APT ANALYSIS

SITE: North Martin County Wellfield 742650 1058500

Section 20 Township 37 S Range 41 E

REPORT: No. Martin County Wellfield Wetlands Impact Study Aquifer Performance Test NOV. 1989 Jm Montgomery

GEOLOGIC DATA: pg. 3-1, Appendix A Phase I Report - Data Review & Assessment

WELL NUMBER OF WELL DESCRIBED: PW-7

DEPTH (LSD)	LITHOLOGY
0-10	sand, v. fine-med, silty, trace clay & organics, dk brn.
10-20	sand, v. fine, silty, light gray
20-30	clay, silty, dk brown w/organics
30-40	sand, v. fine - fine, silty, med gray, loose
40-60	sand, v. fine-med, silty, w/shell fragm., gray
60-80	shells, white & dk gray, trace sand, silt
80-83	shell fragm. & weathered calcarenite loose, interbedded
83-100	interbedded w/ clay, lt gray trace, sand fine
100-112	sand, v. fine-med, silty, gray
112-118	sand, v. fine-coarse, w/shell fragm, small, trace silt gray
118-136	sand, fine-med, & shell fragm, fine, trace silt, trace calcaren
136-138	calcarenite, hard, gray
138-150	sand, v. fine, trace shell frags., silt, loose, gray, trace calcarenite, thinly bedded

Producing zone interval: 60-83, 112-140 (lsd) _____ (msl)

Aquifer name: _____

Static Water Level at the site is approximately 4.4 ft. msl.

WELL DESCRIPTIONS:

Well	Diam. (in)	Total Depth	Cased Depth	Scr/Open Interval	Slot Size	Radius	Max Drawdown
PW-7	8	120	71	71-120		0	
PZ136I	2	50	45	45-50			
PZ136D	2	110	105	105-110			7.29
PZ87I	2	50	45	45-50			4.44
PZ87D	2	110	105	105-110			9.69
PZ36I	2	50	45	45-50			5.22
PZ36D	2	110	105	105-110			15.8

INFLUENCING FACTORS:

APT: pg. 5-1

Started: 10/5/89

Duration: 4330 min = 72 hours

Discharge: 349 gpm

Recovery: 170 min ≈ 3 hours

Comments:

1) During initial 15 minutes, discharge fluctuated from 295-405 gpm

2) Wells in the wetland area both above & below the hardpan were dry.

3)

CONSULTANT'S ANALYSIS: pg. 5-5

Method: Hantush

Results: day^{-1} calcs by C. Bevier

Well	Transmissivity (GPD/FT)	S or Sy	K'/b' Leakance (sec^{-1})	K'/b' (gpd/ft^3)
PZ-136D	22,000	.0003	4.3×10^{-8} 3.72×10^{-3}/day	.028
PZ-87D	19,500	.0003	4.8×10^{-8} .00415/d	.031
PZ-36D	10,000	.0002	3.2×10^{-7} .03/d	.210

Comments:

Method: Walton

Results:

Well	Transmissivity (GPD/FT)	S or Sy	K'/b' Leakance (sec^{-1})	K'/b' (gpd/ft^3)
PZ-136D	19,000	.0004	6.5×10^{-8} .0056/d	.042
PZ-87D	14,800	.0003	1.9×10^{-7} .0164/d	.078
PZ-36D	9,500	.0003	4.6×10^{-7} .0397/d	.30

Comments:

Method: Distance Drawdown (JACOB)

Results:

Well	Transmissivity (GPD/FT)	S or Sy	Leakance ( )
PZ136, 87, 36 D	16,500	.0004	

Comments:

REANALYSIS:

Method: Neuman

Results:

Well	Transmissivity (GPD/FT)	S or Sy	Leakance ( )
PZ-136D	Early 16,712 Late 19,386	3.5×10^{-4}	
PZ-87D	Early 16,888 Late 11,851	2.4×10^{-4}	
PZ-36D	Early 7,736 Late 16,808	2.2×10^{-4}	

Comments: Analyzed by E. Hopkins

Method:

Results:

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

Comments:

RECOMMENDED VALUES:

Transmissivity (GPD/FT)	Specific Yield or Storage	Leakance

REFERENCES: