 3) DISTRICT and BREVARD COUNTY shall prepare a final report.
- 4) This agreement shall be effective upon the execution thereof and shall continue until September 30, 1982, except that performance of a contract executed prior to September 30, 1982, shall continue beyond that date and performance under Paragraph 5 shall continue beyond that date.
- 5) The DISTRICT agrees to indemnify and hold harmless BREVARD of and BREVARD agrees to indemnify and hold DISTRICT harmless of any liability

arising out of negligent acts of the DISTRICT and BREVARD, respectively, performed under this agreement.

IN WITNESS WHEREOF, the parties hereto have duly executed this agreement on the date and year ascribed above.

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

By: Chairman & Figure.

ATTEST:

Che Wend

Legal Form Content Approved

BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS

Bv:

/Wickham, Chairman

1/14/8:

ATTEST:

D-3

COOPERATIVE AGREEMENT BETWEEN
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
AND THE CITY OF DAYTONA BEACH

AGREEMENT

BETWEEN

THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT AND

THE CITY OF DAYTONA BEACH

WHEREAS, the waters of the state are among its basic resources and it has been declared to be the policy of the Legislature to promote the conservation, development, and proper utilization of surface and ground water, and

whereas, the Legislature has directed the water management districts of the state in Section 373.207 (8)(a), <u>Florida</u>

<u>Statutes</u>, to locate all known abandoned artesian wells and insure that each such well is plugged on or before January 1, 1992, and

WHEREAS, proper management of artesian wells is necessary to protect the public health, safety and welfare and to extend the life of the ground water supplies, and

WHEREAS, the DISTRICT has been established to manage water resources within its geographical area, and

WHEREAS, the CITY and the DISTRICT desire to jointly fund the plugging of an uncontrolled artesian well located in the City of Daytona Beach, and

WHEREAS, it has been determined that the well adversely impacts the local water resource, and

WHEREAS, the CITY and the DISTRICT intend to have the plugging of the uncontrolled artesian well performed by a qualified independent contractor,

NOW THEREFORE, in consideration of the foregoing premises, which are part of the consideration herein, the parties hereto do mutually agree as follows:

1. The DISTRICT will:

- A. Obligate for the purposes of this Agreement monies (not to exceed \$10,000.00) to provide independent contractual services. Said funds are budgeted in Fiscal Year 1984/85 in Project No. 20-018-02;
- B. Secure the services of a qualified water well contractor;
- C. Enter into a contract with the water well contractor and then administer the contract as follows:
 - control sub-contracting of services by the contractor who is a party to a contract with the DISTRICT requiring that no sub-contract can be entered into unless the DISTRICT first approves the sub-contractor as being qualified;
 - do such other things as are necessary to administer the contract;
- D. Provide the professional and technical support to the water well contractor that enters into a contract with the DISTRICT that is necessary to properly address all aspects of the purposes of the Agreement;
- E. Provide a completion report to the CITY regarding the progress of the work.
- 2. The CITY will obligate for the purposes of the Agreement monies (not to exceed \$5,000.00) to provide the necessary materials (i.e. cement and grout materials) needed to complete the plugging of the well.
- 3. This Agreement shall be effective upon the execution thereof and shall continue until January 1, 1986, except that performance of the contract contemplated herein that is not performed prior to January 1, 1986, shall be performed beyond that date and performance under Paragraph 4 shall continue beyond that date.
- 4. The DISTRICT agrees to indemnify and hold harmless the CITY for any tort liability that may be imposed on the CITY due to the action or inaction of the DISTRICT while executing its responsibilities under this Agreement, and the CITY agrees to indemnify and hold the DISTRICT harmless for any tort liability that may be imposed on the DISTRICT due to the action or inaction of the CITY while executing its responsibilities under this Agreement.

GENERAL CONTRACTUAL AGREEMENT
BETWEEN ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
AND MERIDITH CORPORATION

CONTRACT AGREEMENT

THIS AGREEMENT made and entered into this 27 day of
December , in the year 1984, by and between the ST.
JOHNS RIVER WATER MANAGEMENT DISTRICT, as party of the First
part, hereinafter called the Owner, and Meridith Corporation
, party of the Second Part,
hereinafter called the Contractor.

WITNESSETH, that the said Contractor, for and in consideration of the payments hereinafter specified and agreed to be made by the Owner, hereby covenants and agrees to furnish and deliver all the materials, to do and perform all the work and labor required to be furnished, delivered, done and performed for the plugging of uncontrolled artesian wells in Brevard and Indian River counties, Florida in accordance with the proposal herein, and to complete the work in entire conformity with the Contract Documents and Specifications for Well Plugging Program in Brevard County and Indian River County, Bid No. 85-02, on file at the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, which are duly approved and which said Contract Documents and Specifications are hereby made part of this Agreement as fully and with the same effect as if the same had been set forth at length in the body of this Agreement.

The Contractor shall complete the Work within one year of the date of the Notice to Proceed. Time is of the essence of this Contract Agreement.

The Contractor agrees to make payment to subcontractors of all proper charges for labor and materials required in the aforementioned work, and to defend, indemnify, and save harmless the Owner and all of its officers, agents and servants, and each and every one of them, against and from all damages to which the said Owner or any of their officers, agents, employees or servants may be put, by reason of injury to the persons or property of others resulting from the performance of said Work, or through the negligence of the Contractor, or through any improper or defective machinery, implements or appliances used by the Contractor in the aforesaid Work or through any act or omission on the part of the Contractor, his agents, employees, servants or any other person or entity for whom the Contractor is responsible.

If the Contractor shall fail to comply with any of the terms, conditions, provisions, or stipulations of this Contract, according to the true intent and meaning thereof, then the Owner may avail himself of any or all remedies provided in the Contract

and shall have the right and power to proceed in accordance with the provisions thereof.

It is also agreed and understood that the acceptance by the Contractor of final payment by the Owner shall be considered as a release in full of all claims of Contractor against the Owner or any of its members, agents and employees arising out of, or by reason of, the work done and materials furnished under this Contract.

In consideration of the premises, the Owner will pay to the Contractor for the said Work, when fully completed, the Total Bid Price of \$82.00 per hour rig time, and \$60.00 per hour standby time, subject to such additions and deductions as may be provided for in the Contract Documents.

Payments shall be made upon the terms set forth in the Contract Documents, in a total amount not to exceed \$30,000.

Unless otherwise declared in an addendum hereto, Contractor warrants to Owner that no member, officer or employee of the Owner has any material interest (as defined in Section 112.312(1), Florida Statutes), either directly or indirectly, in the business of the Contractor to be conducted hereunder, and that no such person shall have any such interest at any time during the term hereof.

IN WITNESS WHEREOF, the said ST. JOHNS RIVER WATER MANAGEMENT DISTRICT has caused this Contract to be executed in its name by its Chairman, attested by its Secretary, and has caused its seal to be hereto attached; and the Contractor has caused this Contract to be executed in its name by its duly authorized representatives, and, if appropriate, has caused the seal of the corporation to be hereunto attached, all on the day and year first above written.

Signed, sealed and delivered in the presence of:

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

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direx a line

_Chairman

TAttest:

Lyphe C. Capehart

(SEAL)

(CORPORATE CONTRACTOR) Meridith Corporation Senior Vice _ President Attest: Secretary (NON-CORPORATE CONTRACTOR) (SEAL) (SEAL) (SEAL) (SEAL)

APPROVED AS TO FORM AND LEGALITY

VANCE W. KIDDER

(CORPORATE SEAL)

As to Party of the Second Part

Staff Attorney