

**APT ANALYSIS**

**SITE:** Baynton Beach, Jarvis Property TS-1  
 Section \_\_\_\_\_ Township \_\_\_\_\_ S Range \_\_\_\_\_ E

**REPORT:** \_\_\_\_\_  
 \_\_\_\_\_

**GEOLOGIC DATA:** pg. \_\_\_\_\_, \_\_\_\_\_

**WELL NUMBER OF WELL DESCRIBED:** \_\_\_\_\_

DEPTH (LSD)	LITHOLOGY
0-60	Sand
60-160	sand shell cemented sandy rock
160-237	gray sandy rock with shells

Producing zone interval: \_\_\_\_\_ (lsd) \_\_\_\_\_ (msl)

Aquifer name: \_\_\_\_\_

Static Water Level at the site is approximately \_\_\_\_\_ ft. msl.

**WELL DESCRIPTIONS:**

Well	Diam. (in)	Total Depth	Cased Depth	Scr/Open Intervl	Slot Size	Radius
TS-1TW	16	237	202	scr		Pump
TS-10#1	2	88	82	scr		25
TS-10#2	2	215	?	scr		75

**INFLUENCING FACTORS:**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

APT: pg. \_\_\_\_\_

Started: 800 hr 7/28/76

Duration: 8 hrs

Discharge: 500 gpm

Recovery: 30 min

Comments:

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

CONSULTANT'S ANALYSIS: pg. \_\_\_\_\_

Method: \_\_\_\_\_

Results:

Well	Transmissivity (GPD/FT)	S or Sy	Leakance ( )
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Comments: \_\_\_\_\_

Method: \_\_\_\_\_

Results:

Well	Transmissivity (GPD/FT)	S or Sy	Leakance ( )
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Comments: \_\_\_\_\_

Method: \_\_\_\_\_

Results:

Well	Transmissivity (GPD/FT)	S or Sy	Leakance ( )
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

REANALYSIS:

Method: \_\_\_\_\_

Results:

Well	Transmissivity (GPD/FT)	S or Sy	Leakance ( )
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Comments: \_\_\_\_\_

Method: \_\_\_\_\_

Results:

Well	Transmissivity (GPD/FT)	S or Sy	Leakance ( )
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Comments: \_\_\_\_\_

RECOMMENDED VALUES:

Transmissivity (GPD/FT)	Specific Yield or Storage	Leakance
<u>98000</u>	<u>.016</u>	_____
_____	_____	_____

REFERENCES:

**APT ANALYSIS**

**SITE:** Boynton Beach TS-2

Section \_\_\_\_\_ Township \_\_\_\_\_ S Range \_\_\_\_\_ E

**REPORT:** \_\_\_\_\_

**GEOLOGIC DATA:** pg. \_\_\_\_\_

**WELL NUMBER OF WELL DESCRIBED:** \_\_\_\_\_

DEPTH (LSD)	LITHOLOGY
0-63	sand
63-68	sand and mud
68-150	sand shell poorly cons. sandy rock
150-190	sand and shell
190-230	gray sandy rock, shell, sand

Producing zone interval: \_\_\_\_\_ (lsd) \_\_\_\_\_ (msl)

Aquifer name: \_\_\_\_\_

Static Water Level at the site is approximately \_\_\_\_\_ ft. msl.

**WELL DESCRIPTIONS:**

Well	Diam. (in)	Total Depth	Cased Depth	Scr/Open Intervl	Slot Size	Radius
TS-2TN	6	231	205	SCR		pump
TS-20#1	2	88	82	SCR		25
TS-20#2	2	215	?	SCR		75

**INFLUENCING FACTORS:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

APT: pg. \_\_\_\_\_

Started: 759 hrs 8/10/1976

Duration: 8 hrs

Discharge: 500 gpm

Recovery: 30 mn

Comments:

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

CONSULTANT'S ANALYSIS: pg. \_\_\_\_\_

Method: \_\_\_\_\_

Results:

Well	Transmissivity (GPD/FT)	S or Sy	Leakance ( )
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Comments: \_\_\_\_\_

Method: \_\_\_\_\_

Results:

Well	Transmissivity (GPD/FT)	S or Sy	Leakance ( )
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Comments: \_\_\_\_\_

Method: \_\_\_\_\_

Results:

Well	Transmissivity (GPD/FT)	S or Sy	Leakance ( )
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

REANALYSIS:

Method: \_\_\_\_\_  
Results: \_\_\_\_\_

Well	Transmissivity (GPD/FT)	S or Sy	Leakance ( )
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Comments: \_\_\_\_\_

Method: \_\_\_\_\_  
Results: \_\_\_\_\_

Well	Transmissivity (GPD/FT)	S or Sy	Leakance ( )
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Comments: \_\_\_\_\_

RECOMMENDED VALUES:

Transmissivity (GPD/FT)	Specific Yield or Storage	Leakance
32,000	,019	_____
_____	_____	_____

REFERENCES:

## APT REANALYSIS

DRAFT

SITE: Boynton Beach, Jarvis Property

REPORT: Russell & Axon, "Hydrogeological Evaluation of Jarvis Property, Boynton Beach, Florida", December 1976.

DATE AUG 31 1987

GEOLOGIC DATA: pp. 3-4

Drilling logs are available for all test wells. Wells were drilled at two sites, TS-1 and TS-2, on the Jarvis property. Composite logs for each site are given below:

### Composite of Site TS-1

0'-60' sand  
 60'-160' sand, shell, cemented sandy rock (marl, 92'-93' in well O#1)  
 160'-237' gray sandy rock with shell

### Composite of Site TS-2

0'-63' sand (marl, 45'-57' in well O#1)  
 63'-68' sand and marl  
 68'-150' sand, shell, poorly cons. sandy rock (trace marl, 93'-98', in 6" test well; 92'-102' in well, O#1)  
 150'-190' sand and shell (w/marl, 172'-192' in TS-2)  
 190'-230' gray sandy rock, shell, sand (trace marl, 188'-198' in well O#2)

The lithologic sequence encountered in TS-1 wells was consistent except for the occurrence of a thin layer of marl found only in well O#1. There was more lithologic variance among the TS-2 wells. Marl was noted in all three TS-2 wells, but at different depths in different wells. There was more marl noted at TS-2 than at TS-1 and the gray sandy rock was encountered 30' deeper at TS-2 than at TS-1.

The consultant noted a relatively permeable shell and sandstone strata from 70-90 feet at both sites (this is not obvious in the drill logs).

The consultant also noted a higher permeability zone from 200'-230' at both sites.

Based on the nearest available data, the aquifer bottom is estimated at -340 feet NGVD.

Site elevation is about 15 to 20 feet NGVD.

### WELL DESCRIPTIONS:

<u>Well</u>	<u>Diam.</u> <u>(in)</u>	<u>Total</u> <u>Depth</u> <u>(ft)</u>	<u>Cased</u> <u>Depth</u> <u>(ft)</u>	<u>Screen</u> <u>/Open</u>	<u>r</u> <u>(ft)</u>
TS-1 TW	6	237	202	scr.	pump
TS-1 O#1	2	88	82	scr.	25
TS-1 O#2	2	215	?	scr.	75
TS-2 TW	6	231	205	scr.	pump
TS-2 O#1	2	88	82	scr.	25
TS-2 O#2	2	215	?	scr.	75

Depth to Water: 3.5' BG at TS-1; 7.0' BG at TS-2

The screened interval is not given for wells TS-1 O#2 and TS-2 O#2. Based on the other observation wells and background information in the text, assuming a screened interval of 210-215' seems reasonable.

**DRAFT**  
DATE AUG 31 1987

INFLUENCING FACTORS:

- 1) Production and observation wells are partially penetrating.
- 2) TS-1 is apparently located adjacent to canal E-4.

APT's: pp. 4

TS-1  
Start: 0800 hrs 7/28/76  
Discharge: 500 GPM into E-4 canal  
Duration: 8 hrs.  
Recovery: 30 min.

TS-2  
Start: 0759 hrs 8/10/76  
Discharge: 500 GPM to open ditch  
Duration: 8 hrs.  
Recovery: 30 min.

Comments:

- 1) No drawdowns were observed in the shallow well at site TS-2. Instead water levels increased 2" during the test, possibly from infiltration of discharge from the production well.
- 2) The shallow well at TS-1 initially showed a drawdown of 2 feet, but water levels increased to within .4 feet of the starting level by the end of the test. There is no apparent explanation for this.
- 3) Water levels were measured only to the nearest inch. This gives the drawdown curves a "stairstep" appearance. Time was measured to the nearest minute and the exact time pumping began is not given. Based on the drawdown plots, starting time appears to be one minute before the first drawdown measurement.

CONSULTANT'S ANALYSIS: pp. 5-7, Figures 2-5

Method: Hantush Modified Method and Jacob Modified Method

Results:

<u>Site</u>	<u>Avg. T</u> (GPD/FT)	<u>Avg. S</u>
Test Site 1	98,000	.016
Test Site 2	32,000	.019

Comments:

- 1) T and S values for individual wells and analysis method are not given.
- 2) Consultant notes that the effects of partial penetration, boundary influences, well inefficiencies, and pumping duration were considered in calculating the average T's and S's. The methods used to do this are not described.



REANALYSIS:

Method: Jacob

Results:

None. The data (used as described below) did not meet the conditions required for the Jacob analysis method; in all cases,  $u$  was much greater than .01.

Comments:

- 1) Because the time-drawdown plots were poor, two lines were drawn through each semi-log plot. One was a "best fit" line and one was from the initial water level to maximum drawdown.
- 2) The data was used as reported. No corrections were made for partial penetration or canal effects.

RECOMMENDED VALUES:

None. There are no suitable time-drawdown or recovery analysis methods. The limitations of the data are too great.

REFERENCES:

Kruseman, G. P. and N. A. DeRidder, 1983. Analysis and Evaluation of Pumping Test Data. International Institute for Land Reclamation and Improvement, The Netherlands.

Miller, W. L., 1986. Lithology and Base of the Surficial Aquifer System, Palm Beach County, Florida. USGS Water Resources Investigation Report 86-4067.

**DRAFT**  
DATE **AUG 31 1987**