Results of the ECUA #8 Constant Rate Aquifer Test Sand-and-Gravel Aquifer, Escambia County Florida

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Christopher J. Richards and Catherine M. Murray Northwest Florida Water Management District

INTRODUCTION

After PCE was detected in five downtown Pensacola municipal supply wells in June, 1986, NWFWMD staff conducted an aquifer performance test in order to determine hydraulic properties of the Sand-and-Gravel Aquifer within this downtown area. On October 15, 1986, a two-day constant discharge test was begun. ECUA supply well #8 was pumped at an average discharge rate of 448 gallons per minute (gal/min). Drawdown levels, measured to 0.01 feet, were recorded in nine monitor and supply wells penetrating the main producing zone of the aquifer. Water levels were also monitored in 12 wells penetrating the surficial zone of the Sand-and-Gravel Aquifer. The aquifer test site and main producing zone well locations are depicted in Figure 1.

HYDROGEOLOGY

The Sand-and-Gravel Aquifer consists primarily of fine to medium quartz sand interbedded with varying amounts of clay. Throughout much of southern Escambia County, the Sand-and-Gravel Aquifer can be subdivided into three distinct zones based on hydraulic characteristics. The surficial zone is the uppermost portion of the Sand-and-Gravel Aquifer and consists of moderately well-sorted, medium sand. Ground water within this zone typically exists under unconfined conditions. Underlying the surficial zone is the low permeability zone which consists of poorly sorted sand and clay. The permeability of the low permeability zone is less than that of the overlying and underlying portions of the aquifer. It forms a leaky confining unit which serves to restrict the vertical movement of water within the aquifer. The lowermost zone within the aquifer is referred to as the main producing zone. This unit consists of moderate to well-sorted medium sand with minor amounts of interbedded clay. This is the most productive unit in the Sand-and-Gravel Aquifer and is the unit tapped by the major supply wells. Underlying the Sand-and-Gravel Aquifer is the Intermediate System which is a regionally extensive confining unit. Figure 2 shows a generalized cross-sectional view of the site hydrogeology.

Natural gamma ray and normal electric logs run were run on MW12D which is located immediately adjacent to the well used to stress the aquifer (ECUA #8). Natural gamma ray logs were also run on the deeper monitor wells constructed as part of the contamination investigation. The logs show the top of the low permeability zone and the top of the main producing zone. These logs are shown in Figure 3.

The thickness of the main producing zone and top of the underlying Intermediate System confining unit were established based on data from wells and borings which fully penetrate the Sand-and-Gravel Aquifer. This includes information regarding the construction of the ECUA production wells, and available driller and geophysical logs from borings located in the general vicinity of the test site.

At the ECUA #8 well the main producing zone is estimated to be 142 ft thick, extending from 98 ft to 240 ft below lsd. The low permeability zone consists of the interval from 53 ft to 98 ft below lsd. The

surficial zone includes the saturated sediments above the low permeability zone. The elevation of the well site is approximately 35 ft above mean sea level (msl).

AQUIFER TEST

ECUA #8 was used as the withdrawal well for this constant discharge test. It is a 26-inch diameter public supply well completed in the middle and lower portion of the main producing zone. This well was screened from 140 ft to 240 ft below lsd. Nine main producing zone observation wells were available for the test. The screened interval and radial distance of the main producing zone observation wells and the ECUA #8 are shown in Figure 2. Static water levels in these wells just prior to the start of the test ranged from approximately 15 to 26 ft msl. Six of the main producing zone observation well sites also had surficial zone wells. Prior to the start of the test the head difference between the six pairs of observation wells are provided in the Table 1. Addition information regarding these wells is included in the appendix.

Well Names	Head difference; prior to start of test
(main prod zone / surficial zone	(surficial zone – main prod zone)
MW1D / MW1S	5.55 ft
MW2D / MW2S	4.09 ft
MW3D / MW3S	4.39 ft
MW4D / MW4S	1.29 ft
MW5D / MW5S	2.22 ft
MW12D / MW12S	2.25 ft

Table 1. Head difference between the surficial zone and the main producing zone.

The aquifer performance test was initiated on October 15, 1986. District personnel monitored the discharge and verified a constant rate of 448 gal/min for the duration of the test. District personnel also measured drawdown in all wells. Mechanical float type continuous recorders were installed in several wells. Steel tapes were used in the remainder of the observation wells and were also used to verify the performance of the recorders. Ground water was discharged the ECUA sanitary sewer adjacent to the pump house. The duration of the test was roughly 48 hours (2878 minutes). The static water level and the change in water level during the test are provided in the Table 2.

Table 2. Summary of the water level response to the aquifer test.

Well name	Aquifer unit	Static water level	Water level drawdown (ft)
		(ft msl)	(negative indicates
			aquifer recovery)
MW1D	main producing zone	20.39	1.67
MW2D	main producing zone	25.32	0.26
MW3D	main producing zone	17.78	2.51
MW4D	main producing zone	15.50	2.45
MW5D	main producing zone	17.67	1.10
MW12D	main producing zone	17.25	5.33
ECUA #6	main producing zone	14.99 *	2.06
ECUA #8	main producing zone	17.09 *	14.25

ECUA #9	main producing zone	26.29 *	0.53
ECUA EAST PLANT	main producing zone	17.76 *	0.45
MW1S	surficial zone	25.94	0.34
MW2S	surficial zone	29.41	-0.05
MW3S	surficial zone	22.17	-0.06
MW4S	surficial zone	16.79	-0.04
MW5S	surficial zone	19.89	0.01
MW6S	surficial zone	23.57	-0.07
MW7S	surficial zone	22.60	-0.06
MW8S	surficial zone	22.41	-0.05
MW9S	surficial zone	23.34	-0.05
MW10S	surficial zone	23.24	-0.06
MW11S	surficial zone	25.51	0.11
MW12S	surficial zone	19.51	-0.07

* estimated: reference point elevation not surveyed

TEST ANALYSIS

The aquifer test data were analyzed using AquiferWin32 software which was developed by Environmental Simulations, Inc. Drawdown data from the observation wells were compared to type curves generated by an analytical model which was consistent with the test procedures and the conceptualization of the Sand-and-Gravel Aquifer as a leaky confined aquifer. Type curves were generated for numerous combinations of parameters in order to assess and obtain the combination of parameters which provided the best match with the observed data.

The nine main producing zone observation wells were analyzed using the Hantush (1964) analytical model. The Hantush (1964) solution simulates the response to pumping an aquifer overlain by a leaky confining unit which is in turn overlain by a constant head source bed. The model also incorporates the effect of partially penetrating wells and variable vertical to horizontal anisotropy ratios (K_z/K_r). In addition, the model assumes:

-well discharge is constant
-well is of infinitesimal diameter
-no release of water from storage in the confining bed
-flow of water through the confining unit is vertical
-the initial potentiometric surface of the aquifer and the water table are horizontal and extend infinitely in the radial direction

This analytical model is consistent with the conceptualization of the Sand-and-Gravel Aquifer as a leaky confined aquifer and is consistent with the procedures utilized in the test. As shown in Table 2, the head in surficial zone was essentially unchanged during the test. Most of the surficial zone wells exhibited a head rise of less than 0.07 ft during the test period while two wells record lowering of head during the test of 0.11 ft and 0.34 ft. The surficial zone well closest to the pumped well (MW12S) showed a 0.07 ft head increase during the 48 hour test. There was no consistent head trend or response within the surficial zone during the test. The surficial zone heads essentially remained constant throughout the two-day duration of the test pumping.

Although the analytical method included the effect of partially penetrating wells, the type curves representing the relative penetration of the various wells was generally insensitive to the anisotropy ratio. Therefore, an anisotropy ratio was not established by this analysis and was set to 0.10.

The analysis of an individual well was sensitive to the leakage factor (B), where B = $\sqrt{\frac{Tb'}{k'}}$. As B

increases, r/B decreases and the type curve becomes progressively more similar to a confined type curve. Comparison of data from a specific well to type curves representing progressively higher values of B (lower r/B) results in a higher value of transmissivity and a lower value for leakance. Although data from an individual observation well could be reasonably well fitted to a range of r/B type curves representing significantly different values of B, a single value of B was selected and used to generate the r/B type curves to which the nine observation wells were compared. A single value of B was applied based on the relative homogeneity of the aquifer across the test site as indicated by known yields from public supply wells and geophysical logs. The actual value of B was selected by considering the fit of all of the observation wells to their respective r/B type curve and assessing the reasonableness of the transmissivity and leakance values generated.

Figure 4 through Figure 12 shows the response of the individual observation wells and the r/B type curve applied to the analysis. Table 3 provides a summary of the test results. Figure 13 shows the observed water level drawdown and the predicted response generated using the parameter values specified in Table 3.

Well Name	Trans-	Storativity	Aquitard	r/B	r	В
	missivity	(dimension	leakance	(dimension-	(ft)	(ft)
	(ft^2/d)	-less)	k'/b' (1/d)	less)		
MW1D	8,700	0.00039	0.00111	0.433	1,212	2,800
MW2D	10,900	0.00094	0.00139	1.357	3,800	2,800
MW3D	8,700	0.00042	0.00110	0.238	667	2,800
MW4D	8,200	0.00035	0.00104	0.281	788	2,800
MW5D	7,500	0.00042	0.00096	0.762	2,133	2,800
MW12D	8,800	0.00056	0.00112	0.037	104	2,800
ECUA #6	8,300	0.00040	0.00106	0.346	968	2,800
ECUA #9	8,600	0.00133	0.00110	1.070	2,997	2,800
ECUA EAST PLANT	10,300	0.00057	0.00131	1.179	3,300	2,800
mean value	8,900	0.00060	0.00113			

Table 3. Summary of the ECUA #8 aquifer performance test results.

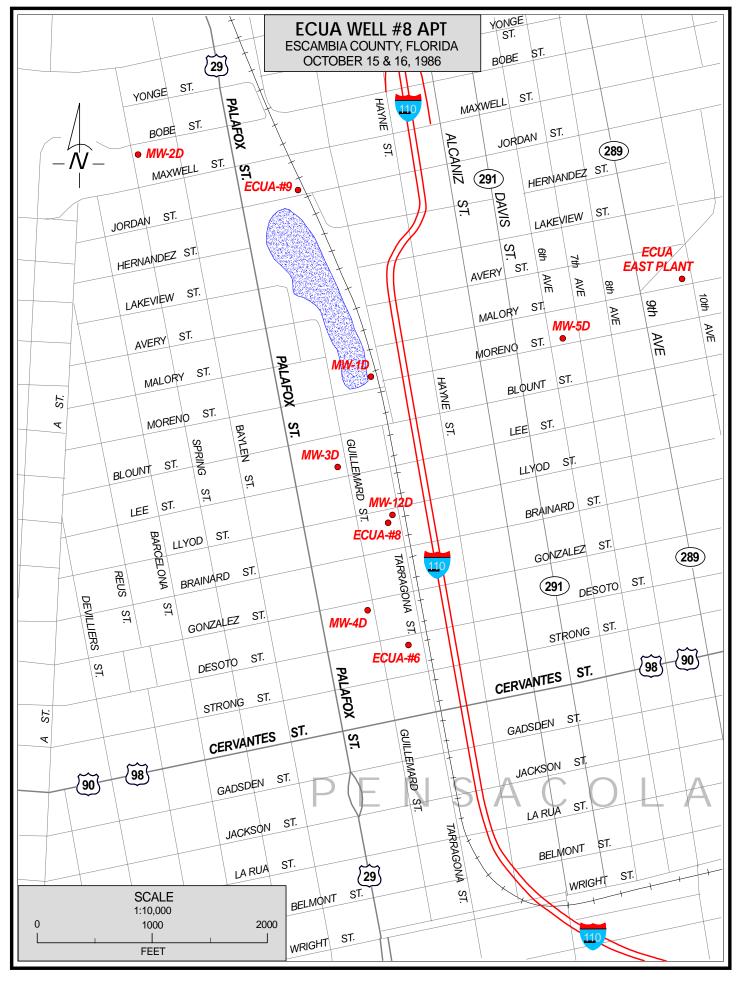


FIGURE 1. WELL LOCATIONS.

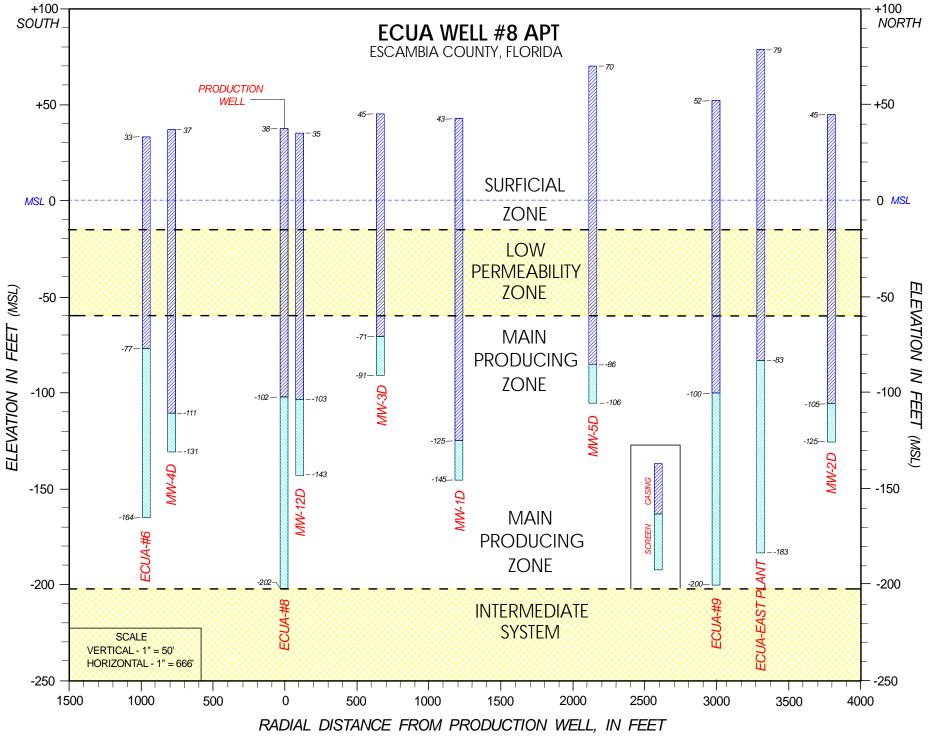


FIGURE 2. GENERALIZED SITE HYDROGEOLOGY.

GEOPHYSICAL LOGS - ECUA #8 APT SITE

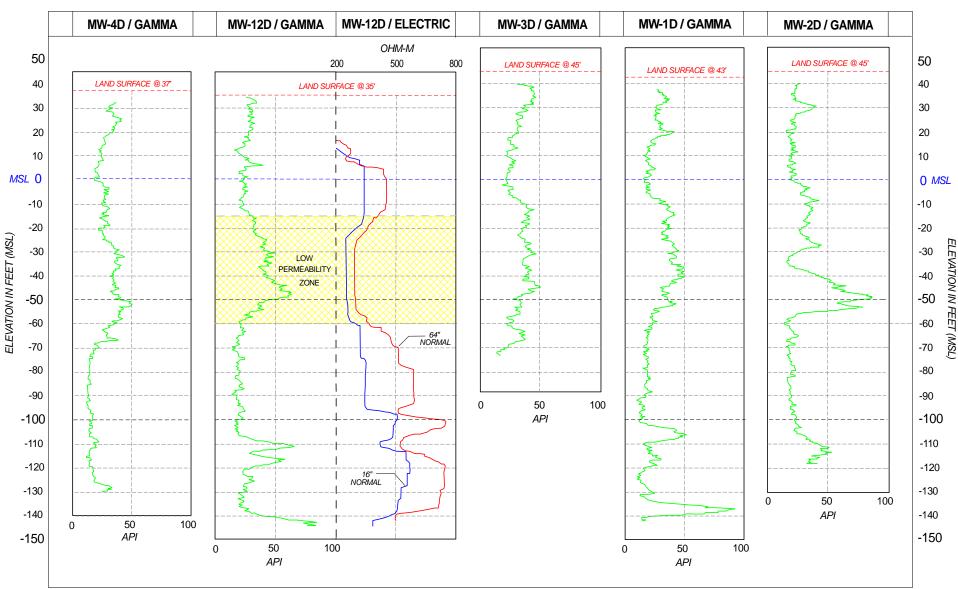
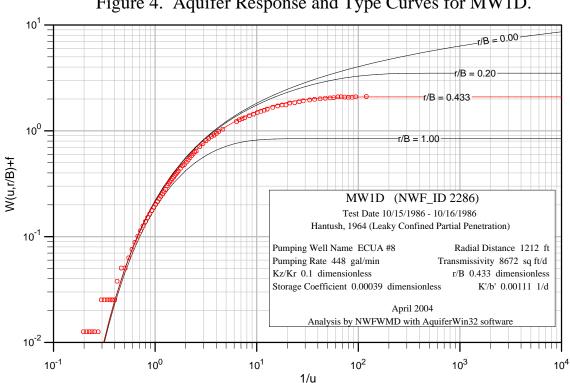


FIGURE 3. GEOPHYSICAL LOGS ACROSS THE ECUA #8 AQUIFER PERFORMANCE TEST SITE.

SOUTH

NORTH



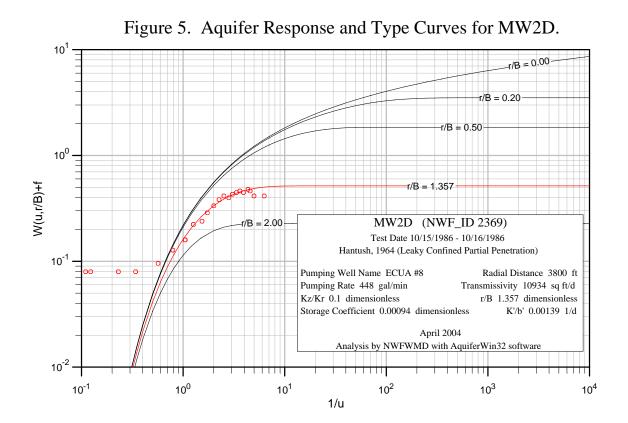
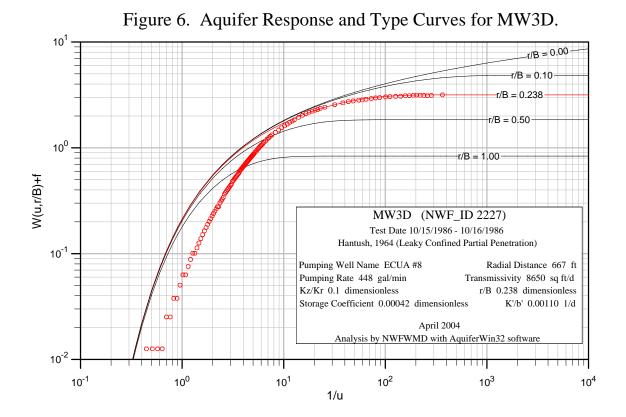
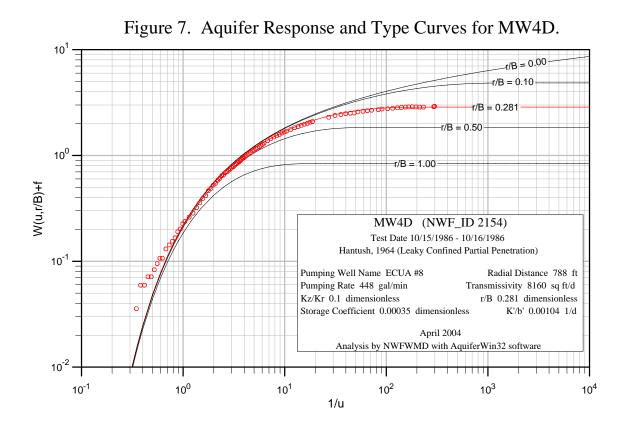
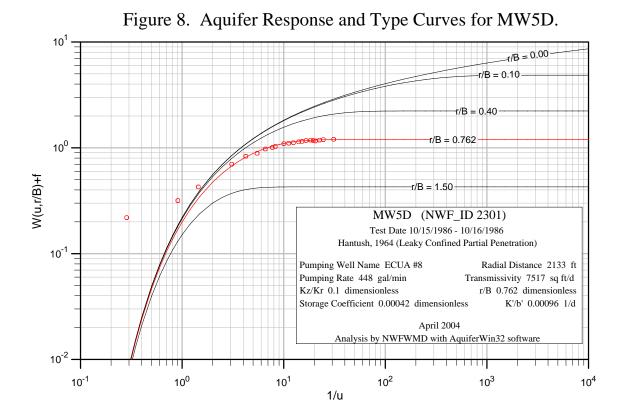
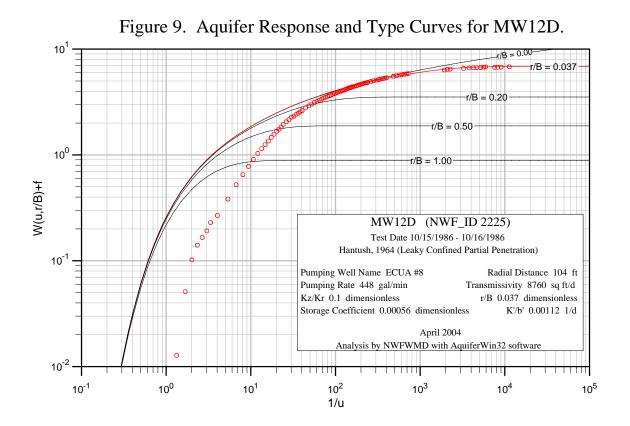


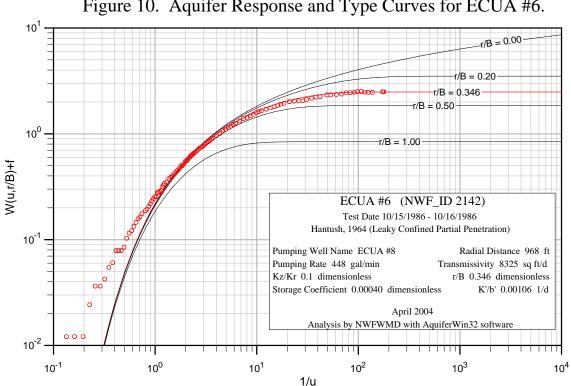
Figure 4. Aquifer Response and Type Curves for MW1D.











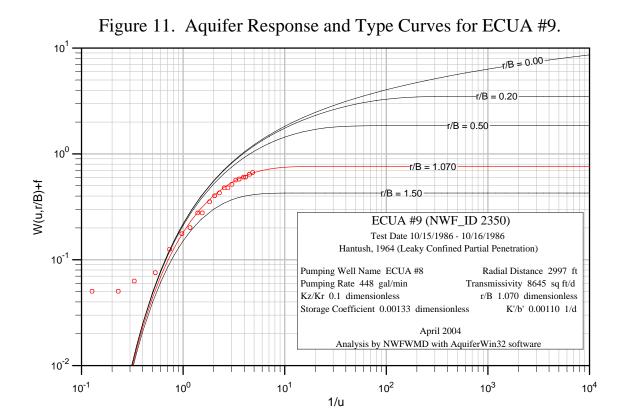


Figure 10. Aquifer Response and Type Curves for ECUA #6.

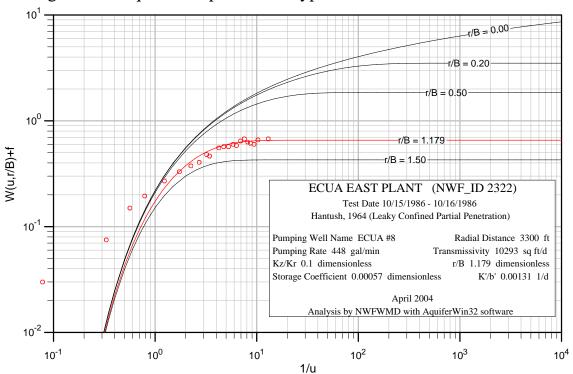
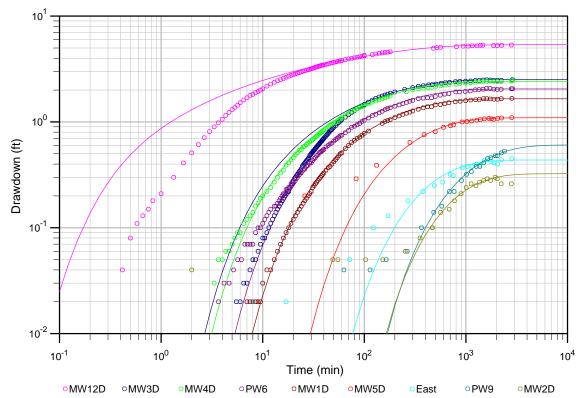


Figure 12. Aquifer Response and Type Curves for ECUA EAST PLANT.

Figure 13. Aquifer Response and Predicted Drawdown for all Observation Wells.



Test Date: 10/15/1986 – 10/16/1986	Test conducted by: NWFWMD
Production well: NWF_ID 2205	Observation well: NWF_ID 2286
Aquifer tested: Sand and Gravel	Production rate: 448 gal/min
Test duration: 2,838 min	Radial distance: 1,212 ft

MW1D (NWF_ID 2286)

ELAPSED	DRAWDOWN	ELAPSED	DRAWDOWN	ELAPSED	DRAWDOWN
TIME	(FT)	TIME	(FT)	TIME	(FT)
(MIN)		(MIN)		(MIN)	
4.66	0.01	32	0.25	240	1.18
5	0.01	33	0.26	260	1.21
5.33	0.01	34	0.27	280	1.24
5.66	0.01	35	0.28	300	1.27
6	0.01	36	0.29	340	1.32
6.5	0.01	37	0.30	380	1.36
7	0.02	38	0.31	420	1.39
7.5	0.02	39	0.32	460	1.39
8	0.02	40	0.33	500	1.45
8.5	0.02	42	0.35	560	1.46
9	0.02	44	0.37	620	1.49
9.5	0.02	46	0.38	680	1.52
10	0.03	48	0.40	785	1.55
11	0.03	50	0.42	878	1.57
12	0.04	52	0.44	996	1.59
13	0.05	54	0.46	1117	1.61
14	0.06	56	0.48	1248	1.62
15	0.07	58	0.50	1355	1.63
16	0.08	60	0.51	1490	1.66
17	0.09	65	0.56	1605	1.66
18	0.10	70	0.60	1738	1.65
19	0.11	75	0.64	1890	1.64
20	0.12	80	0.67	2050	1.64
21	0.13	85	0.70	2234	1.66
22	0.14	90	0.72	2838	1.67
23	0.15	95	0.75		
24	0.16	100	0.78		
25	0.17	110	0.82		
26	0.18	150	0.97		
27	0.19	160	1.01		
28	0.20	170	1.03		
29	0.21	180	1.05		
30	0.22	200	1.10		
31	0.24	220	1.14		

Test Date: 10/15/1986 – 10/16/1986	Test conducted by: NWFWMD
Production well: NWF_ID 2205	Observation well: NWF_ID 2369
Aquifer tested: Sand and Gravel	Production rate: 448 gal/min
Test duration: 2,805 min	Radial distance: 3,800 ft

MW2D (NWF_ID 2369)

ELAPSED	DRAWDOWN
TIME	(FT)
(MIN)	(11)
2	0.04
49	0.04
55	0.05
103	0.05
152	0.05
253	0.06
354	0.08
466	0.10
469	0.10
563	0.14
685	0.15
773	0.18
896	0.21
1007	0.24
1125	0.26
1257	0.25
1365	0.27
1496	0.28
1617	0.29
1754	0.28
1941	0.30
2036	0.29
2225	0.26
2805	0.26
2000	0.20

Test Date: 10/15/1986 – 10/16/1986	Test conducted by: NWFWMD
Production well: NWF_ID 2205	Observation well: NWF_ID 2227
Aquifer tested: Sand and Gravel	Production rate: 448 gal/min
Test duration: 2,870 min	Radial distance: 667 ft

MW3D (NWF_ID 2227)

ELAPSED	DRAWDOWN	ELAPSED	DRAWDOWN	ELAPSED	DRAWDOWN
TIME	(FT)	TIME	(FT)	TIME	(FT)
(MIN)		(MIN)		(MIN)	
3.5	0.01	20.5	0.29	37.5	0.65
4	0.01	21	0.30	38	0.66
4.5	0.01	21.5	0.31	38.5	0.67
5	0.01	22	0.32	39	0.68
5.5	0.02	22.5	0.33	39.5	0.69
6	0.02	23	0.34	40	0.70
6.5	0.03	23.5	0.35	41	0.72
7	0.03	24	0.36	42	0.74
7.5	0.04	24.5	0.38	43	0.76
8	0.05	25	0.39	44	0.78
8.5	0.05	25.5	0.40	45	0.80
9	0.06	26	0.41	46	0.82
9.5	0.07	26.5	0.42	47	0.84
10	0.08	27	0.43	48	0.85
10.5	0.08	27.5	0.44	49	0.87
11	0.09	28	0.45	50	0.89
11.5	0.10	28.5	0.46	52	0.92
12	0.11	29	0.48	54	0.96
12.5	0.12	29.5	0.49	56	0.99
13	0.13	30	0.50	58	1.02
13.5	0.14	30.5	0.51	60	1.05
14	0.15	31	0.52	65	1.11
14.5	0.16	31.5	0.53	70	1.17
15	0.17	32	0.54	75	1.23
15.5	0.18	32.5	0.55	80	1.28
16	0.19	33	0.56	85	1.33
16.5	0.20	33.5	0.57	90	1.38
17	0.21	34	0.58	95	1.42
17.5	0.22	34.5	0.59	100	1.46
18	0.22	35	0.60	110	1.54
18.5	0.24	35.5	0.61	120	1.61
19	0.25	36	0.62	130	1.67
19.5	0.26	36.5	0.63	140	1.72
20	0.27	37	0.64	150	1.76

MW3D (continued)

ELAPSED	DRAWDOWN
TIME	(FT)
(MIN)	
160	1.80
170	1.83
180	1.87
200	1.92
250	2.03
300	2.11
340	2.17
380	2.20
430	2.24
465	2.25
508	2.28
571	2.32
630	2.35
692	2.37
790	2.40
873	2.42
992	2.43
1112	2.44
1238	2.46
1352	2.47
1483	2.49
1600	2.50
1733	2.49
1886	2.48
2040	2.47
2229	2.48
2870	2.51

Test Date: 10/15/1986 – 10/16/1986	Test conducted by: NWFWMD
Production well: NWF_ID 2205	Observation well: NWF_ID 2154
Aquifer tested: Sand and Gravel	Production rate: 448 gal/min
Test duration: 2,865 min	Radial distance: 788 ft

MW4D (NWF_ID 2154)

ELAPSED	DRAWDOWN	ELAPSED	DRAWDOWN	ELAPSED	DRAWDOWN
TIME	(FT)	TIME	(FT)	TIME	(FT)
(MIN)		(MIN)		(MIN)	
3.33	0.03	28	0.63	140	1.62
3.66	0.05	29	0.65	150	1.66
4	0.05	30	0.66	160	1.69
4.33	0.06	31	0.68	170	1.73
4.66	0.06	32	0.70	180	1.76
5	0.07	33	0.72	260	1.93
5.33	0.08	34	0.73	300	2.01
5.66	0.09	35	0.75	343	2.05
6	0.09	36	0.77	383	2.09
6.5	0.11	37	0.79	425	2.11
7	0.12	38	0.80	462	2.12
7.5	0.13	39	0.82	504	2.17
8	0.14	40	0.84	566	2.20
8.5	0.16	42	0.87	624	2.23
9	0.17	44	0.90	687	2.25
9.5	0.19	46	0.93	800	2.28
10	0.20	48	0.95	870	2.31
11	0.22	50	0.98	989	2.33
12	0.24	52	0.99	1109	2.35
13	0.27	54	1.02	1235	2.37
14	0.30	56	1.05	1350	2.39
15	0.33	58	1.07	1479	2.41
16	0.35	60	1.10	1598	2.42
17	0.39	65	1.16	1729	2.43
18	0.41	70	1.21	1883	2.42
19	0.44	75	1.26	2039	2.41
20	0.46	80	1.29	2227	2.41
21	0.49	85	1.33	2810	2.43
22	0.51	90	1.37	2865	2.45
23	0.54	95	1.40		
24	0.55	100	1.43		
25	0.58	110	1.48		
26	0.59	120	1.54		
27	0.61	130	1.58		

Test Date: 10/15/1986 – 10/16/1986	Test conducted by: NWFWMD
Production well: NWF_ID 2205	Observation well: NWF_ID 2301
Aquifer tested: Sand and Gravel	Production rate: 448 gal/min
Test duration: 2,833 min	Radial distance: 2,133 ft

MW5D (NWF_ID 2301)

ELAPSED	DRAWDOWN
TIME	(FT)
(MIN)	
26	0.20
83	0.29
132	0.39
281	0.64
388	0.76
500	0.81
602	0.89
705	0.92
755	0.94
918	1.00
1023	1.01
1138	1.02
1282	1.04
1385	1.05
1518	1.07
1687	1.08
1783	1.07
1879	1.06
2055	1.08
2242	1.09
2833	1.10

Test Date: 10/15/1986 – 10/16/1986	Test conducted by: NWFWMD
Production well: NWF_ID 2205	Observation well: NWF_ID 2225
Aquifer tested: Sand and Gravel	Production rate: 448 gal/min
Test duration: 2,807 min	Radial distance: 104 ft

MW12D (NWF_ID 2225)

ELAPSED	DRAWDOWN	ELAPSED	DRAWDOWN	ELAPSED	DRAWDOWN
TIME	(FT)	TIME	(FT)	TIME	(FT)
(MIN)	(11)	(MIN)	(1 1)	(MIN)	(11)
0.33	0.01	14	2.45	56	3.75
0.416	0.04	15	2.51	58	3.77
0.5	0.08	16	2.58	60	3.80
0.58	0.11	17	2.64	65	3.88
0.66	0.13	18	2.70	70	3.94
0.75	0.15	19	2.75	75	3.99
0.83	0.18	20	2.80	80	4.04
1	0.21	21	2.84	85	4.09
1.33	0.30	22	2.88	90	4.13
1.66	0.41	23	2.93	95	4.16
2	0.51	24	2.97	100	4.20
2.33	0.61	25	3.01	120	4.33
2.66	0.71	26	3.05	130	4.39
3	0.81	27	3.09	140	4.45
3.33	0.90	28	3.12	150	4.49
3.66	0.98	29	3.14	160	4.53
4	1.06	30	3.18	170	4.56
4.33	1.15	31	3.21	180	4.60
4.66	1.23	32	3.24	480	4.97
5	1.31	33	3.28	519	5.04
5.33	1.37	34	3.31	562	5.06
5.66	1.44	35	3.34	808	5.15
6	1.52	36	3.37	940	5.20
6.5	1.61	37	3.39	1052	5.21
7	1.69	38	3.42	1160	5.24
7.5	1.78	39	3.44	1286	5.25
8	1.82	40	3.46	1391	5.29
8.5	1.89	42	3.50	1468	5.31
9	1.94	44	3.54	1874	5.26
9.5	2.00	46	3.58	2037	5.27
10	2.06	48	3.62	2248	5.29
11	2.18	50	3.66	2807	5.33
12	2.28	52	3.69		
13	2.37	54	3.72		

Test Date: 10/15/1986 – 10/16/1986	Test conducted by: NWFWMD
Production well: NWF_ID 2205	Observation well: NWF_ID 2142
Aquifer tested: Sand and Gravel	Production rate: 448 gal/min
Test duration: 2,878 min	Radial distance: 968 ft

ECUA #6 (NWF_ID 2142)

ELAPSED	DRAWDOWN	ELAPSED	DRAWDOWN	ELAPSED	DRAWDOWN
TIME	(FT)	TIME	(FT)	TIME	(FT)
(MIN)		(MIN)		(MIN)	~ /
2.167	0.01	19.5	0.27	75	0.89
2.607	0.01	20	0.28	80	0.91
3.167	0.01	21	0.29	85	0.94
3.67	0.02	22	0.31	90	0.97
4.167	0.03	23	0.32	95	1.01
4.67	0.03	24	0.33	100	1.04
5.17	0.04	25	0.35	110	1.09
5.67	0.05	26	0.36	120	1.15
6.18	0.05	27	0.38	130	1.18
6.67	0.06	28	0.39	140	1.22
7.08	0.07	29	0.41	150	1.26
7.5	0.07	30	0.41	160.5	1.31
8	0.08	31	0.43	170	1.34
8.5	0.09	32	0.45	180	1.36
9	0.10	33	0.46	200	1.41
9.5	0.10	34	0.48	220	1.45
10	0.11	35	0.49	240	1.49
10.5	0.12	36	0.51	260	1.53
11	0.13	37	0.52	280	1.57
11.5	0.14	38	0.53	300	1.60
12	0.15	39	0.54	340	1.66
13	0.16	40	0.55	380	1.68
13.5	0.16	42	0.58	420	1.69
14	0.17	44	0.60	460	1.69
14.5	0.18	46	0.62	500	1.74
15	0.19	48	0.63	560	1.79
15.5	0.20	50	0.66	620	1.83
16	0.21	52	0.68	682	1.85
16.5	0.21	54	0.70	795	1.92
17	0.23	56	0.72	866	1.92
17.5	0.23	58	0.74	985	1.94
18	0.24	60	0.75	1105	1.96
18.5	0.24	65	0.79	1230	2.01
19	0.26	70	0.83	1346	2.02

ECUA #6 (continued)

ELAPSED	DRAWDOWN
TIME	(FT)
(MIN)	
1476	2.04
1594	2.07
1724	2.07
1879	2.04
2035	2.03
2224	2.03
2804	2.06
2878	2.06

Test Date: 10/15/1986 – 10/16/1986	Test conducted by: NWFWMD
Production well: NWF_ID 2205	Observation well: NWF_ID 2350
Aquifer tested: Sand and Gravel	Production rate: 448 gal/min
Test duration: 2,397 min	Radial distance: 2,997 ft

ECUA #9 (NWF_ID 2350)

ELAPSED	DRAWDOWN
TIME	(FT)
(MIN)	(11)
8	0.02
63	0.02
114	0.04
164	0.04
264	0.05
366	0.10
483	0.14
580	0.16
690	0.22
765	0.22
904	0.28
1014	0.32
1131	0.34
1264	0.38
1371	0.38
1501	0.41
1635	0.45
1762	0.46
1950	0.48
2044	0.48
2230	0.51
2397	0.53

Test Date: 10/15/1986 – 10/16/1986	Test conducted by: NWFWMD
Production well: NWF_ID 2205	Observation well: NWF_ID 2322
Aquifer tested: Sand and Gravel	Production rate: 448 gal/min
Test duration: 2,826 min	Radial distance: 3,300 ft

ECUA EAST PLANT (NWF_ID 2322)

ELAPSED	DRAWDOWN
TIME	(FT)
(MIN)	
17	0.02
72	0.05
123	0.10
172	0.13
269	0.18
378	0.22
490	0.25
591	0.27
700	0.32
748	0.31
923	0.37
1030	0.38
1149	0.38
1273	0.40
1378	0.39
1510	0.43
1645	0.45
1774	0.42
1886	0.41
2052	0.40
2238	0.44
2826	0.45

APPENDIX:

ADDITIONAL WELL INFORMATION

Water Manager and Dist	NWFWMD Well Inventory Database Syste Site Schedule	em Printed:May 17, 2004 04:12
² Site Id 302523087125601	Site Type G	NWF ID 2142
site schedule Well Name ECUA #1-(#6)		State ID AAA6574
Owner ECUA		
Contact Person BILL ELLIS		Phone 904-476-5110
Street PO BOX 15311		
City PENSACOLA	State FL Zip 32514-0311	County Escambia
Latitude 302524.329	Longitude 871255.792 Datum NAD83	Loc Method Global Positioning Satellite (GPS)
Land Net S019T02SR30W	Loc Accuracy 0.3 < 3 meters	Loc Source
Elevation 33	Datum NGVD29 Metho	bo
Accuracy	Source	
Location Map PENSACOLA	GW Region Western Panhandle En	mhaymant Dagian
Site Use Withdrawal		Public Supply
Depth Of Well 240	Depth Of Casing 1	
MP Distance From LSD .83	Depth of Cashig 1	
Construction Data Source	Casing Material S	
Finish Screen	Driller License Number	
Date of Construction 01/01/1936		
Screen Length 90	Construction Method	nyuraunc Kotary
Screened Intervals 110 / 200		
Water Level -23	Measure Date	
WL Source	WL Method	
Hydrogeologic Units Main Producing Zo	one (S&G)	
Lift Turbine	Power	Electric
Horsepower 5	Pump Intake	
Normal Yield 2000	Spcap Discharge	
Spcap Source	Spcap Discharge Method	
Spcap Static Level	Spcap Pumping Level	
Spcap Drawdown	Hours Pumped	
Spcap		
Field Water Quality	Discharge	
Temperature 22 on 6/25/1957 @	-	
Specific Conductance 82.9999 on 7/27/19	78 @ 00:00 Chloride 9	9 on 7/7/1977 @ 00:00
Consumptive Use Permit 19830083	Construction Permit	
FL Geological Survey #	Abandonment Permit	
DEP Public Supply #		
Project #'s 74 61 24 36		
Geophysical Log #	Depth Logged	
Available LOG Data		
Visited By H_TRAPP	Date Visited 2	29/12/1970
Data Entered By	Date Entered	
Last Updated By T_PRATT	Last Updated 1	12/09/2002
Ambient Network		

MP = VENT LINE @ 1-INCH MALE NIPPLE, well used as observation well for 10/1986 ECUA #8 APT, well at radial distance of 968 ft.

Nater Manager D			NWFWMD Wel	ll Inventor Site Sched			Printed:May 17, 2004 04:12
2	Site Id	302535087125701		Site Ty	ype G		NWF ID 2205
w.w.F.w.w.	Well Name	ECUA #2-(#8)					State ID
site_seneduie		ECUA					
Co	ontact Person						Phone 904-476-5110
		PO BOX 15311					Those sor no crit
		PENSACOLA		State FL	Zip 32514	County E	gaamhia
	-	302533.34	Longitude 871257.		Datum NAD27	-	
			e				Global Positioning Satellite (GPS)
		S019T02SR30W		racy $0.3 < 3$		Loc Source	
	Elevation		Datum	NGVD29	Me	thod	
	Accuracy		So	urce			
L	ocation Map	PENSACOLA	G	W Region W	estern Panhandle	Embayment Regio	n
	Site Use	Properly Abandoned			Water Use	Public Supply	
De	epth Of Well	240			Depth Of Casing	140	
MP Distanc	e From LSD				Diameter	26	
Construction	Data Source	Reported			Casing Material	Steel	
	Finish	Screen		Drill	er License Number	1008	
Date of	Construction	01/01/1940		Co	onstruction Method	Hydraulic Rotary	ÿ
Se	creen Length	100					
Screen	ned Intervals	140 / 240					
	Water Level	-30			Measure Date		
	WL Source				WL Method	Reported	
Hydroge	eologic Units	Sand & Gravel					
	Lift	Centrifugal			Power		
	Horsepower	250			Pump Intake		
Ν	Normal Yield	2000			Spcap Discharge		
S	Spcap Source			Spcap	Discharge Method		
Spcap	Static Level			Sp	cap Pumping Level		
Spca	p Drawdown				Hours Pumped		
	Spcap	40					
Field Water	Quality				Discharge		
	-	23 on 6/25/1957 @ 0			pH		
Specific	Conductance	90 on 12/21/1978 @	00:00		Chloride	8.3 on 8/17/1977	@ 00:00
Consumptive	e Use Permit			C	Construction Permit		
FL Geologi	ical Survey #			Al	bandonment Permit	T200002576	
DEP Put	olic Supply #						
	Project #'s	61 24 36					
Geoph	nysical Log #				Depth Logged		
Availab	le LOG Data						
	Visited Rv	H_TRAPP			Date Visited	29/12/1970	
Data	a Entered By				Date Entered		
	Updated By				Last Updated		
	ient Network				r		

JOE KNIGHT; APRIL 18,1996 NOTE; PER ECUA MR. SMITH THIS WELL IS ABANDON

Water Manage	agen Distri	NWFWMD Well Inventory Database Sys Site Schedule	Printed:May 17, 2004 04:12
2 North	Site Id 302602087130701	Site Type G	NWF ID 2350
site schedule	Well Name ECUA #3-(#9)		State ID AAA6575
	Owner ECUA		
	Contact Person BILL ELLIS		Phone 850-476-5110
	Street PO BOX 15311		
	City PENSACOLA	State FL Zip 32514-0311	County Escambia
	Latitude 302602.597	Longitude 871306.851 Datum NAD83	Loc Method Global Positioning Satellite (GPS)
	Land Net S019T02SR30W	Loc Accuracy 0.3 < 3 meters	Loc Source
	Elevation 52	Datum NGVD29 Met	
	Accuracy	Source	
	Location Map PENSACOLA	GW Region Western Panhandle	Emhavment Region
	Site Use Properly Abandoned		Public Supply
	Depth Of Well 252	Depth Of Casing	
MP Dist	tance From LSD 2.42	Diameter	
	ion Data Source Reported	Casing Material	
Construct	Finish Screen	Driller License Number	
Date	of Construction 01/01/1945		
	Screen Length 100	Construction Method	Hydraulic Kotary
Sc	reened Intervals 152 / 252		
	Water Level -25.71	Measure Date	15/10/1986
	WL Source	WL Method	
Hydi	rogeologic Units Sand & Gravel		
	Lift Centrifugal	Power	Other
	Horsepower 250	Pump Intake	
	Normal Yield 2000	Spcap Discharge	
	Spcap Source	Spcap Discharge Method	
Sp	cap Static Level	Spcap Pumping Level	
S	pcap Drawdown 60	Hours Pumped	
	Spcap 33.33		
Field Wa	ter Quality	Discharge	
	Temperature 22 on 11/4/1970 @ 0	-	
Speci	fic Conductance 120 on 8/17/1977 @	00:00 Chloride	14 on 8/17/1977 @ 00:00
Consum	ptive Use Permit 19830083	Construction Permit	
FL Geo	logical Survey #	Abandonment Permit	T200002575
DEP	Public Supply #		
	Project #'s 61 24 36		
	cophysical Log #	Depth Logged	
Avai	ilable LOG Data		
	Visited By H_TRAPP	Date Visited	29/10/1970
]	Data Entered By	Date Entered	
I	Last Updated By T_PRATT	Last Updated	12/09/2002
A	mbient Network		

MP = VENT LINE @ 1.0-INCH MALE NIPPLE, well used as observation well for 10/1986 ECUA #8 APT, well at radial distance of 2,997 ft.

40 Water Monagen	I	NWFWMD Well II Site	ventory e Schedu	•	tem Printed:May 17, 2004 04:12	
District						
V.W.F.W.M.	302555087122702		Site Type	e G	NWF ID 2322	
site_seneduie	e ECUA #4-EAST PLA	NT			State ID AAA6573	
	r ECUA					
Contact Persor	BILL ELLIS				Phone 904-476-5110	
Stree	t PO BOX 15311					
City	PENSACOLA	Sta	te FL	Zip 32514-0311	County Escambia	
Latitude	e 302555.048	Longitude 871228.312	Da	ntum NAD83	Loc Method Global Positioning Satellite (GPS)
Land Ne	t S022T02SR30W	Loc Accuracy	0.3 < 3 m	eters	Loc Source	
Elevatior	n 79	Datum NG	VD29	Meth	nod	
Accuracy	7	Source				
Location Map	PENSACOLA	GW R	egion Wes	tern Panhandle H	Embayment Region	
Site Use	Properly Abandoned			Water Use	Public Supply	
Depth Of Wel	1 270		1	Depth Of Casing	151	
MP Distance From LSD	0 1.2			Diameter	18	
Construction Data Source	e Geologist			Casing Material	Steel	
Finish	Screen		Driller	License Number	1008	
Date of Construction	n 01/01/1947		Cons	struction Method	Hydraulic Rotary	
Screen Length	n 100					
Screened Intervals	162 / 262					
Water Leve	-67.86			Measure Date	14/04/1971	
WL Source	2			WL Method	Steel Tape	
Hydrogeologic Units	Sand & Gravel					
Lif	t Turbine			Power	Electric	
Horsepower	r 200			Pump Intake		
Normal Yield	1 2000			Spcap Discharge		
Spcap Source	2		Spcap D	ischarge Method		
Spcap Static Leve	1		Spcar	p Pumping Level		
Spcap Drawdowr				Hours Pumped		
Spcar	9 47.62					
Field Water Quality				Discharge		
-	e 22.8 on 7/12/1973 @			pH		
Specific Conductance	e 130 on 5/24/1979 @ 0	00:00		Chloride	13 on 8/15/1977 @ 00:00	
Consumptive Use Permi	t		Cor	struction Permit		
FL Geological Survey #	ŧ		Abar	ndonment Permit	T200002577	
DEP Public Supply #	ŧ					
Project #'s	s 61 36 46					
Geophysical Log #	ŧ 79			Depth Logged		
Available LOG Data	a Collar Caliper	Gamma				
Visited By	H_TRAPP			Date Visited	14/04/1971	
Data Entered By	7			Date Entered		
Last Updated By	T_PRATT			Last Updated	12/09/2002	
Ambient Network	5					

MP = VENT LINE @ 1.25-INCH MALE NIPPLE, well used as observation well for 10/1986 ECUa #8 APT, well at radial distance of 3,300 ft.

Water Manager 40 Manager 20 Manager 21	NWFWM	D Well Inventory Site Schedu		tem Printed:May 17, 2004 04:12
District				
V. W.F.W.W.	41087123001	Site Typ	be G	NWF ID 2265
Site_selicitute	JA PCE MW-10S			State ID
Owner DER	R			
Contact Person				Phone 850-488-3601
	BLAIR STONE ROAD			
•	LAHASSEE	State FL	Zip 32301	County Escambia
Latitude 3025	e		Datum NAD27	Loc Method Topographic Map
Land Net S02		be Accuracy $>= 60 \text{ m}$	eters	Loc Source NWFWMD
Elevation 43.7		Datum NGVD29	Meth	hod Survey
Accuracy < 0.1	feet	Source NWFV	VMD	
Location Map PEN	SACOLA	GW Region We	stern Panhandle I	Embayment Region
Site Use Mon	itor / OBS		Water Use	Monitor
Depth Of Well 37			Depth Of Casing	
MP Distance From LSD 1.35			Diameter	4
Construction Data Source Logs	3		Casing Material	PVC
Finish Scree	en	Drille	r License Number	2338
Date of Construction 01/09	9/1986	Cor	nstruction Method	Hydraulic Rotary
Screen Length				
Screened Intervals				
Water Level -21.0)9		Measure Date	17/09/1986
WL Source NWF	FWMD		WL Method	Steel Tape
Hydrogeologic Units Sand	l & Gravel			
Lift Othe	er		Power	Other
Horsepower			Pump Intake	
Normal Yield			Spcap Discharge	
Spcap Source		Spcap 1	Discharge Method	
Spcap Static Level		Spc	ap Pumping Level	
Spcap Drawdown			Hours Pumped	
Spcap				
Field Water Quality			Discharge	
Temperature			pH	
Specific Conductance			Chloride	
Consumptive Use Permit			onstruction Permit	
FL Geological Survey #		Ab	andonment Permit	
DEP Public Supply #				
Project #'s 25				
Geophysical Log # 76			Depth Logged	
Available LOG Data Gam	ima			
Visited By C.RI	ICHARDS		Date Visited	17/09/1986
Data Entered By			Date Entered	
Last Updated By C_R	ICHARDS		Last Updated	17/05/2004
Ambient Network			٤	

(c.richards 17 may 2004; Elevation top of casing surveyed by fdep = 45.05 ft)

Water Manager		NWFWMD Well Inventory Database Syst Site Schedule	Printed:May 17, 2004 04:12		
Site Id	302545087130601	Site Type G	NWF ID 2284		
Well Name	ECUA PCE MW-11		State ID		
site_senedule	DER	, ,			
Contact Person			Phone 850-488-3601		
			Phone 050-400-5001		
	2600 BLAIR STONE		~ ~		
-	TALLAHASSEE	State FL Zip 32301	County Escambia		
	302545	Longitude 871306 Datum NAD27	Loc Method Topographic Map		
Land Net	S026T02SR30W	Loc Accuracy >= 60 meters	Loc Source NWFWMD		
Elevation	48.66	Datum NGVD29 Meth	nod Survey		
Accuracy	< 0.1 feet	Source NWFWMD			
Location Map	PENSACOLA, FL.	GW Region Woodville Karst Reg	ion		
Site Use	Monitor / OBS	Water Use	Monitor		
Depth Of Well	52	Depth Of Casing			
MP Distance From LSD	1.2	Diameter	4		
Construction Data Source	Logs	Casing Material	PVC		
Finish	Screen	Driller License Number 2338			
Date of Construction	01/09/1986	Construction Method	Hydraulic Rotary		
Screen Length					
Screened Intervals	35 / 55				
Water Level		Measure Date			
WL Source	:	WL Method			
Hydrogeologic Units	Sand & Gravel				
Lif	Other	Power	Other		
Horsepower		Pump Intake			
Normal Yield	1	Spcap Discharge			
Spcap Source	:	Spcap Discharge Method			
Spcap Static Level		Spcap Pumping Level			
Spcap Drawdown		Hours Pumped			
Spcap	1				
Field Water Quality		Discharge			
Temperature	:	pH			
Specific Conductance	:	Chloride			
Consumptive Use Permit		Construction Permit			
FL Geological Survey #	:	Abandonment Permit			
DEP Public Supply #	÷				
Project #'s	25				
Geophysical Log #	77	Depth Logged			
Available LOG Data	Gamma				
Visited By	C.RICHARDS	Date Visited	17/09/1986		
Data Entered By		Date Entered			
-	C_RICHARDS	Last Updated	17/05/2004		
Ambient Network					

(c.richards 17 may 2004; Elevation top of casing surveyed by fdep = 49.86 ft)

A Water Manager	NWI	FWMD Well Inventory Database Sys Site Schedule	tem Printed:May 17, 2004 04:12
Distric			
N.W.F.W.M.	Id 302538087125901	Site Type G	NWF ID 2225
site_selicatile	me ECUA PCE MW-12D		State ID
Ow	ner DER		
Contact Pers	son		Phone 904/488/3601
Str	eet 2600 BLAIR STONE ROA	AD	
C	ity TALLAHASSEE	State FL Zip 32301	County Escambia
Latitu	Ide 302534 Long	gitude 871257 Datum NAD27	Loc Method Topographic Map
Land M	Net S023T02SR30W	Loc Accuracy >= 60 meters	Loc Source NWFWMD
Elevat	ion 35	Datum NGVD29 Met	hod Survey
Accura	acy 1 < 5 feet	Source NWFWMD	
Location M	lap PENSACOLA	GW Region Western Panhandle I	Embayment Region
Site U	Jse Monitor / OBS	Water Use	Monitor
Depth Of W	ell 178	Depth Of Casing	138
MP Distance From L	SD	Diameter	4
Construction Data Sou	rce Other Government	Casing Material	PVC
Fin	ish Screen	Driller License Number	2338
Date of Construct		Construction Method	Hydraulic Rotary
Screen Len			
Screened Interv	als 158 / 178 138 / 148		
Water Le	vel	Measure Date	
WL Sou	rce NWFWMD	WL Method	Steel Tape
Hydrogeologic Ur	nits Main Producing Zone (S&	G	
I	Lift Other	Power	Other
Horsepov	ver	Pump Intake	
Normal Yi	eld	Spcap Discharge	
Spcap Sou		Spcap Discharge Method	
Spcap Static Le		Spcap Pumping Level	
Spcap Drawdo		Hours Pumped	
Spo	cap		
Field Water Quality		Discharge	
Temperat		pH	
Specific Conductar		Chloride	
Consumptive Use Per		Construction Permit	
FL Geological Surve		Abandonment Permit	
DEP Public Suppl			
Project			
Geophysical Lo	-	Depth Logged	
Available LOG D	ata Electric Gamma		
Visited	By C_RICHARDS	Date Visited	18/09/1986
Data Entered	By	Date Entered	
Last Updated	By C_RICHARDS	Last Updated	17/05/2004
Ambient Netwo	ork		

03/31/2004, TRP, well used as observation well during APT of ECUA #8, conducted 10/16/1986 to 10/17/1986, this well was at a radial distance of 104 ft from ECUA #8. DEP report cites surveyed TOC elevation of 36.39 ft NGVD.

Water Manager		NWFWMD Well Inventory Database Sys Site Schedule	tem Printed:May 17, 2004 04:12
Site Id	302538087125902	Site Type G	NWF ID 2226
Well Name	ECUA PCE MW-12		State ID
site_senedule		5	State ID
	DER		
Contact Persor	l		Phone 850-488-3601
Stree	t 2600 BLAIR STONE	E ROAD	
City	TALLAHASSEE	State FL Zip 32301	County Escambia
Latitude	2 302534	Longitude 871257 Datum NAD27	Loc Method Topographic Map
Land Net	t S023T02SR30W	Loc Accuracy >= 60 meters	Loc Source NWFWMD
Elevation	35	Datum NGVD29 Metl	hod Survey
Accuracy	7 1 < 5 feet	Source NWFWMD	
Location Map	PENSACOLA	GW Region Western Panhandle F	Embayment Region
Site Use	Monitor / OBS	Water Use	Monitor
Depth Of Well	57	Depth Of Casing	27
MP Distance From LSD)	Diameter	
Construction Data Source	• Other Government	Casing Material	PVC
Finish	Screen	Driller License Number	2338
Date of Construction	15/09/1986	Construction Method	Hydraulic Rotary
Screen Length	L	Construction Method	Hydraulie Rotary
Screened Intervals			
Water Level	l	Measure Date	
WL Source		WL Method	
Hydrogeologic Units			
			0.1
	t Other		Other
Horsepower Normal Yield		Pump Intake Spcap Discharge	
Spcap Source		Spcap Discharge Method	
Spcap Static Level		Spcap Pumping Level	
Spcap Drawdowr		Hours Pumped	
Speap Drawdowr Speap		Rouis Pulliped	
		Discharge	
Field Water Quality Temperature	x	pH	
Specific Conductance		Chloride	
		Construction Permit	
Consumptive Use Permit		Abandonment Permit	
FL Geological Survey #		Adandonment Permit	
DEP Public Supply #			
Project #'s		Depth Logged	
Geophysical Log #		Depui Logged	
Available LOG Data	l		
Visited By	C.RICHARDS	Date Visited	18/09/1986
Data Entered By	τ	Date Entered	
Last Updated By	C_RICHARDS	Last Updated	17/05/2004
Ambient Network			

(c.richards 17 may 2004; Elevation top of casing surveyed by fdep = 36.18 ft)

-

Water Manager		NWFWMD We	ll Invento Site Scheo			Printed:May 17, 2004 04:12
Distr						
V.W.F.W.N.D Site Ic	302546087130101		Site T	ype G		NWF ID 2286
site_schedule Well Name	ECUA PCE MW-1D					State ID
Owner	DER					
Contact Person	l					Phone 904/488/3601
Stree	2600 BLAIR STONE	ROAD				
City	TALLAHASSEE		State FL	Zip 32301	County Es	cambia
Latitude	302546	Longitude 871301		Datum NAD27	Loc Method 7	Topographic Map
Land Ne	5026T02SR30W	Loc Accu	racy >= 60	meters	Loc Source	
Elevatior	42.97		NGVD29		hod Survey	
Accuracy	7	So	urce		Buivey	
Location Map	PENSACOLA	G	W Region			
Site Use	e Monitor / OBS			Water Use	Monitor	
Depth Of Wel	185			Depth Of Casing	168	
MP Distance From LSE	0 1.72			Diameter	4	
Construction Data Source	e Logs			Casing Material	PVC	
Finish	Screen		Dril	er License Number	2338	
Date of Construction	08/07/1986		С	onstruction Method	Hydraulic Rotary	
Screen Length	1 20					
Screened Intervals	168 / 188					
Water Leve	l			Measure Date		
WL Source	•			WL Method		
Hydrogeologic Units	Sand & Gravel					
Lif	t Other			Power	Other	
Horsepower				Pump Intake		
Normal Yield	l			Spcap Discharge		
Spcap Source	•		Spcap	Discharge Method		
Spcap Static Leve	l		Sp	cap Pumping Level		
Spcap Drawdowr				Hours Pumped		
Spcar)					
Field Water Quality				Discharge		
Temperature				pH		
Specific Conductance	•			Chloride		
Consumptive Use Permi	t		(Construction Permit	T198604555	
FL Geological Survey #	ŧ		A	bandonment Permit		
DEP Public Supply #	ŧ					
Project #'s						
Geophysical Log #				Depth Logged		
Available LOG Data	Electric Gamma	1				
	C.RICHARDS			Date Visited	08/07/1986	
Data Entered By	7			Date Entered		
Last Updated By	C_RICHARDS			Last Updated	17/05/2004	
Ambient Network	5					

Top of casing elevation surveyed by DEP as 44.69 ft, stick up reported as 1.72 ft, by difference LSD = 42.97 ft NGVD, well used as observation well for 10/1986 APT, radial distance = 1,212 ft.

Water Man and Disr		NWFWMD Well Inventory I Site Schedule		tem Printed:May 17, 2004 04:12
² Site Id	302546087130103	Site Type	G	NWF ID 2288
site schedule Well Name	ECUA PCE MW-1S			State ID
	DER			
Contact Person	L			Phone 904/488/3601
Street	2600 BLAIR STON	EROAD		1
City	TALLAHASSEE	State FL Z	Zip 32301	County Escambia
-	302546		um NAD27	Loc Method Topographic Map
	S026T02SR30W	Loc Accuracy >= 60 meter	ers	Loc Source
Elevation		Datum NGVD29		nod Survey
Accuracy		Source	Wieth	Survey
	PENSACOLA,FL.	GW Region		
	Monitor / OBS	GW Region	Water Use	Monitor
Depth Of Well		Γ	Pepth Of Casing	
MP Distance From LSD		D	Diameter	
Construction Data Source		(Casing Material	
	Screen		icense Number	
Date of Construction		Const	ruction Method	Hydraulic Rotary
Screen Length	10	Const	ruction method	Hyuraune Kotary
Screened Intervals	28 / 38			
Water Level	-20.13		Measure Date	01/07/1986
WL Source	Other Government		WL Method	Steel Tape
Hydrogeologic Units	Sand & Gravel			
Lift	Other		Power	Other
Horsepower			Pump Intake	
Normal Yield			pcap Discharge	
Spcap Source			scharge Method	
Spcap Static Level			Pumping Level	
Spcap Drawdown Spcap			Hours Pumped	
			Discharge	
Field Water Quality Temperature			pH	
Specific Conductance			Chloride	
		0	struction Permit	T100/04554
Consumptive Use Permit FL Geological Survey #			donment Permit	1198604554
DEP Public Supply #		Abaic	Johnnent Fermit	
Project #'s				
Geophysical Log #			Depth Logged	
Available LOG Data				
Visited By	C.RICHARDS		Date Visited	08/07/1986
Data Entered By	,		Date Entered	
Last Updated By	C_RICHARDS		Last Updated	17/05/2004
Ambient Network				

elevation surveyed by fdep: top of casing = 43.45

Water Monage		nventory Database Sys e Schedule	Stem Printed:May 17, 2004 04:12
District			
Site Id 30260508		Site Type G	NWF ID 2369
site_schedule Well Name ECUA PC	CE MW-2D		State ID AAA6968
Owner FDEP			
Contact Person			Phone 904/488/3601
	IR STONE ROAD		
City TALLAH		te FL Zip 32301	County Escambia
Latitude 302604.2 4	e	Datum NAD27	Loc Method Global Positioning Satellite (GPS)
Land Net S018T0		0.3 < 3 meters	Loc Source NWFWMD
Elevation 45.09	Datum N	GVD29 Met	thod Survey
Accuracy < 0.1 feet	Sourc	e Other Government	
Location Map PENSAC	OLA GW I	Region Western Panhandle	Embayment Region
Site Use Monitor /	OBS	Water Use	Monitor
Depth Of Well 168		Depth Of Casing	148
MP Distance From LSD 1.1		Diameter	4
Construction Data Source Driller		Casing Material	PVC
Finish Screen		Driller License Number	2338
Date of Construction 16/07/198	6	Construction Method	Hydraulic Rotary
Screen Length 20			
Screened Intervals 148 / 168			
Water Level -20.58		Measure Date	15/05/1990
WL Source NWFWM	D	WL Method	Steel Tape
Hydrogeologic Units Main Pro	ducing Zone (S&G)		
Lift No Pump		Power	
Horsepower		Pump Intake	
Normal Yield		Spcap Discharge	
Spcap Source		Spcap Discharge Method	
Spcap Static Level		Spcap Pumping Level	
Spcap Drawdown		Hours Pumped	
Spcap			
Field Water Quality		Discharge	
Temperature		pH	
Specific Conductance		Chloride	
Consumptive Use Permit		Construction Permit	
FL Geological Survey #		Abandonment Permit	
DEP Public Supply #			
Project #'s 74 25	8 42 46 87		
Geophysical Log # 67		Depth Logged	164
Available LOG Data Gamma			
Visited By C.RICHA	RDS	Date Visited	16/07/1986
Data Entered By		Date Entered	
Last Updated By T_PRAT	Г	Last Updated	06/04/2004
Ambient Network APVI			

PNV-9; MP = TOP OF 4'' PVC CASING = 46.19, surveyed by DEP. Well used as obs. well for 1986 ECUA #8 APT, r = 3,800 ft.

Water Manager and State an	Ν	WFWMD Well Inventory Database Syst Site Schedule	tem Printed:May 17, 2004 04:12
Site Id	302605087132303	Site Type G	NWF ID 2371
N.W.F.W.N.	ECUA PCE MW-2S	She Type G	State ID AAA6967
site_selfedule			State ID AAA0707
Owner	DEK		
Contact Person			Phone 904/488/3601
	2600 BLAIR STONE		
-	TALLAHASSEE	State FL Zip 32301	County Escambia
		Longitude 871323.02 Datum NAD27	Loc Method Global Positioning Satellite (GPS)
	S018T02SR30W	Loc Accuracy 0.3 < 3 meters	Loc Source
Elevation 4	44.74	Datum NGVD29 Meth	nod Survey
Accuracy		Source	
Location Map 1		GW Region Western Panhandle E	Embayment Region
Site Use 1	Monitor / OBS	Water Use	Monitor
Depth Of Well		Depth Of Casing	
MP Distance From LSD -	3	Diameter	
Construction Data Source		Casing Material	PVC
Finish		Driller License Number	2338
Date of Construction 2		Construction Method	Hydraulic Rotary
Screen Length 1			
Screened Intervals	28 / 38		
Water Level ·	-15.05	Measure Date	
WL Source		WL Method	
Hydrogeologic Units	Surficial Zone (S&G)		
Lift I	No Pump	Power	
Horsepower		Pump Intake	
Normal Yield		Spcap Discharge	
Spcap Source		Spcap Discharge Method	
Spcap Static Level		Spcap Pumping Level	
Spcap Drawdown		Hours Pumped	
Spcap			
Field Water Quality		Discharge	
Temperature		pH	
Specific Conductance		Chloride	
Consumptive Use Permit		Construction Permit	T198604889
FL Geological Survey #		Abandonment Permit	
DEP Public Supply #			
Project #'s	74 25 8 42 4		
Geophysical Log #		Depth Logged	
Available LOG Data			
Visited By	C.RICHARDS	Date Visited	16/07/1986
Data Entered By	~	Date Entered	
Last Updated By	C_RICHARDS	Last Updated	17/05/2004
Ambient Network			

PNV-10; MP = TOP OF 4'' PVC CASING = 44.44 EST (WELL IN MANHOLE)**(c.richards 17 may 2004; elevation top of casing surveyed by fdep in 1987: 45.99 ft)

Water Manager		NWFWMD Well Inventory Database S Site Schedule	ystem Printed:May 17, 2004 04:12
Distric			
N.W.F.W.M.D Site	Id 302538087130301	Site Type G	NWF ID 2227
site_schedule Well Nan	ne ECUA PCE MW-3D		State ID AAA9255
Own	er DER		
Contact Perso	on		Phone 904/488/3601
Stre	et 2600 BLAIR STONE	C ROAD	
Ci	ty TALLAHASSEE	State FL Zip 32301	County Escambia
Latitu	de 302538	Longitude 871303 Datum NAD27	Loc Method Topographic Map
Land N	et S026T02SR30W	Loc Accuracy >= 60 meters	Loc Source
Elevatio	on 46	Datum NGVD29 N	Iethod Survey
Accura	cy 1 < 5 feet	Source NWFWMD	
Location Ma	ap PENSACOLA	GW Region Western Panhandl	e Embayment Region
Site U	se Monitor / OBS	Water U	se Monitor
Depth Of We	ell 138	Depth Of Casin	ng 118
MP Distance From LS	D	Diamet	er 4
Construction Data Sour	ce Owner	Casing Materi	al PVC
Fini	sh Screen	Driller License Numb	er 2338
Date of Construction	on 24/07/1986	Construction Metho	od Hydraulic Rotary
Screen Leng	th 20		· ·
Screened Interva	ls 116 / 136		
Water Lev	el	Measure Da	te
WL Sour	ce	WL Metho	od
Hydrogeologic Uni	ts Main Producing Zon	e (S&G)	
L	ift Other	Powe	r Other
Horsepow	er	Pump Intal	
Normal Yie	ld	Spcap Dischar;	ge
Spcap Sour	ce	Spcap Discharge Metho	od
Spcap Static Lev		Spcap Pumping Lev	el
Spcap Drawdov		Hours Pumpe	ed
Spc	ap		
Field Water Quality		Dischar	-
Temperatu			H
Specific Conductan		Chlorie	
Consumptive Use Perm		Construction Perm	
FL Geological Survey	#	Abandonment Pern	nit
DEP Public Supply			
Project #			
Geophysical Log		Depth Logg	ed
Available LOG Da	ta Gamma		
Visited I	By C_RICHARDS	Date Visite	ed 30/07/1986
Data Entered H	Зу	Date Enter	ed
Last Updated H	By C_RICHARDS	Last Update	ed 17/05/2004
Ambient Netwo	rk		

Well used as observation well for 10/1986 ECUA #8 APT, well at radial distance of 667 ft. Elevation top of casing surveyed by fdep: 45.05 ft)

Water Manager			NWFWMD Well S	Inventor ite Sched		stem	Printed:May 17, 2004 04:12
thous	Site Id	302538087130302		Site T	whe G		NWF ID 2228
N.W.F.W.W.		ECUA PCE MW-3S		She I	ope d		State ID AAA9256
site_schedule	Owner						State ID AAA/250
C	ontact Person						$D_{1} = 0.04/499/3601$
C							Phone 904/488/3601
		2600 BLAIR STONE	-		7:- 22201		
	•	TALLAHASSEE		State FL	Zip 32301	County I	
	Latitude		Longitude 871303		Datum NAD27		Topographic Map
		S026T02SR30W	Loc Accura			Loc Source	
	Elevation	46	Datum 1	NGVD29	Me	thod Survey	
		1 < 5 feet		rce NWF	WMD		
I	Location Map	PENSACOLA,FL.	GW	Region			
	Site Use	Monitor / OBS			Water Use	e Monitor	
	epth Of Well				Depth Of Casing		
	ce From LSD				Diameter		
Construction	n Data Source				Casing Materia		
		Screen		Drill	er License Number	2338	
	Construction			Co	onstruction Method	l Hydraulic Rotar	у
	creen Length						
Screen	ned Intervals	26 / 36					
	Water Level				Measure Date		
	WL Source				WL Method	1	
Hydroge	eologic Units	Sand & Gravel					
	Lift	Other			Power	Other	
	Horsepower				Pump Intake		
	Normal Yield				Spcap Discharge		
	Spcap Source				Discharge Method		
	p Static Level			Sp	cap Pumping Leve		
Spca	ap Drawdown				Hours Pumped	1	
	Spcap						
Field Water					Discharge		
	Temperature				pH		
	Conductance				Chloride		
-	ve Use Permit				Construction Permi		
0	cical Survey #			A	bandonment Permi	t	
DEP Pul	blic Supply #						
	Project #'s						
-	hysical Log #				Depth Logged	I	
Availab	ole LOG Data						
	Visited By	C.RICHARDS			Date Visited	1 30/07/1986	
Dat	ta Entered By				Date Entered	I	
Las	t Updated By	C_RICHARDS			Last Updated	17/05/2004	
Amb	ient Network						

Elevation top of casing surveyed by fdep: 44.69 ft.

Louida Water Manage			NWFWM				oase Sys			17 2004 04.12
Jsamutitum Dist				S	Site Schee	dule			Printed:May	17,2004 04:12
2	Site Id	302526087130001			Site T	ype G			NWF ID 2	154
site_schedule	Well Name	ECUA PCE MW-4D							State ID	
	Owner	DER								
C	Contact Person								Phone 8	50-488/3601
	Street	2600 BLAIR STONE	E ROAD							
	City	TALLAHASSEE		:	State FL	Zip 32	301	County E	scambia	
	Latitude	302526	Longitude 8	871300		Datum NA	AD27	Loc Method	Fopographic	Мар
	Land Net	S023T02SR30W	Lo	oc Accura	acy >= 60	meters		Loc Source NV	VFWMD	
	Elevation	37		Datum	NGVD29		Met	hod Survey		
	Accuracy	1 < 5 feet		Sou	rce NWF	WMD		-		
	Location Map	PENSACOLA		GV	V Region					
	Site Use	Monitor / OBS				W	/ater Use	Monitor		
Ι	Depth Of Well	167				Depth C	Of Casing	148		
MP Distan	ice From LSD						Diameter			
Construction	n Data Source						Material			
		Screen			Dril	ler License	Number	2338		
	f Construction				С	onstruction	n Method	Hydraulic Rotary		
	Screen Length									
Scree	ened Intervals	148 / 168								
	Water Level					Meas	sure Date			
	WL Source					WI	. Method			
Hydrog	geologic Units	Main Producing Zon	e (S&G)							
	Lift	Other					Power	Other		
	Horsepower						np Intake			
	Normal Yield						Discharge			
	Spcap Source					Discharge				
-	p Static Level				Sp	cap Pumpi	-			
Spc	ap Drawdown					Hours	Pumped			
	Spcap					T	N: 1			
Field Wate						I	Discharge			
Specific	Temperature Conductance						pH Chloride			
								T100/05225		
-	ve Use Permit gical Survey #					bandonme		T198605327		
	iblic Supply #				A	Dandonnie	in remit			
DEP PI	Project #'s									
Gaar	Project # s hysical Log #					Dent	h Logged			
-	ble LOG Data					Depu	1 205500			
	V:-:- 1 D	C DICHADDS				Det	o Visitad	30/07/1986		
De	ta Entered By	C_RICHARDS					e Entered	50/07/1700		
	-	C_RICHARDS						17/05/2004		
						Last	opualed	1//03/2004		
Aml	bient Network									

well used as observation well for ECUA #8 APT, well at radial distance of 788 ft, TRP, 04/12/2004.**(c.richards 17 may 2004; elevation top of casing surveyed by fdep: 38.94 ft)

Nater Manage		NWFWMD Well Inventory Databa Site Schedule	Se System Printed:May 17, 2004 04:12
tion of the state	te Id 302526087130002	Site Type G	NWF ID 2155
W.W.F.W.M.	ame ECUA PCE MW-48		State ID
site_senedule	wner DER		State ID
			P: 950 499 2/01
Contact Pe			Phone 850-488-3601
	treet 2600 BLAIR STON		
	City TALLAHASSEE	State FL Zip 3230	•
	tude 302526	Longitude 871300 Datum NAI	
	Net S023T02SR30W	Loc Accuracy >= 60 meters	Loc Source NWFWMD
Eleva	ation 37	Datum NGVD29	Method Survey
Accu	racy 1 < 5 feet	Source NWFWMD	
Location	Map PENSACOLA	GW Region Western Pank	andle Embayment Region
Site	Use Monitor / OBS	Wa	ter Use Monitor
Depth Of			Casing 26
MP Distance From	LSD		ameter 4
Construction Data So		-	laterial PVC
	inish Screen	Driller License N	1 umber 2338
	ction 30/07/1986	Construction M	Aethod Hydraulic Rotary
Screen Le			
Screened Inter	vals 30 / 40		
Water L	evel	Measur	re Date
WL So	urce	WL N	Iethod
Hydrogeologic U	Jnits Sand & Gravel		
	Lift Other	F	Power Other
Horsepo			Intake
Normal Y		Spcap Dis	
Spcap So		Spcap Discharge N	
Spcap Static L		Spcap Pumping	
Spcap Drawd		Hours P	umped
	рсар		
Field Water Quality		Dis	scharge
Tempera			pH
Specific Conduct			nloride
Consumptive Use Pe			Permit T198605325
FL Geological Surv	-	Abandonment	Permit
DEP Public Supp	-		
	et #'s 25		
Geophysical L	-	Depth I	logged
Available LOG	Data		
Visite	d By C.RICHARDS	Date	Visited 30/07/1986
Data Entere	d By	Date E	Entered
Last Update	d By C_RICHARDS	Last U	pdated 17/05/2004
Ambient Netw	work		

(c.richards 17 may 2004; Elevation top of casing surveyed by fdep: 38.87 ft)

Nater Manager		NWFWMD Well Inve Site So	ntory Database Sys chedule	Printed:May 17, 2004 04:12	
t de la companya de l	202540005124001	6	ta Tama C		
V.W.F.W.M.	302549087124001		te Type G	NWF ID 2301	
site_selfedule	ECUA PCE MW-5D			State ID AAA6993	
	DER				
Contact Person				Phone 904/488/3601	
	2600 BLAIR STONE				
-	TALLAHASSEE	State I	1	County Escambia	
	302548.39	Longitude 871240.32	Datum NAD27	Loc Method Global Positioning Satellite (GPS	i)
	S019T02SR30W	Loc Accuracy 0.3		Loc Source	
Elevation	70.21	Datum NGVD	29 Met	hod Survey	
Accuracy	< 0.1 feet	Source O	other Government		
Location Map	PENSACOLA	GW Regio	on Western Panhandle	Embayment Region	
Site Use	Monitor / OBS		Water Use	Monitor	
Depth Of Well	176		Depth Of Casing	156	
MP Distance From LSD	1.2		Diameter	4	
Construction Data Source	Driller		Casing Material	PVC	
Finish	Screen		Driller License Number	2338	
Date of Construction	13/08/1986		Construction Method	Hydraulic Rotary	
Screen Length	20				
Screened Intervals	156 / 176				
Water Level	-58.53		Measure Date	13/08/1986	
WL Source	NWFWMD		WL Method	Steel Tape	
Hydrogeologic Units	Main Producing Zon	e (S&G)			
Lift	No Pump		Power		
Horsepower			Pump Intake		
Normal Yield			Spcap Discharge		
Spcap Source		S	pcap Discharge Method		
Spcap Static Level			Spcap Pumping Level		
Spcap Drawdown			Hours Pumped		
Spcap					
Field Water Quality			Discharge		
Temperature			pH		
Specific Conductance			Chloride		
Consumptive Use Permit			Construction Permit	T198605461	
FL Geological Survey #			Abandonment Permit		
DEP Public Supply #					
0		42 46 87		150	
Geophysical Log #			Depth Logged	152	
Available LOG Data	Gamma				
Visited By	C.RICHARDS		Date Visited	13/08/1986	_
Data Entered By			Date Entered		
Last Updated By	T_PRATT		Last Updated	04/04/2004	
Ambient Network	XPVI XBK				

GPS DATA ENTERED 2/95 FOR AMBIENT PROGRAM; MP = TOP OF 4'' PVC CASING = 71.41, surveyed by DEP. (09-DEC=96,jmm) WELL REMOVED FROM AMBIENT NETWORK BECAUSE OF CONTAMINATION. Well used as observation well for 1986 ECUA #8 APT, r = 2,133 ft.

Water Manager Ma Manager Manager Manag	and District	NWFWMD Well Inventory Database Sys Site Schedule	tem Printed:May 17, 2004 04:12
2	Site Id 302549087124002	Site Type G	NWF ID 2302
site schedule	Well Name ECUA PCE MW-59	5	State ID AAA6983
	Owner DER		
	Contact Person		Phone 850-488-3601
	Street 2600 BLAIR STON	E ROAD	
	City TALLAHASSEE	State FL Zip 32301	County Escambia
	Latitude 302548.39	Longitude 871240.32 Datum NAD27	Loc Method Global Positioning Satellite (GPS)
	Land Net S019T02SR30W	Loc Accuracy 0.3 < 3 meters	Loc Source NWFWMD
	Elevation 70.2		
			nod Survey
	Accuracy < 0.1 feet	Source Other Government	
	Location Map PENSACOLA	GW Region Western Panhandle F	Embayment Region
	Site Use Monitor / OBS	Water Use	Monitor
	Depth Of Well 75	Depth Of Casing	65
MP Dista	ance From LSD 1.3	Diameter	4
Constructio	on Data Source Driller	Casing Material	PVC
	Finish Screen	Driller License Number	2338
Date of	of Construction 12/08/1986	Construction Method	Hydraulic Rotary
	Screen Length 20		
Scre	eened Intervals 65 / 75		
	Water Level -50.97	Measure Date	13/08/1986
	WL Source NWFWMD	WL Method	Steel Tape
Hydro	ogeologic Units Surficial Zone (S&C		
	Lift No Pump	Power	
	Horsepower	Pump Intake	
	Normal Yield	Spcap Discharge	
	Spcap Source	Spcap Discharge Method	
Spc	cap Static Level	Spcap Pumping Level	
Sp	ocap Drawdown	Hours Pumped	
	Spcap		
Field Wat	ter Quality	Discharge	
	Temperature	pH	
Specifi	ic Conductance	Chloride	
Consumpt	tive Use Permit	Construction Permit	T198605460
FL Geolo	ogical Survey #	Abandonment Permit	
DEP P	Public Supply #		
	Project #'s 74 25 3 8	42 46	
	ophysical Log #	Depth Logged	
Avail	lable LOG Data		
	Visited By C.RICHARDS	Date Visited	13/08/1986
D	Data Entered By	Date Entered	
La	ast Updated By T_PRATT	Last Updated	04/04/2004
An	mbient Network APVI		
PNV-11.	; MP = TOP OF 4'' PVC CASING = 71.	50 ft (curveyed by fden)	

PNV-11; MP = TOP OF 4" PVC CASING = 71.50 ft (surveyed by fdep)

Water Manager		NWFWMD Well Inventory Data Site Schedule	abase Sys	Printed:May 17, 2004 04:12
Site I	d 302543087130701	Site Type G		NWF ID 2279
V.W.F.W.M.		She Type G		State ID
site_selfeduie	e ECUA PCE MW-6S			State ID
	er DER			
Contact Perso				Phone 850-488-3601
	et 2600 BLAIR STONE			
Cit	y TALLAHASSEE	State FL Zip 3	32301	County Escambia
Latitud	e 302543	Longitude 871307 Datum	NAD27	Loc Method Topographic Map
Land Ne	et S026T02SR30W	Loc Accuracy >= 60 meters		Loc Source NWFWMD
Elevatio	n 59.92	Datum NGVD29	Met	hod Topo Map
Accurac	y >= 5 feet	Source NWFWMD		
Location Ma	p PENSACOLA	GW Region Western I	Panhandle	Embayment Region
Site Us	e Monitor / OBS		Water Use	Monitor
Depth Of We	ll 62	Depth	Of Casing	42
MP Distance From LSI	0 1.54		Diameter	4
Construction Data Sourc	e Driller	Casin	ng Material	PVC
Finis	h Screen	Driller Licen	se Number	2338
Date of Constructio	n 01/08/1986	Constructi	on Method	Hydraulic Rotary
Screen Lengt	h 20			
Screened Interval	s 50 / 60			
Water Leve	el -37.61	Me	easure Date	26/08/1986
	e Other Government			Steel Tape
Hydrogeologic Unit	s Sand & Gravel			
Li	ft Other		Power	Other
Horsepowe	r		ump Intake	
Normal Yiel	d	Spcap	Discharge	
Spcap Sourc	e	Spcap Dischar	ge Method	
Spcap Static Leve	el	Spcap Pur	ping Level	
Spcap Drawdow		Ноц	irs Pumped	
Spca	р			
Field Water Quality			Discharge	
Temperatur	e		pН	
Specific Conductanc	e		Chloride	
Consumptive Use Perm	it	Construc	tion Permit	T198605895
FL Geological Survey	#	Abandonn	nent Permit	
DEP Public Supply	#			
Project #	s 3 25			
Geophysical Log	# 72	De	oth Logged	
Available LOG Dat	a Geologist Gamma	a		
Visited B	y C.RICHARDS	D	ate Visited	03/09/1986
Data Entered B	у	D	ate Entered	
Last Updated B	y T_PRATT	La	st Updated	04/04/2004
Ambient Networ	k			

(c.richards 17 may 2004; Elevation top of casing surveyed by fdep = 61.46 ft)

Water Manager 40 Bond Dig		NWFWMD Well Inventory Database Sys Site Schedule	tem Printed:May 17, 2004 04:12
⁹ Site Io	1 302539087130601	Site Type G	NWF ID 2239
site schedule Well Name	e ECUA PCE MW-7S		State ID AAA9253
	r DER		
Contact Persor			Phone 904/488/3601
	t 2600 BLAIR STONI	PROAD	Filone 204/400/2001
	Y TALLAHASSEE	State FL Zip 32301	
· · · · · · · · · · · · · · · · · · ·		•	County Escambia
	e 302539	Longitude 871306 Datum NAD27	Loc Method Topographic Map
	t S026T02SR30W	Loc Accuracy >= 60 meters	Loc Source
Elevation	n 60.65	Datum NGVD29 Met	hod Survey
	<i>V</i> < 0.1 feet	Source NWFWMD	
	PENSACOLA, FL	GW Region	
Site Use	e Monitor / OBS	Water Use	Monitor
Depth Of Wel		Depth Of Casing	
MP Distance From LSI	0 1.11	Diameter	
Construction Data Source	e Driller	Casing Material	PVC
	Screen	Driller License Number	2338
Date of Construction		Construction Method	Hydraulic Rotary
Screen Length			
Screened Intervals	45 / 65		
Water Leve	1 -39.09	Measure Date	26/08/1986
WL Source	e Other Government	WL Method	Steel Tape
Hydrogeologic Unit	⁸ Sand & Gravel		
Lif	t Other	Power	Other
Horsepowe		Pump Intake	
Normal Yield		Spcap Discharge	
Spcap Source		Spcap Discharge Method	
Spcap Static Leve		Spcap Pumping Level	
Spcap Drawdown		Hours Pumped	
Spcar)		
Field Water Quality		Discharge	
Temperature		pH	
Specific Conductance		Chloride	
Consumptive Use Permi		Construction Permit	T198605984
FL Geological Survey		Abandonment Permit	
DEP Public Supply			
Project #'			
Geophysical Log #		Depth Logged	
Available LOG Data	a Geologist Gamma	à	
Visited B	C.RICHARDS	Date Visited	03/09/1986
Data Entered B	4	Date Entered	
Last Updated B	C_RICHARDS	Last Updated	17/05/2004
Ambient Networl	ς		

(c.richards 17 may 2004; Elevation top of casing surveyed by fdep = 61.79 ft)

Water Manager		NWFWMD Well Inventory I Site Schedulo		tem Printed:May 17, 2004 04:12
Distric		Site Scheduk		
Site Id	1 302539087131001	Site Type	G	NWF ID 2240
site_schedule Well Name	e ECUA PCE MW-88			State ID
Owne	r DER			
Contact Person	1			Phone 850-488-3601
Stree	t 2600 BLAIR STONE	E ROAD		
Cit	y TALLAHASSEE	State FL	Zip 32301	County Escambia
Latitude	e 302539	Longitude 871310 Dat	um NAD27	Loc Method Topographic Map
Land Ne	t S026T02SR30W	Loc Accuracy >= 60 met	ers	Loc Source NWFWMD
Elevation	n 66.71	Datum NGVD29	Metl	nod Topo Map
Accuracy	∀ >= 5 feet	Source NWFWM		
Location Map	PENSACOLA	GW Region Weste	ern Panhandle H	Embayment Region
Site Use	e Monitor / OBS		Water Use	Monitor
Depth Of Wel	l 72	D	epth Of Casing	52
MP Distance From LSI	0 1.42		Diameter	4
Construction Data Source	e Driller	(Casing Material	PVC
Finisl	Screen	Driller I	license Number	2338
Date of Construction	n 01/08/1986	Const	ruction Method	Hydraulic Rotary
Screen Lengtl	n 20			
Screened Intervals	52 / 72			
Water Leve] -44.97		Measure Date	26/08/1986
WL Source	e Other Government		WL Method	Steel Tape
Hydrogeologic Unit	⁸ Sand & Gravel			
Lif	t Other		Power	Other
Horsepowe	r		Pump Intake	
Normal Yield	1	S	pcap Discharge	
Spcap Source	e	Spcap Dis	scharge Method	
Spcap Static Leve	1	Spcap	Pumping Level	
Spcap Drawdown	1		Hours Pumped	
Spcaj)			
Field Water Quality			Discharge	
Temperature	2		pH	
Specific Conductance	2		Chloride	
Consumptive Use Permi	t	Cons	struction Permit	T198605993
FL Geological Survey	ŧ	Abano	donment Permit	
DEP Public Supply	ŧ			
Project #'	s 3 25			
Geophysical Log	‡ 74		Depth Logged	
Available LOG Data	a Geologist Gamma	a		
Visited B	C.RICHARDS		Date Visited	03/09/1986
Data Entered B	<i>i</i>		Date Entered	
Last Updated B	T_PRATT		Last Updated	04/04/2004
Ambient Networl	ζ.			

(c.richards 17 may 2004; Elevation top of casing surveyed by fdep = 68.13 ft.)

Water Monore		NWFWMD Well Inventory Database S Site Schedule	ystem Printed:May 17, 2004 04:12
⁹ Site	Id 302542087131001	Site Type G	NWF ID 2272
Well Na	me ECUA PCE MW-98		State ID
site_senedure	ner DER		
Contact Per			Phone 850-488-3601
			Phone 050-400-5001
	eet 2600 BLAIR STON		
	ity TALLAHASSEE	State FL Zip 32301	County Escambia
	ıde 302542	Longitude 871310Datum NAD27	Loc Method Topographic Map
	Net S026T02SR30W	Loc Accuracy >= 60 meters	Loc Source NWFWMD
Elevat	ion 68.11	Datum NGVD29 N	fethod Survey
Accur	acy < 0.1 feet	Source NWFWMD	
Location N	ap PENSACOLA	GW Region Western Panhand	le Embayment Region
Site	Jse Monitor / OBS	Water U	se Monitor
Depth Of W	Yell 72	Depth Of Casi	ng 52
MP Distance From L	SD 1.45	Diamet	ter 4
Construction Data Sou	rce Driller	Casing Mater	al PVC
Fin	ish Screen	Driller License Numb	ver 2338
Date of Construct	ion 01/08/1986	Construction Metho	od Hydraulic Rotary
Screen Len	gth 20		
Screened Interv	als 53 / 73		
Water Le	vel	Measure Da	ite
WL Sou	rce	WL Metho	od
Hydrogeologic U	nits Sand & Gravel		
]	Lift Other	Powe	r Other
Horsepov	ver	Pump Inta	
Normal Yi	eld	Spcap Dischar	ge
Spcap Sou	rce	Spcap Discharge Meth	od
Spcap Static Le		Spcap Pumping Lev	rel
Spcap Drawdo		Hours Pump	ed
Sp	cap		
Field Water Quality		Dischar	ge
Temperat	ure	I	эн
Specific Conducta	nce	Chlori	de
Consumptive Use Per		Construction Perm	nit T198606119
FL Geological Surve	y #	Abandonment Perm	nit
DEP Public Suppl			
Project			
Geophysical Lo	g # 75	Depth Logg	ed
Available LOG D	ata Geologist Gamm	a	
Visited	By C.RICHARDS	Date Visit	ed 03/09/1986
Data Entered	Ву	Date Enter	ed
Last Updated	By C_RICHARDS	Last Updat	ed 17/05/2004
Ambient Netw	ork		

(c.richards 17 may 2004; Elevation top of casing surveyed by fdep = 69.56 ft.)