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PART 2 - APPENDICES

HYDROGEOLOGY OF THE KISSIMMEE PLANNING AREA, SOUTH FLORIDA WATER MANAGEMENT DISTRICT

by

Jonathan E. Shaw and Sharon M. Trost

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January 1984

Groundwater Division
Resource Planning Department
South Florida Water Management District
West Palm Beach, Florida

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APPENDIX I

Potentiometric Level Data by Station, SFWMD..... I-1

Potentiometric Level Data by Station, USGS..... I-5

APPENDIX I.

SFWMD STATION NUMBER	MEASURING POINT ELEVATION (FT. NGVD)
GLF- 1	18.81
GLF- 2	17.54
GLF- 3	62.79
GLF- 5	33.03
HIF- 1	39.77
HIF- 2	47.19
HIF- 3	88.75
HIF- 4	70.09
HIF- 5	146.96
HIF- 6	29.08
HIF- 7	89.04
HIF- 8	89.91
HIF- 9	90.97
HIF-13	53.78
HIF-14	36.81
HIF-15	95.29
HIF-16	95.58
HIF-17	96.84
HIF-18	129.99
HIF-20	87.52
HIF-21	81.14
HIF-22	75.92
HIF-23	78.48
HIF-24	88.22
HIF-25	82.35
HIF-26	139.86
HIF-27	142.89
HIF-28	92.34
HIF-29	95.57
HIF-30	114.63
HIF-31	145.02
HIF-32	67.02
HIF-33	67.11
HIF-34	128.64
HIF-37	31.10
HIF-38	76.45
OKF- 2	28.74

.--POTENTIOMETRIC LEVEL DATA BY STATION

HYDRAULIC HEAD, (FT. NGVD)

MAY 80	SEPT 80	MAY 81	SEPT 81	MAY 82	SEPT 82
				48.61	46.31
				46.84	
		43.49	51.54	51.09	52.27
				45.50	46.03
45.8		44.51	45.07	48.58	45.90
	48.60	43.03	48.37	48.94	49.10
50.50	51.55	45.95	52.63	52.86	54.35
43.92			46.54	46.14	47.81
		43.36	50.76	49.86	51.48
		40.00	45.26	45.95	46.82
		43.64	51.84	50.33	51.76
				49.70	51.49
		38.67			
		44.20	44.85	46.83	47.83
			52.39	51.18	52.18
			68.19	59.94	71.47
			68.08	60.60	70.52
			63.64	51.94	
			53.19	52.64	
			50.90	48.35	51.47
			51.31	48.47	
			50.79	48.86	51.56
			50.64		49.99
			50.80	47.44	59.61
			54.68	51.35	54.39
				48.80	51.42
				49.14	51.50
			50.36		51.80
			51.22	48.50	51.58
			52.48	48.98	52.11
			52.87		51.85
			54.32	54.23	55.97
			48.27	47.08	53.39
			52.09		
				47.03	51.29
				45.30	52.24

40.41

SFWMD STATION NUMBER	MEASURING POINT ELEVATION (FT. NGVD)
OKF- 3	36.07
OKF- 4	45.96
OKF- 5	32.72
OKF- 6	44.96
OKF- 7	61.98
OKF- 9	70.02
OKF-10	70.30
OKF-13	33.17
OKF-15	35.22
OKF-16	41.79
OKF-17	41.55
OKF-18	58.12
OKF-19	66.56
OKF-22	32.71
OKF-23	34.44
OKF-25	32.89
OKF-30	30.37
OKF-31	25.72
OKF-34	67.21
OKF-35	30.98
OKF-36	65.55
OKF-37	61.68
OKF-42	40.57
OKF-50	66.19
OKF-51	71.50
OKF-52	69.14
OKF-53	68.23
OKF-54	65.98
OKF-56	55.70
OKF-75	37.12
OKF-76	37.11
OKF-77	49.19
ORF- 1	85.34
ORF- 2	88.08
ORF- 6	121.46
ORF- 7	97.99
ORF-15	77.70
ORF-16	109.41
ORF-17	112.55
ORF-18	101.10
ORF-19	120.12
ORF-21	89.37

I.--POTENTIOMETRIC LEVEL DATA BY STATION (CONT.)

HYDRAULIC HEAD, (FT. NGVD)

MAY 80	SEPT 80	MAY 81	SEPT 81	MAY 82	SEPT 82
42.65	43.57	40.87	44.52	44.12	45.54
		41.03	45.54	44.21	47.09
38.14	40.64	37.22	42.45	40.77	42.58
44.46	45.51	41.21	45.81	44.57	47.34
43.67	45.12	40.68	44.98	44.98	47.45
43.88	45.02	40.63	45.15	43.85	46.53
43.94	45.00	40.70	45.90	44.52	47.03
40.17	43.30	37.07	42.90	42.00	43.51
		41.95		45.19	47.57
41.96					
43.74	43.55	41.54	43.29	44.57	44.75
44.39	45.72	40.86	45.76	44.53	47.13
44.35	46.71	39.26	45.13	43.79	46.67
44.96	48.04	41.61	47.22	46.92	49.41
41.36	40.46	40.14	43.08	43.36	44.28
45.06		42.19	48.82	48.59	48.91
42.54	43.28	41.16	45.21	42.25	45.66
46.89	46.97	44.82	48.17	45.74	49.15
44.34	46.62	40.73	44.66	44.34	47.34
43.81					
44.36		40.67	45.59	44.35	46.98
44.61	46.15	41.36	46.45	44.71	47.53
				45.73	47.18
33.49	37.96	29.01	39.08	37.97	39.59
37.90	39.00			38.51	39.56
37.14	38.44	31.24	38.34	38.47	40.20
38.41	38.88	33.83	38.25	38.63	38.38
36.68	39.00	32.98	38.07	36.67	39.49
47.52	48.30	41.29	43.66	46.84	46.09
37.45	46.04	37.72	49.15	48.17	48.92
43.69	45.86				
43.21	46.34	39.94	41.49	44.84	47.33
48.42	48.26	43.	47.24		
49.11	47.85			47.21	59.46
110.15					
50.65	50.02	44.	49.68	48.98	55.44
48.33	48.33		48.18		
85.01	85.14	81.	85.36	84.52	87.21
87.04	87.18		87.58	86.44	89.37
88.42	88.44	85.	88.25	88.31	90.18
106.81	107.60	104.	107.60	106.73	109.30
54.64	55.00	49.	55.17	54.66	58.79

SFWMD STATION NUMBER	MEASURING POINT ELEVATION (FT. NGVD)
ORF-22	93.37
ORF-25	71.69
ORF-26	129.98
ORF-29	109.00
ORF-30	110.52
ORF-31	118.92
ORF-32	159.60
ORF-33	108.28
ORF-34	104.80
ORF-35	136.79
ORF-36	95.28
ORF-37	84.84
ORF-40	96.00
ORF-41	82.77
OSF- 1	80.93
OSF- 2	110.35
OSF- 4	59.09
OSF- 5	75.26
OSF- 6	60.89
OSF- 8	60.78
OSF- 9	88.72
OSF-10	86.63
OSF-11	66.62
OSF-12	75.99
OSF-13	71.64
OSF-14	78.65
OSF-15	78.83
OSF-16	72.27
OSF-17	75.64
OSF-18	74.66
OSF-20	73.90
OSF-21	73.11
OSF-22	65.78
OSF-23	81.69
OSF-24	73.64
OSF-27	62.37
OSF-26	80.09
OSF-29	79.05
OSF-31	79.50
OSF-32	81.51
OSF-33	77.59
OSF-34	78.54

I.--POTENTIOMETRIC LEVEL DATA BY STATION (CONT.)

HYDRAULIC HEAD, (FT. NGVD)

MAY 80	SEPT 80	MAY 81	SEPT 81	MAY 82	SEPT 82
49.46				45.47	53.21
42.02	42.60	38.	43.06	43.47	45.51
		73.	77.93		80.59
94.27	93.81		94.41	94.06	95.96
91.16	90.57	90.	91.64	92.31	95.34
81.26	81.38	76.	82.22	77.24	85.28
62.45	68.06		68.07		
59.06	59.41	59.	64.39	63.53	67.53
		76.	81.42	78.04	83.86
69.24	65.45	59.	65.19	64.45	69.23
45.94	46.17	40.	45.59	46.10	48.22
57.01	56.19	50.			
				90.44	93.04
56.55	56.69	50.	56.78	55.38	60.55
64.25		62.	64.64	63.21	66.23
90.50		88.	90.89	89.92	93.59
46.24	49.37	42.	47.17	47.57	49.17
77.01	76.63	74.	77.27	76.51	78.41
52.89	51.61	48.	52.95	52.83	59.82
61.25	60.99	56.	61.51	60.63	63.50
54.48		49.	55.73		57.50
				54.55	
64.57	64.39	59.	64.50	63.28	66.50
	46.78	42.	46.57	45.41	48.90
66.13	65.26			65.45	
66.17	65.97	61.	63.70	65.28	68.19
41.16	40.25			41.53	43.50
51.98	51.05	47.	52.69		
45.94			46.08	44.12	48.78
45.38	47.44	45.	48.51	48.38	50.65
43.83		40.		46.24	48.24
42.33			42.63	42.45	44.32
43.67		38.	43.34		45.64
52.07					
43.09		40.	43.73	43.88	46.82
44.46	44.43	40.	44.70	44.87	47.28
66.50			63.59	64.23	67.31
		41.	46.25	45.83	47.46
		40.	41.71	45.33	
91.21	95.41	87.	91.21	87.96	92.81
	46.41		46.42	50.53	48.51
		47.	52.14	51.79	54.46

SFWMD STATION NUMBER	MEASURING POINT ELEVATION (FT. NGVD)
OSF-35	105.67
OSF-37	75.63
OSF-38	79.23
OSF-39	72.45
OSF-42	70.81
OSF-44	76.05
OSF-52	55.05
OSF-53	60.62
POF- 1	106.89
POF- 2	183.66
POF- 3	115.14
POF- 4	96.90
POF- 5	55.47
POF- 6	55.81
POF- 8	68.56
POF- 9	65.19
POF-10	64.24
POF-11	64.04
POF-12	63.05
POF-13	57.78
POF-14	75.09
POF-15	62.04
POF-17	100.76
POF-18	60.30
POF-19	69.04
POF-20	51.30

I.--POTENTIOMETRIC LEVEL DATA BY STATION (CONT.)

HYDRAULIC HEAD, (FT. NGVD)

MAY 80	SEPT 80	MAY 81	SEPT 81	MAY 82	SEPT 82
93.59				93.35	97.69
39.87	40.70				42.53
45.94	46.76				
	43.18				
42.87	44.19	39.	44.14	44.39	45.72
		42.	46.58	53.40	48.43
				45.65	
				53.56	
90.69	90.32	89.	91.24	90.22	93.01
118.36	117.57		116.20		120.92
109.10	108.26	106.	107.40	107.62	111.00
81.24	80.74		79.55	76.03	77.96
45.85	45.49		45.47	46.03	47.30
	68.69	63.	68.39	65.89	70.09
79.20	81.35	72.	81.25	74.45	82.75
73.19	73.49		74.19	69.99	75.79
74.73	78.64		76.64	71.94	78.84
			76.64		77.04
75.65	77.45	64.	75.05	70.65	77.75
55.25	55.29	51.	55.87	56.23	57.56
72.05			71.29	70.35	73.01
	59.73	54.		58.86	61.02
62.75	62.97		61.61	65.51	67.14
42.70	43.66	39.	44.30	44.75	45.90
79.48	81.08	72.	80.28	74.28	83.08
					47.21

SFWMD STATION NUMBER	MEASURING POINT ELEVATION (FT. NGVD)
X - 1	
X - 2	
X - 3	
X - 4	
X - 5	
X - 6	
X - 7	
X - 8	
X - 9	
X -10	
X -11	
X -12	
X -13	
X -14	
X -15	
X -16	
X -17	
X -18	
X -19	
X -20	
X -21	
X -22	
X -23	
X -24	
X -25	
X -26	
X -27	
X -28	
X -29	
X -30	
X -31	
X -32	
X -33	
X -34	
X -35	
X -36	
X -37	
X -38	
X -39	
X -40	
X -41	
X -42	
X -43	
X -44	
X -45	

-POTENTIOMETRIC LEVEL DATA BY STATION

HYDRAULIC HEAD, (FT. NGVD)

MAY 80	SEPT 80	MAY 81	SEPT 81	MAY 82	SEPT 82
		45.			
		53.			
		46.	51.26		
		71.			
		61.			
		70.			
		42.			
		44.			
		74.	78.50		
		58.	63.69		
			47.58		
		73.	79.91		
		48.	55.57		
		92.	94.46		
		42.	51.45		
			35.38		
			32.05		
			36.62		
			39.80		
		122.	128.20		
			39.24		
			38.40		
		121.	128.30		
			41.14		
		111.	121.80		
			40.56		
		101.	109.10		
			41.16		
			43.52		
		97.	113.30		
			41.82		
		91.	105.70		
		91.	91.14		
		87.	92.82		
		51.	76.64		
			40.93		
		73.	90.33		
		62.	84.12		
		34.			
			84.05		
		60.	69.14		
			56.93		
		61.	80.92		
		38.	42.49		
		41.	41.72		

APPENDIX I

SFWMD STATION NUMBER	MEASURING POINT ELEVATION (FT. NGVD)
X -46	
X -47	
X -48	
X -49	
X -50	
X -51	
X -52	
X -53	
X -54	
X -55	
X -56	
X -57	
X -58	
X -59	

.--POTENTIOMETRIC LEVEL DATA BY STATION (CONT.)

HYDRAULIC HEAD, (FT. NGVD)

MAY 80	SEPT 80	MAY 81	SEPT 81	MAY 82	SEPT 82
			86.57		
		71.	86.12		
		46.	48.00		
		38.	43.80		
			41.70		
		43.	47.70		
			49.72		
		43.			
		42.			
		44.	50.73		
			94.14		
		66.	84.26		
			83.62		
		69.	70.01		

APPENDIX II

Water Quality Data for Wellhead Water Samples

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
GLF- 1	7/10/79	1850.00
	9/24/79	1780.00
	5/12/82	1035.00
MEAN		1555.00
STANDARD DEVIATION		451.69
NUMBER OF VALUES		3
GLF- 2	1/28/81	2400.00
	5/18/82	0.00
MEAN		2400.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
GLF- 3	5/12/81	0.00
MEAN		0.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		0
GLF- 4	1/ 6/81	1232.00
MEAN		1232.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
GLF- 5	3/ 8/82	5945.00
MEAN		5945.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
HIF- 1	12/ 1/70	926.00

FOR WELLHEAD WATER SAMPLES

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
0.00	0.00	233.88	6.90	87.42	49.75
0.00	26.80	322.33	7.32	72.97	53.42
7.85	26.80	155.20	7.33	55.70	37.70
7.85	26.80	237.14	7.18	72.03	46.96
0.00	0.00	83.61	.25	15.88	8.22
1	2	3	3	3	3
8.05	34.10	246.93	9.23	96.66	56.95
7.10	26.70	0.00	0.00	0.00	0.00
7.58	30.40	246.93	9.23	96.66	56.95
.67	5.23	0.00	0.00	0.00	0.00
2	2	1	1	1	1
7.80	31.20	514.09	12.56	113.42	88.43
7.80	31.20	514.09	12.56	113.42	86.43
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
8.10	27.10	139.84	5.29	62.86	41.38
8.10	27.10	139.84	5.29	62.86	41.38
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
0.00	31.80	884.00	24.00	193.70	141.00
0.00	31.80	884.00	24.00	193.70	141.00
0.00	0.00	0.00	0.00	0.00	0.00
0	1	1	1	1	1
0.00	21.00	0.00	0.00	0.00	0.00

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4
GLF- 1	7/10/79	0.00	0.00
	9/24/79	0.00	219.70
	5/12/82	237.60	200.10
MEAN		237.60	209.90
STANDARD DEVIATION		0.00	13.86
NUMBER OF VALUES		1	2
GLF- 2	1/28/81	496.50	326.10
	5/18/82	438.60	370.20
MEAN		467.55	348.15
STANDARD DEVIATION		40.94	31.18
NUMBER OF VALUES		2	2
GLF- 3	5/12/81	1004.90	264.90
MEAN		1004.90	264.90
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
GLF- 4	1/ 6/81	0.00	221.20
MEAN		0.00	221.20
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		0	1
GLF- 5	3/ 8/82	1837.10	500.40
MEAN		1837.10	500.40
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
HIF- 1	12/ 1/70	118.00	0.00

WATER SAMPLES (CONTINUED)

)	ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
	90.00	12.28	0.00	1058.00
	78.50	18.17	0.00	1101.00
	77.50	11.88	.06	822.00
	82.00	14.11	.06	993.67
	6.95	3.52	0.00	150.21
	3	3	1	3
	83.50	0.00	.08	1524.00
	65.50	0.00	0.00	1194.00
	74.50	0.00	.08	1359.00
	12.73	0.00	0.00	233.35
	2	0	1	2
	71.00	37.46	.02	2226.00
	71.00	37.46	.02	2226.00
	0.00	0.00	0.00	0.00
	1	1	1	1
	83.00	0.00	.02	898.00
	83.00	0.00	.02	898.00
	0.00	0.00	0.00	0.00
	1	0	1	1
	73.00	36.40	.05	3574.00
	73.00	36.40	.05	3574.00
	0.00	0.00	0.00	0.00
	1	1	1	1
	0.00	0.00	0.00	0.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
HIF- 1	5/14/71	940.00
	11/10/71	900.00
	9/25/78	815.00
	12/11/78	801.00
	3/26/79	833.00
	5/22/79	880.00
	9/ 6/79	825.00
	1/ 6/81	858.00
	3/ 9/82	930.00
MEAN		870.80
STANDARD DEVIATION		51.59
NUMBER OF VALUES		10
HIF- 2	9/26/78	565.00
	12/11/78	610.00
	3/26/79	518.00
	5/22/79	564.00
	9/ 6/79	627.00
	1/ 7/81	638.00
	5/10/82	546.00
MEAN		581.14
STANDARD DEVIATION		44.62
NUMBER OF VALUES		7
HIF- 3	10/12/78	313.00
	3/27/79	418.00
MEAN		365.50
STANDARD DEVIATION		74.25
NUMBER OF VALUES		2

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
0.00	25.00	0.00	0.00	0.00	0.00
0.00	23.50	0.00	0.00	0.00	0.00
7.40	26.00	75.36	4.08	57.93	31.53
0.00	24.60	80.59	4.29	35.81	28.16
7.80	0.00	85.19	4.42	32.72	19.43
7.55	25.60	41.65	3.93	54.77	29.99
7.70	0.00	69.22	7.90	52.52	27.68
7.55	24.60	75.80	3.89	58.21	32.82
0.00	27.40	77.00	4.20	57.00	33.10
7.60	24.74	72.12	4.67	49.85	28.96
.15	1.69	14.30	1.44	10.86	4.70
5	8	7	7	7	7
7.60	24.50	48.64	3.88	37.59	27.19
0.00	24.90	49.38	3.75	37.10	26.83
8.15	21.60	45.26	3.94	23.90	22.21
7.65	23.90	41.65	3.80	27.92	25.52
7.25	29.80	41.55	4.50	56.03	23.11
8.05	23.60	47.33	3.70	36.74	28.11
7.70	26.40	42.40	4.32	35.00	26.00
7.73	24.96	45.17	3.98	36.33	25.57
.33	2.58	3.36	.31	10.14	2.17
6	7	7	7	7	7
7.25	27.00	18.24	1.60	36.30	16.70
7.75	26.90	18.58	1.72	35.29	16.00
7.50	26.95	18.41	1.66	35.80	16.35
.35	.07	.24	.08	.71	.49
2	2	2	2	2	2

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4
HIF- 1	5/14/71	118.00	0.00
	11/10/71	120.00	0.00
	9/25/78	117.60	174.00
	12/11/78	119.90	160.60
	3/26/79	174.60	28.60
	5/22/79	124.50	22.90
	9/ 6/79	115.20	194.70
	1/ 6/81	113.10	186.60
	3/ 9/82	121.90	190.70
MEAN		124.28	136.87
STANDARD DEVIATION		17.97	76.78
NUMBER OF VALUES		10	7
HIF- 2	9/26/78	91.40	47.40
	12/11/78	86.40	49.80
	3/26/79	78.60	0.00
	5/22/79	83.20	5.00
	9/ 6/79	87.10	47.80
	1/ 7/81	83.30	46.70
	5/10/82	82.60	29.40
MEAN		84.66	37.68
STANDARD DEVIATION		4.07	17.67
NUMBER OF VALUES		7	6
HIF- 3	10/12/78	28.50	61.10
	3/27/79	29.60	129.70
MEAN		29.05	95.40
STANDARD DEVIATION		.78	48.51
NUMBER OF VALUES		2	2

WATER SAMPLES (CONTINUED)

)	ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	95.50	14.27	0.00	595.00
	0.00	14.66	0.00	515.00
	23.50	16.29	0.00	436.00
	93.50	14.76	.10	579.00
	79.00	9.55	0.00	593.00
	90.00	0.00	.06	625.00
	84.00	14.80	.03	0.00
	77.58	14.05	.06	557.17
	27.19	2.32	.04	69.65
	6	6	3	6
	146.00	10.81	0.00	403.00
	0.00	11.34	0.00	374.00
	137.00	10.03	0.00	0.00
	158.50	10.43	.15	0.00
	133.50	3.91	0.00	385.00
	152.50	0.00	.02	386.00
	148.00	10.37	.06	368.00
	146.25	9.48	.08	383.20
	9.42	2.76	.07	13.41
	6	6	3	5
	117.50	13.26	0.00	257.00
	116.00	15.38	0.00	0.00
	116.75	14.32	0.00	257.00
	1.06	1.50	0.00	0.00
	2	2	0	1

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
HIF- 4	4/12/79	0.00
	1/ 7/81	1022.00
MEAN		1022.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
HIF- 6	1/28/81	667.00
	1/25/82	677.00
	3/10/82	657.00
MEAN		667.00
STANDARD DEVIATION		10.00
NUMBER OF VALUES		3
HIF- 7	5/12/81	0.00
MEAN		0.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		0
HIF- 8	1/ 7/81	482.00
	5/12/81	0.00
MEAN		482.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
HIF- 9	1/ 7/81	482.00
	5/12/81	0.00
MEAN		482.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
0.00	0.00	70.38	3.05	70.73	42.78
8.05	27.30	73.42	2.90	75.67	43.78
8.05	27.30	71.90	2.98	73.20	43.28
0.00	0.00	2.15	.11	3.49	.71
1	1	2	2	2	2
8.00	26.40	52.68	4.44	43.15	24.79
0.00	26.20	51.30	4.80	44.70	24.40
0.00	0.00	51.80	4.60	42.30	24.40
8.00	26.30	51.93	4.61	43.38	24.53
0.00	.14	.70	.18	1.22	.23
1	2	3	3	3	3
8.00	30.20	9.67	1.07	44.68	17.32
8.00	30.20	9.67	1.07	44.68	17.32
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
8.00	27.60	27.25	2.00	39.63	19.84
8.00	30.50	14.45	1.24	49.65	21.24
8.00	29.05	20.85	1.62	44.64	20.54
0.00	2.05	9.05	.54	7.09	.99
2	2	2	2	2	2
7.65	29.00	11.43	1.31	57.41	21.26
7.90	29.30	12.06	1.41	57.93	20.80
7.78	29.15	11.75	1.36	57.67	21.03
.18	.21	.45	.07	.37	.33
2	2	2	2	2	2

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
HIF- 4	4/12/79	144.20	246.10
	1/ 7/81	142.60	239.20
MEAN		143.40	242.65
STANDARD DEVIATION		1.13	4.88
NUMBER OF VALUES		2	2
HIF- 6	1/28/81	110.20	145.20
	1/25/82	75.60	99.20
	3/10/82	74.50	101.40
MEAN		86.83	115.27
STANDARD DEVIATION		20.25	25.95
NUMBER OF VALUES		3	3
HIF- 7	5/12/81	15.50	62.10
MEAN		15.50	62.10
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
HIF- 8	1/ 7/81	35.80	42.50
	5/12/81	19.80	89.50
MEAN		27.80	66.00
STANDARD DEVIATION		11.31	33.23
NUMBER OF VALUES		2	2
HIF- 9	1/ 7/81	19.60	50.90
	5/12/81	19.80	64.80
MEAN		19.70	57.85
STANDARD DEVIATION		.14	9.83
NUMBER OF VALUES		2	2

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
105.50	41.84	0.00	734.00
101.00	0.00	.02	715.00
103.25	41.84	.02	724.50
3.18	0.00	0.00	13.44
2	1	1	2
124.50	0.00	.04	437.00
129.50	9.20	.02	459.00
124.00	10.20	.05	323.00
126.00	9.70	.04	406.33
3.04	.71	.02	73.00
3	2	3	3
122.00	9.46	.02	272.00
122.00	9.48	.02	272.00
0.00	0.00	0.00	0.00
1	1	1	1
147.00	0.00	.02	296.00
125.00	13.38	.02	343.00
136.00	13.38	.02	319.50
15.56	0.00	0.00	33.23
2	1	2	2
184.00	0.00	.07	335.00
165.00	12.50	.04	337.00
174.50	12.50	.06	336.00
13.44	0.00	.02	1.41
2	1	2	2

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
HIF- 10	2/10/81	333.00
MEAN		333.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
HIF- 11	2/ 9/81	820.00
MEAN		820.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
HIF- 13	6/16/81	900.00
MEAN		900.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
HIF- 14	6/16/81	300.00
	5/11/82	247.00
MEAN		273.50
STANDARD DEVIATION		37.48
NUMBER OF VALUES		2
HIF- 16	6/17/81	712.00
MEAN		712.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
HIF- 19	6/16/81	408.00
MEAN		408.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
8.35	27.30	11.39	1.27	25.91	12.10
8.35	27.30	11.39	1.27	25.91	12.10
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
8.05	25.20	58.83	2.69	54.12	28.11
8.05	25.20	58.83	2.69	54.12	28.11
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
8.15	27.90	42.19	1.85	47.86	33.56
8.15	27.90	42.19	1.85	47.86	33.56
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
8.65	25.70	7.41	.73	17.27	9.28
0.00	25.60	10.00	1.09	23.60	9.60
8.65	25.65	8.71	.91	20.44	9.44
0.00	.07	1.83	.25	4.48	.23
1	2	2	2	2	2
7.75	29.40	5.76	1.63	54.47	30.02
7.75	29.40	5.76	1.63	54.47	30.02
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
8.05	29.40	5.76	.95	28.85	16.78
8.05	29.40	5.76	.95	28.85	16.78
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
HIF- 10	2/10/81	17.10	49.40
MEAN		17.10	49.40
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
HIF- 11	2/ 9/81	114.60	141.40
MEAN		114.60	141.40
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
HIF- 13	6/16/81	82.80	169.90
MEAN		82.80	169.90
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
HIF- 14	6/16/81	20.00	41.00
	5/11/82	14.00	29.40
MEAN		17.00	35.20
STANDARD DEVIATION		4.24	8.20
NUMBER OF VALUES		2	2
HIF- 16	6/17/81	15.40	71.90
MEAN		15.40	71.90
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
HIF- 19	6/18/81	14.30	47.40
MEAN		14.30	47.40
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
79.00	8.17	0.00	0.00
79.00	8.17	0.00	0.00
0.00	0.00	0.00	0.00
1	1	0	0
86.00	15.98	0.00	0.00
86.00	15.98	0.00	0.00
0.00	0.00	0.00	0.00
1	1	0	0
106.00	19.06	.04	536.00
106.00	19.06	.04	536.00
0.00	0.00	0.00	0.00
1	1	1	1
61.50	7.47	.16	172.00
52.00	8.19	.08	168.00
56.75	7.83	.12	170.00
6.72	.51	.06	2.83
2	2	2	2
126.50	25.02	.09	65.00
126.50	25.02	.09	65.00
0.00	0.00	0.00	0.00
1	1	1	1
106.50	9.77	.12	211.00
106.50	9.77	.12	211.00
0.00	0.00	0.00	0.00
1	1	1	1

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
HIF- 21	1/25/82	5365.00
MEAN		5365.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
HIF- 22	8/11/81	0.00
MEAN		0.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		0
HIF- 23	8/12/81	0.00
MEAN		0.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		0
HIF- 27	8/12/81	0.00
MEAN		0.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		0
HIF- 28	8/12/81	0.00
MEAN		0.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		0
HIF- 29	8/12/81	0.00
MEAN		0.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		0

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
6.80	35.00	846.30	24.80	215.20	41.90
6.80	35.00	846.30	24.80	215.20	41.90
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
8.05	31.60	175.70	5.17	79.91	46.25
8.05	31.60	175.70	5.17	79.91	46.25
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
8.05	30.40	179.07	4.88	88.09	48.88
8.05	30.40	179.07	4.88	88.09	48.88
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
8.35	28.90	53.31	2.38	44.74	20.49
8.35	28.90	53.31	2.38	44.74	20.49
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
8.15	29.20	71.00	2.89	50.46	24.88
8.15	29.20	71.00	2.89	50.46	24.88
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
8.65	27.90	30.56	2.44	14.48	9.71
8.65	27.90	30.56	2.44	14.48	9.71
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
HIF- 21	1/25/82	1660.60	625.10
MEAN		1660.80	625.10
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
HIF- 22	8/11/81	309.90	248.60
MEAN		309.90	248.60
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
HIF- 23	8/12/81	328.20	238.90
MEAN		328.20	238.90
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
HIF- 27	8/12/81	86.60	98.70
MEAN		86.60	98.70
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
HIF- 28	8/12/81	123.20	121.40
MEAN		123.20	121.40
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
HIF- 29	8/12/81	22.00	13.00
MEAN		22.00	13.00
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
90.50	26.30	.05	3344.00
90.50	26.30	.05	3344.00
0.00	0.00	0.00	0.00
1	1	1	1
78.00	33.20	0.00	477.00
78.00	33.20	0.00	477.00
0.00	0.00	0.00	0.00
1	1	0	1
91.00	32.28	0.00	1076.00
91.00	32.28	0.00	1076.00
0.00	0.00	0.00	0.00
1	1	0	1
75.00	15.24	0.00	298.00
75.00	15.24	0.00	298.00
0.00	0.00	0.00	0.00
1	1	0	1
79.50	16.98	0.00	515.00
79.50	16.98	0.00	515.00
0.00	0.00	0.00	0.00
1	1	0	1
96.50	3.92	0.00	185.00
96.50	3.92	0.00	185.00
0.00	0.00	0.00	0.00
1	1	0	1

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
HIF- 30	8/12/81	0.00
MEAN		0.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		0
HIF- 31	8/12/81	0.00
MEAN		0.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		0
HIF- 32	8/13/81	0.00
MEAN		0.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		0
HIF- 35	12/15/81	973.00
MEAN		973.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
HIF- 36	2/18/82	831.00
MEAN		831.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
HIF- 37	4/ 5/82	427.00
	5/18/82	0.00
	9/15/82	0.00
MEAN		427.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
8.15	29.00	17.08	1.42	48.01	18.73
8.15	29.00	17.08	1.42	48.01	18.73
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
8.25	28.00	10.34	1.48	37.38	15.21
8.25	28.00	10.34	1.48	37.38	15.21
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
8.45	27.70	3.60	1.08	21.84	9.50
8.45	27.70	3.60	1.08	21.84	9.50
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
6.85	29.50	82.70	3.03	66.10	29.60
6.85	29.50	82.70	3.03	66.10	29.60
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
0.00	28.70	46.20	2.40	63.70	33.00
0.00	28.70	46.20	2.40	63.70	33.00
0.00	0.00	0.00	0.00	0.00	0.00
0	1	1	1	1	1
7.75	27.00	23.60	1.50	35.20	18.00
0.00	0.00	12.50	1.10	36.10	16.90
0.00	0.00	12.30	1.11	37.10	15.90
7.75	27.00	16.13	1.24	36.13	16.93
0.00	0.00	6.47	.23	.95	1.05
1	1	3	3	3	3

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
HIF- 30	8/12/81	26.60	90.70
MEAN		26.60	90.70
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
HIF- 31	8/12/81	14.00	50.70
MEAN		14.00	50.70
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
HIF- 32	8/13/81	12.80	21.40
MEAN		12.80	21.40
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
HIF- 35	12/15/81	151.50	0.00
MEAN		151.50	0.00
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	0
HIF- 36	2/18/82	98.10	196.10
MEAN		98.10	196.10
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
HIF- 37	4/ 5/82	34.30	100.30
	5/18/82	37.40	97.50
	9/15/82	18.20	82.50
MEAN		29.97	93.43
STANDARD DEVIATION		10.31	9.57
NUMBER OF VALUES		3	3

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
119.50	13.66	0.00	340.00
119.50	13.66	0.00	340.00
0.00	0.00	0.00	0.00
1	1	0	1
131.00	8.43	0.00	254.00
131.00	8.43	0.00	254.00
0.00	0.00	0.00	0.00
1	1	0	1
85.00	8.71	0.00	174.00
85.00	8.71	0.00	174.00
0.00	0.00	0.00	0.00
1	1	0	1
70.50	15.20	.02	596.00
70.50	15.20	.02	596.00
0.00	0.00	0.00	0.00
1	1	1	1
84.00	0.00	.03	592.00
84.00	0.00	.03	592.00
0.00	0.00	0.00	0.00
1	0	1	1
77.50	13.28	.04	298.00
58.50	12.76	.02	249.00
53.00	0.00	.02	241.00
63.00	13.02	.03	262.67
12.85	.37	.01	30.86
3	2	3	3

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
HIF- 38	4/ 5/82	1000.00
	4/ 8/82	1976.00
	4/ 8/82	1910.00
	4/ 8/82	1554.00
	4/ 8/82	1360.00
	4/ 8/82	1328.00
	4/ 8/82	1210.00
	4/ 8/82	1230.00
MEAN		1446.00
STANDARD DEVIATION		344.43
NUMBER OF VALUES		8
HIF- 40	4/ 5/82	0.00
	4/ 5/82	0.00
	4/ 8/82	0.00
	4/ 8/82	0.00
	4/22/82	578.00
	4/22/82	556.00
	4/22/82	566.00
	8/18/82	0.00
MEAN		566.67
STANDARD DEVIATION		11.02
NUMBER OF VALUES		3
OKF- 1	4/29/77	626.00
	6/ 2/77	666.00
	6/30/77	516.00
	7/25/77	538.00
	8/29/77	830.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
0.00	0.00	112.80	6.56	41.00	29.40
0.00	0.00	244.00	5.81	79.00	52.40
0.00	0.00	231.60	5.62	74.00	50.80
0.00	0.00	177.70	4.77	60.90	41.00
0.00	0.00	144.00	4.61	54.70	37.10
0.00	0.00	137.70	4.57	52.80	35.90
0.00	0.00	130.80	4.85	47.80	33.70
0.00	0.00	112.50	5.35	37.60	28.10
0.00	0.00	161.39	5.27	55.98	38.55
0.00	0.00	51.51	.70	14.73	9.05
0	0	8	8	8	8
0.00	0.00	40.70	6.89	26.80	27.50
0.00	26.80	20.20	4.25	35.30	9.10
0.00	0.00	40.50	4.94	33.40	41.30
0.00	0.00	40.20	5.64	26.00	39.80
0.00	27.30	43.70	3.84	44.30	37.70
0.00	27.10	43.00	4.09	42.10	37.70
0.00	26.80	43.10	4.23	42.20	37.80
0.00	0.00	42.20	4.51	43.10	37.50
0.00	27.00	39.20	4.80	36.65	33.55
0.00	.24	7.79	1.02	7.40	10.70
0	4	8	8	8	8
7.90	26.70	88.75	8.25	41.16	30.31
7.82	26.60	80.34	4.26	37.26	31.54
7.64	26.80	97.63	6.77	35.98	32.87
7.80	26.40	90.45	6.53	38.32	32.66
7.66	26.90	89.57	6.36	37.91	32.87

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
HIF- 38	4/ 5/82	184.40	123.80
	4/ 8/82	476.30	151.20
	4/ 8/82	518.20	168.40
	4/ 8/82	408.20	140.20
	4/ 8/82	298.20	120.50
	4/ 8/82	315.00	127.60
	4/ 8/82	198.70	119.10
	4/ 8/82	187.70	121.60
MEAN		323.34	134.05
STANDARD DEVIATION		132.29	17.81
NUMBER OF VALUES		8	8
HIF- 40	4/ 5/82	41.10	12.20
	4/ 5/82	22.10	11.70
	4/ 8/82	46.00	75.40
	4/ 8/82	53.40	61.30
	4/22/82	74.90	124.10
	4/22/82	73.80	97.70
	4/22/82	73.00	115.70
	8/18/82	68.90	134.20
MEAN		56.65	79.04
STANDARD DEVIATION		19.29	47.95
NUMBER OF VALUES		8	8
OKF- 1	4/29/77	102.70	125.90
	6/ 2/77	0.00	22.90
	6/30/77	112.20	121.10
	7/25/77	103.60	118.90
	8/29/77	111.30	0.00

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
115.50	32.16	.04	607.00
52.50	47.24	.03	1206.00
62.00	48.36	.04	978.00
61.50	53.90	.03	810.00
58.50	47.24	.02	808.00
66.00	44.08	.03	694.00
65.00	40.72	.03	749.00
91.50	31.80	.02	576.00
71.56	43.19	.03	803.50
21.14	7.86	.01	206.28
8	8	8	8
182.00	9.68	.03	332.00
96.50	4.23	.14	243.00
178.00	11.64	.03	431.00
193.50	10.62	.03	358.00
152.50	19.76	.04	496.00
164.00	18.68	.04	502.00
162.50	18.92	.03	496.00
146.00	0.00	.02	503.00
159.38	13.36	.05	420.13
29.84	5.88	.04	98.71
8	7	8	8
136.50	0.00	0.00	518.00
160.00	0.00	0.00	562.00
159.50	0.00	0.00	540.00
168.50	2.46	.08	0.00
155.00	8.20	.02	528.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OKF- 1	9/26/77	788.00
	10/26/77	848.00
	11/29/77	830.00
	12/29/77	1010.00
	1/30/78	1020.00
	3/28/78	960.00
	5/22/78	859.00
	9/19/78	790.00
	12/ 8/78	830.00
	3/27/79	915.00
	5/ 8/79	945.00
MEAN		810.69
STANDARD DEVIATION		154.23
NUMBER OF VALUES		16
OKF- 2	4/29/77	704.00
	6/ 2/77	743.00
	6/30/77	596.00
	7/25/77	628.00
	8/29/77	1100.00
	9/26/77	1360.00
	10/26/77	920.00
	11/29/77	934.00
	12/29/77	1730.00
	1/30/78	1680.00
	3/28/78	1010.00
	5/22/78	874.00
	9/19/78	880.00
	12/ 8/78	910.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
0.00	26.60	86.17	6.08	39.82	32.56
0.00	26.80	87.15	6.48	36.88	32.73
7.75	25.80	91.05	7.01	41.32	32.21
7.69	24.90	83.49	6.64	37.66	47.02
7.20	26.60	91.49	6.43	41.55	33.89
7.45	26.40	95.73	6.57	41.01	34.81
7.25	23.70	90.82	6.43	39.88	34.55
7.25	26.70	99.36	6.34	40.73	33.71
7.85	27.10	92.34	6.61	42.27	33.13
7.95	27.00	98.28	6.83	41.70	32.11
7.60	25.10	92.21	6.85	43.75	34.04
7.63	26.26	90.93	6.53	39.83	33.81
.25	.93	5.22	.77	2.23	3.70
14	16	16	16	16	16
7.91	26.20	100.31	8.34	46.38	32.93
7.80	26.10	90.29	5.24	41.83	35.36
7.81	26.30	95.34	6.96	38.50	41.21
7.72	25.80	96.91	6.92	41.59	40.22
7.70	26.60	182.10	7.47	77.71	56.62
0.00	26.40	183.13	7.28	71.77	55.32
0.00	26.20	95.62	6.93	39.99	40.74
8.05	25.20	95.62	7.59	42.68	39.12
7.35	26.00	164.33	7.20	67.18	67.85
7.05	26.00	163.12	7.21	65.81	48.46
7.55	25.60	97.70	7.19	41.84	42.00
7.55	25.70	92.88	7.24	40.55	40.11
7.40	25.80	102.16	7.23	44.81	38.64
7.70	26.80	100.90	7.19	43.88	39.65

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD WATER SAMPLES (CONTINUED)

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)	ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
OKF- 1	9/26/77	110.60	117.80	154.50	9.03	0.00	436.00
	10/26/77	113.20	116.50	154.00	8.07	0.00	574.00
	11/29/77	121.20	124.80	155.50	8.58	0.00	538.00
	12/29/77	129.00	131.80	182.50	8.33	0.00	550.00
	1/30/78	278.60	119.70	0.00	8.20	0.00	545.00
	3/28/78	118.90	117.30	164.50	8.98	0.00	564.00
	5/22/78	124.70	119.40	151.00	8.79	0.00	584.00
	9/19/78	128.30	126.50	158.50	9.05	0.00	580.00
	12/ 8/78	126.80	137.40	0.00	9.62	0.00	549.00
	3/27/79	131.30	126.30	153.50	9.29	0.00	0.00
	5/ 8/79	128.40	146.90	146.00	4.35	.02	585.00
MEAN		129.39	118.21	157.11	7.92	.04	546.64
STANDARD DEVIATION		42.33	27.66	10.62	2.09	.03	38.04
NUMBER OF VALUES		15	15	14	13	3	14
OKF- 2	4/29/77	141.60	114.70	143.00	0.00	0.00	632.00
	6/ 2/77	0.00	23.30	143.50	0.00	0.00	848.00
	6/30/77	146.30	109.50	176.00	0.00	0.00	585.00
	7/25/77	136.60	109.50	178.00	2.94	.08	0.00
	8/29/77	363.80	0.00	118.50	15.06	.02	1100.00
	9/26/77	291.20	174.50	143.00	14.37	0.00	863.00
	10/26/77	149.60	107.50	171.50	9.77	0.00	669.00
	11/29/77	147.10	114.90	182.50	10.00	0.00	0.00
	12/29/77	334.70	174.20	157.50	13.43	0.00	1004.00
	1/30/78	257.60	166.70	201.00	13.20	0.00	939.00
	3/28/78	135.20	105.30	178.00	10.25	0.00	600.00
	5/22/78	147.30	109.80	168.00	10.14	0.00	602.00
	9/19/78	165.10	128.50	178.00	10.18	0.00	665.00
	12/ 8/78	158.80	129.10	0.00	10.65	0.00	656.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OKF- 2	3/27/79	978.00
	5/ 8/79	1080.00
	9/24/79	953.00
	9/12/80	0.00
MEAN		1004.71
STANDARD DEVIATION		320.95
NUMBER OF VALUES		17
OKF- 3	5/15/78	4360.00
	9/25/78	0.00
	12/ 5/78	3700.00
	1/17/79	0.00
	3/22/79	4150.00
	5/17/79	4050.00
	9/ 5/79	4160.00
	5/13/80	0.00
	9/16/80	0.00
	1/25/82	4142.00
	5/13/82	4020.00
MEAN		4083.14
STANDARD DEVIATION		200.99
NUMBER OF VALUES		7
OKF- 4	5/15/78	1670.00
	9/29/78	1430.00
	12/ 7/78	1340.00
	5/15/79	1730.00
MEAN		1542.50
STANDARD DEVIATION		187.15
NUMBER OF VALUES		4

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
8.00	26.30	109.05	7.61	44.91	39.41
7.80	25.70	103.38	7.55	43.26	41.65
0.00	26.00	105.95	7.29	45.51	39.65
0.00	25.00	218.40	7.93	82.89	59.12
7.67	25.98	122.07	7.24	51.17	44.34
.27	.45	40.13	.61	14.54	9.29
14	18	18	18	18	18
8.05	23.70	640.34	26.20	34.56	54.66
8.65	24.00	588.43	25.03	35.66	69.62
9.10	0.00	769.01	29.14	36.62	92.17
0.00	0.00	754.13	29.02	83.77	92.98
8.15	24.00	682.80	24.05	48.44	88.90
7.25	23.90	620.59	22.56	40.72	74.31
7.55	24.10	635.80	24.84	82.50	94.93
0.00	24.40	0.00	0.00	0.00	0.00
8.65	24.40	662.12	25.51	51.73	84.34
0.00	26.00	664.00	26.00	35.20	67.20
0.00	23.90	603.60	22.90	58.40	77.60
8.20	24.27	662.08	25.53	50.76	79.67
.65	.69	59.69	2.22	18.84	13.28
7	9	10	10	10	10
7.30	27.40	222.33	7.07	90.89	60.15
6.90	28.30	226.68	6.87	95.73	59.11
7.85	27.50	204.02	7.38	85.69	55.07
7.45	27.30	245.02	7.15	82.69	52.34
7.38	27.63	224.51	7.12	88.75	56.67
.39	.46	16.83	.21	5.76	3.62
4	4	4	4	4	4

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
OKF- 2	3/27/79	165.10	181.20
	5/ 8/79	166.20	125.90
	9/24/79	195.40	128.30
	9/12/80	429.60	225.30
MEAN		207.72	131.07
STANDARD DEVIATION		92.28	44.16
NUMBER OF VALUES		17	17
OKF- 3	5/15/78	1331.70	163.60
	9/25/78	1207.20	202.80
	12/ 5/78	1212.90	228.10
	1/17/79	1258.40	0.00
	3/22/79	1105.60	232.00
	5/17/79	1047.40	320.90
	9/ 5/79	1181.00	252.40
	5/13/80	1177.80	0.00
	9/16/80	1202.10	257.30
	1/25/82	1070.50	171.90
	5/13/82	1115.60	251.60
MEAN		1173.65	231.18
STANDARD DEVIATION		83.84	48.08
NUMBER OF VALUES		11	9
OKF- 4	5/15/78	399.00	232.90
	9/29/78	429.40	267.70
	12/ 7/78	224.30	243.60
	5/15/79	355.20	296.00
MEAN		351.98	260.05
STANDARD DEVIATION		90.40	28.04
NUMBER OF VALUES		4	4

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
168.00	11.01	0.00	0.00
166.00	5.22	.09	660.00
163.50	8.56	0.00	651.00
135.50	12.47	.37	0.00
163.03	10.48	.14	733.86
20.53	3.22	.16	168.33
17	15	4	14
39.50	8.97	0.00	2687.00
35.00	9.69	0.00	2428.00
0.00	10.90	0.00	2364.00
107.00	13.49	0.00	2585.00
48.50	13.92	0.00	2326.00
39.50	10.25	.06	2299.00
103.00	6.56	0.00	2577.00
0.00	0.00	0.00	0.00
45.00	10.71	.08	2256.00
20.50	8.20	.02	2319.00
71.00	11.52	.08	2341.00
56.56	10.42	.06	2418.20
30.53	2.25	.03	146.49
9	10	4	10
100.50	21.87	0.00	1341.00
103.00	39.94	0.00	1166.00
0.00	24.37	0.00	1080.00
100.50	27.97	.65	1069.00
101.33	28.54	.65	1164.00
1.44	8.00	0.00	125.72
3	4	1	4

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OKF- 5	5/16/78	7110.00
	9/25/78	5280.00
	12/ 5/78	6080.00
	3/22/79	7210.00
	5/14/79	3190.00
	9/ 4/79	7100.00
	5/14/80	0.00
	9/16/80	0.00
	1/13/82	7460.00
	2/11/82	7642.00
	2/11/82	7610.00
	2/11/82	7524.00
	2/11/82	7376.00
	2/11/82	7282.00
	2/11/82	7120.00
	2/11/82	7176.00
	3/24/82	7300.00
	5/13/82	7600.00
MEAN		6878.75
STANDARD DEVIATION		1158.69
NUMBER OF VALUES		16
OKF- 6	5/16/78	894.00
	9/26/78	973.00
	12/ 7/78	1280.00
	1/ 3/79	1570.00
	1/ 3/79	1686.00
	3/19/79	653.00
	5/15/79	1530.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.45	24.50	1107.56	31.47	189.12	173.27
6.80	27.80	1008.98	28.29	227.61	157.18
7.45	26.80	518.99	14.35	116.52	92.62
7.35	28.30	1146.69	29.38	240.10	179.63
7.25	25.70	438.35	14.50	113.45	78.74
7.20	24.70	1105.67	28.14	175.25	174.08
0.00	28.50	0.00	0.00	0.00	0.00
7.85	26.00	386.48	11.88	104.96	74.88
7.50	28.20	1109.60	33.68	218.80	173.32
0.00	0.00	1225.00	34.00	265.00	182.00
0.00	0.00	1123.00	31.00	248.00	171.00
0.00	0.00	1182.00	32.00	250.00	170.00
0.00	0.00	1059.00	29.00	224.00	153.00
0.00	0.00	1076.00	29.00	223.00	156.00
0.00	0.00	1054.00	28.00	218.00	154.00
0.00	26.10	1073.00	30.00	228.00	161.00
7.55	26.00	1074.00	29.00	238.80	40.60
0.00	28.00	1048.00	26.00	214.80	117.20
7.38	27.05	984.49	27.04	205.61	141.68
.29	1.46	262.16	6.76	49.61	43.68
9	12	17	17	17	17
7.40	26.10	81.36	5.51	48.25	34.28
7.95	25.00	143.67	5.36	38.71	28.28
7.55	28.10	142.68	5.37	79.40	45.47
0.00	27.90	135.55	5.37	75.44	44.91
0.00	28.00	123.64	5.21	69.11	42.41
7.70	0.00	75.35	5.35	44.75	35.41
7.75	26.60	140.30	5.86	81.27	37.41

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
CKF- 5	5/16/78	2057.90	462.90
	9/25/78	1917.40	565.80
	12/ 5/78	848.20	364.00
	3/22/79	2240.40	606.80
	5/14/79	801.30	276.80
	9/ 4/79	1988.30	392.20
	5/14/80	2401.30	0.00
	9/16/80	737.30	318.90
	1/13/82	1980.80	508.10
	2/11/82	2359.70	620.40
	2/11/82	2271.00	587.60
	2/11/82	2248.80	590.20
	2/11/82	2144.40	558.60
	2/11/82	2144.40	558.60
	2/11/82	2081.00	475.80
	2/11/82	2081.00	462.60
	3/24/82	2266.90	110.00
	5/13/82	2044.90	657.40
MEAN		1923.06	477.45
STANDARD DEVIATION		535.43	145.19
NUMBER OF VALUES		18	17
CKF- 6	5/16/78	176.90	158.00
	9/26/78	270.70	125.70
	12/ 7/78	256.70	235.60
	1/ 3/79	275.40	230.40
	1/ 3/79	247.20	218.60
	3/19/79	171.40	159.80
	5/15/79	278.30	249.30

WATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
89.00	0.00	0.00	4751.00
93.00	40.83	0.00	4301.00
0.00	32.31	0.00	2073.00
82.50	42.31	0.00	0.00
93.50	30.73	.42	2070.00
34.00	38.13	0.00	4561.00
0.00	0.00	0.00	0.00
101.00	10.23	.18	1686.00
80.50	0.00	.05	4330.00
74.50	36.40	.02	5107.00
77.50	37.20	.02	4908.00
73.00	40.80	.02	5063.00
66.00	38.00	.02	4673.00
63.50	36.60	.02	4682.00
69.00	20.00	.02	4545.00
74.00	38.00	.02	4575.00
92.00	39.04	.05	5001.00
75.50	40.36	.03	4680.00
77.41	34.74	.07	4187.88
15.84	8.73	.12	1140.07
16	15	12	16
125.00	14.42	0.00	693.00
17.00	19.24	0.00	685.00
0.00	29.69	0.00	925.00
101.00	26.99	0.00	905.00
103.00	28.12	0.00	839.00
164.50	18.66	0.00	606.00
92.00	26.82	.22	979.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OKF- 6	9/20/79	1400.00
	9/ 9/80	1320.00
MEAN		1278.44
STANDARD DEVIATION		306.80
NUMBER OF VALUES		9
OKF- 7	12/ 7/78	430.00
	1/17/79	0.00
	1/17/79	0.00
	2/ 8/79	0.00
	2/ 8/79	0.00
	3/20/79	541.00
	5/14/79	521.00
	9/ 4/79	520.00
MEAN		503.00
STANDARD DEVIATION		49.62
NUMBER OF VALUES		4
OKF- 8	5/16/78	1260.00
MEAN		1260.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
OKF- 13	5/17/78	3860.00
	9/26/78	3590.00
	12/ 4/78	3870.00
	3/19/79	4440.00
	5/14/79	3890.00
	9/ 4/79	3060.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.55	25.50	128.52	9.96	72.68	39.19
8.20	25.80	124.86	5.88	69.49	42.83
7.73	26.63	121.77	5.99	64.34	38.91
.27	1.23	25.73	1.51	16.03	5.65
7	8	9	9	9	9
7.35	24.00	21.02	3.49	52.76	6.91
0.00	0.00	29.23	3.91	65.67	21.38
0.00	0.00	19.44	3.35	78.07	7.28
0.00	25.00	25.14	4.14	69.89	10.00
0.00	25.00	43.43	3.91	65.79	16.20
7.45	24.00	19.57	3.38	80.35	8.40
7.15	24.20	22.05	3.78	85.36	8.09
7.75	24.10	17.17	2.82	85.83	6.94
7.43	24.38	24.63	3.60	72.97	10.65
.25	.48	8.47	.42	11.48	5.31
4	6	8	8	8	8
7.35	27.00	187.96	5.93	85.24	54.62
7.35	27.00	187.96	5.93	85.24	54.62
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
7.25	24.50	571.59	15.21	122.39	97.35
7.10	28.20	624.51	16.33	173.79	97.61
7.65	28.50	668.33	15.30	162.53	101.05
7.45	28.40	673.85	15.77	183.80	102.97
7.50	28.60	632.55	17.22	172.13	103.62
7.55	0.00	415.35	11.34	84.08	71.66

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)
OKF- 6	9/20/79	289.70
	9/ 9/80	258.60
MEAN		247.21
STANDARD DEVIATION		43.34
NUMBER OF VALUES		9
OKF- 7	12/ 7/78	20.60
	1/17/79	61.00
	1/17/79	20.00
	2/ 8/79	19.10
	2/ 8/79	26.40
	3/20/79	17.00
	5/14/79	47.60
	9/ 4/79	86.20
MEAN		37.24
STANDARD DEVIATION		25.35
NUMBER OF VALUES		8
OKF- 8	5/16/78	340.60
MEAN		340.60
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
OKF- 13	5/17/78	1181.80
	9/26/78	1207.20
	12/ 4/78	1160.20
	3/19/79	1272.30
	5/14/79	1135.20
	9/ 4/79	798.40

FOR WELLHEAD WATER SAMPLES (CONTINUED)

DISSOLVED SULFATE (MG/L AS SO4)	ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
240.70	89.00	34.62	0.00	919.00
211.70	131.00	32.59	.33	891.00
203.31	102.81	25.68	.28	826.89
44.11	42.71	6.81	.08	131.56
9	8	9	2	9
5.00	0.00	.94	0.00	268.00
5.00	190.00	7.58	0.00	416.00
95.60	241.50	.56	0.00	317.00
12.70	0.00	1.80	0.00	314.00
35.80	0.00	5.69	0.00	349.00
22.80	240.50	.82	0.00	332.00
143.60	256.00	.49	.82	336.00
5.00	253.00	.46	0.00	358.00
40.69	236.20	2.29	.82	336.25
51.48	26.72	2.76	0.00	42.32
8	5	8	1	8
230.10	121.00	17.84	0.00	1134.00
230.10	121.00	17.84	0.00	1134.00
0.00	0.00	0.00	0.00	0.00
1	1	1	0	1
277.50	108.00	24.49	0.00	2875.00
339.90	105.50	19.73	0.00	2683.00
441.30	0.00	31.35	0.00	2703.00
612.80	120.00	30.56	0.00	2724.00
222.00	101.00	31.46	.42	2852.00
219.60	55.50	18.88	0.00	1819.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OKF- 13	5/14/80	0.00
	9/ 9/80	3740.00
	1/13/82	4518.00
	5/13/82	2336.00
MEAN		3700.44
STANDARD DEVIATION		669.99
NUMBER OF VALUES		9
OKF- 15	5/17/78	1910.00
	9/26/78	2040.00
	12/ 7/78	2040.00
	3/21/79	2440.00
	5/15/79	2140.00
	9/ 5/79	2380.00
	9/19/80	0.00
MEAN		2158.33
STANDARD DEVIATION		209.04
NUMBER OF VALUES		6
OKF- 16	9/26/78	663.00
	12/ 5/78	848.00
	5/13/80	0.00
MEAN		755.50
STANDARD DEVIATION		130.81
NUMBER OF VALUES		2
OKF- 17	5/17/78	723.00
	9/26/78	700.00
	12/ 5/78	898.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
0.00	28.80	0.00	0.00	0.00	0.00
7.85	29.70	664.41	17.85	165.42	112.57
6.95	28.10	681.60	16.02	161.90	106.72
0.00	26.10	217.20	8.80	58.10	44.00
7.41	27.88	572.15	14.87	142.68	93.06
.30	1.58	156.94	2.92	44.45	21.64
8	9	9	9	9	9
7.40	28.40	250.52	7.87	101.33	67.07
7.30	28.60	281.69	8.78	110.47	74.17
7.65	28.80	271.98	8.27	110.39	71.44
7.85	28.80	281.48	8.14	106.66	75.75
7.85	28.40	357.63	8.81	109.01	88.18
7.40	28.90	263.16	9.94	106.17	57.69
0.00	29.70	625.15	18.90	178.34	111.66
7.58	28.80	333.09	10.10	117.48	77.99
.24	.44	133.32	3.94	27.02	17.47
6	7	7	7	7	7
7.55	26.10	110.43	9.40	20.29	30.66
8.20	26.00	105.43	9.05	18.22	29.27
0.00	28.00	0.00	0.00	0.00	0.00
7.88	26.70	107.93	9.23	19.26	29.97
.46	1.13	3.54	.25	1.46	.98
2	3	2	2	2	2
7.75	26.10	101.30	8.53	24.63	29.80
7.25	26.30	109.93	9.07	26.05	30.36
7.65	0.00	102.74	8.78	23.54	29.14

APPENDIX 11. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
OKF- 13	5/14/80	1123.50	0.00
	9/ 9/80	1106.80	294.30
	1/13/82	1080.40	324.20
	5/13/82	393.50	177.20
MEAN		1045.93	323.20
STANDARD DEVIATION		261.32	133.84
NUMBER OF VALUES		10	9
OKF- 15	5/17/78	486.80	277.50
	9/26/78	478.60	339.70
	12/ 7/78	0.00	198.60
	3/21/79	500.80	677.80
	5/15/79	465.10	366.00
	9/ 5/79	527.30	314.40
	9/19/80	1266.20	563.50
MEAN		620.80	391.07
STANDARD DEVIATION		316.89	168.84
NUMBER OF VALUES		6	7
OKF- 16	9/26/78	88.50	173.00
	12/ 5/78	91.90	151.00
	5/13/80	95.00	0.00
MEAN		91.80	162.00
STANDARD DEVIATION		3.25	15.56
NUMBER OF VALUES		3	2
OKF- 17	5/17/78	110.70	158.00
	9/26/78	103.30	173.00
	12/ 5/78	102.00	161.90

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
0.00	0.00	0.00	0.00
94.00	35.98	.08	2997.00
91.00	0.00	.06	2595.00
121.50	12.64	.02	1029.00
99.56	25.64	.15	2475.22
20.88	8.00	.19	639.09
8	8	4	9
94.00	27.99	0.00	1444.00
91.50	27.88	0.00	1496.00
0.00	34.01	0.00	1492.00
90.50	34.48	0.00	1484.00
83.50	32.27	.19	1481.00
83.00	32.15	0.00	1519.00
106.00	27.93	.13	2749.00
91.42	30.96	.16	1666.43
8.41	2.95	.04	477.90
6	7	2	7
149.00	10.74	0.00	518.00
0.00	11.00	0.00	538.00
0.00	0.00	0.00	0.00
149.00	10.87	0.00	528.00
0.00	.18	0.00	14.14
1	2	0	2
144.50	14.00	0.00	582.00
142.50	16.37	0.00	560.00
0.00	15.82	0.00	554.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
DKF- 17	1/16/79	0.00
	1/16/79	0.00
	3/21/79	924.00
	5/15/79	908.00
	9/ 5/79	908.00
	5/13/80	0.00
	9/ 9/80	897.00
	1/12/82	0.00
MEAN		851.14
STANDARD DEVIATION		96.04
NUMBER OF VALUES		7
DKF- 18	5/18/78	658.00
	12/ 8/78	582.00
	3/21/79	483.00
	3/21/79	0.00
	3/21/79	0.00
	5/16/79	656.00
MEAN		594.75
STANDARD DEVIATION		82.47
NUMBER OF VALUES		4
DKF- 19	5/18/78	390.00
	12/ 8/78	750.00
	3/21/79	663.00
	4/ 4/79	0.00
	4/ 4/79	0.00
	5/16/79	602.00
	11/29/79	1360.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
0.00	0.00	108.79	9.16	24.58	30.28
0.00	0.00	116.75	9.80	21.46	27.37
8.20	26.40	108.61	8.73	22.29	28.77
7.80	26.10	107.42	9.46	22.59	29.78
7.15	26.60	108.92	8.47	23.07	24.29
0.00	28.00	0.00	0.00	0.00	0.00
8.25	27.10	105.50	10.25	23.24	29.97
0.00	0.00	117.10	9.67	18.80	26.59
7.72	26.66	108.71	9.19	23.03	28.64
.42	.69	5.15	.59	1.99	1.97
7	7	10	10	10	10
7.15	23.90	55.93	7.82	36.10	28.90
7.75	25.60	50.72	6.83	31.13	29.45
7.20	23.30	53.00	6.47	31.44	25.34
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
7.80	24.30	56.93	7.80	33.97	29.86
7.48	24.28	54.15	7.23	33.16	28.39
.35	.97	2.83	.69	2.34	2.07
4	4	4	4	4	4
8.20	23.90	33.41	5.92	18.98	11.78
7.60	26.00	56.09	2.88	50.66	31.84
8.15	24.50	44.10	5.06	39.30	29.50
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
7.45	24.10	43.64	5.26	36.64	29.05
0.00	0.00	50.28	2.33	49.73	31.59

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD WATER SAMPLES (CONTINUED)

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)	ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
OKF- 17	1/16/79	106.50	0.00	130.00	19.43	0.00	570.00
	1/16/79	102.90	0.00	142.50	16.03	0.00	546.00
	3/21/79	133.70	160.10	141.00	16.02	0.00	572.00
	5/15/79	107.40	140.60	137.00	17.84	.14	528.00
	9/ 5/79	109.30	166.70	134.50	7.89	0.00	576.00
	5/13/80	116.70	0.00	0.00	0.00	0.00	0.00
	9/ 9/80	105.20	160.10	129.00	18.27	.19	595.00
	1/12/82	120.40	141.50	153.00	0.00	.09	543.00
MEAN		110.74	157.74	139.33	15.74	.14	562.60
STANDARD DEVIATION		9.55	11.33	7.57	3.35	.05	20.24
NUMBER OF VALUES		11	8	9	9	3	10
OKF- 18	5/18/78	73.20	14.30	240.00	6.52	0.00	444.00
	12/ 8/78	62.50	30.40	0.00	8.26	0.00	386.00
	3/21/79	72.30	18.90	169.50	4.87	0.00	358.00
	3/21/79	65.80	0.00	0.00	0.00	0.00	0.00
	3/21/79	122.30	0.00	0.00	0.00	0.00	0.00
	5/16/79	86.10	18.70	216.50	6.89	.30	425.00
MEAN		80.23	20.58	208.67	6.63	.30	403.25
STANDARD DEVIATION		22.19	6.89	35.90	1.39	0.00	38.64
NUMBER OF VALUES		6	4	3	4	1	4
OKF- 19	5/18/78	60.60	6.90	135.50	5.43	0.00	258.00
	12/ 8/78	119.30	145.10	0.00	19.21	0.00	501.00
	3/21/79	93.00	66.60	165.50	12.64	0.00	410.00
	4/ 4/79	66.20	0.00	325.50	0.00	0.00	0.00
	4/ 4/79	99.00	0.00	0.00	0.00	0.00	0.00
	5/16/79	70.20	46.90	167.00	11.87	.19	417.00
	11/29/79	108.20	119.70	89.00	13.32	.04	471.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
MEAN		753.00
STANDARD DEVIATION		364.39
NUMBER OF VALUES		5
OKF- 22	5/14/70	1350.00
	10/22/70	1400.00
	5/14/71	1360.00
	11/10/71	1250.00
	5/12/72	1370.00
	10/19/72	1370.00
	5/18/78	1260.00
	9/25/78	1130.00
	12/ 6/78	1300.00
	3/26/79	1330.00
	9/ 6/79	1330.00
	5/12/80	0.00
	9/15/80	0.00
MEAN		1313.64
STANDARD DEVIATION		76.59
NUMBER OF VALUES		11
OKF- 23	5/14/70	1800.00
	10/30/70	1770.00
	5/14/71	1820.00
	11/10/71	1790.00
	5/12/72	1800.00
	10/19/72	1800.00
	5/15/78	1480.00
	9/25/78	1330.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.85	24.63	45.50	4.29	39.06	26.75
.38	.95	8.46	1.58	12.82	8.46
4	4	5	5	5	5
0.00	26.00	0.00	0.00	0.00	0.00
0.00	24.00	0.00	0.00	0.00	0.00
0.00	26.00	0.00	0.00	0.00	0.00
0.00	25.00	0.00	0.00	0.00	0.00
0.00	26.50	0.00	0.00	0.00	0.00
0.00	26.50	0.00	0.00	0.00	0.00
7.35	0.00	160.77	8.04	48.25	36.56
7.25	26.70	168.39	7.55	54.89	42.15
7.85	26.40	151.07	7.34	50.34	36.41
7.85	26.70	156.61	6.71	53.89	37.36
7.85	26.80	152.73	3.51	45.51	33.26
0.00	29.50	0.00	0.00	0.00	0.00
8.25	25.20	148.72	6.55	66.49	43.54
7.73	26.28	156.38	6.62	53.23	38.21
.37	1.32	7.26	1.62	7.37	3.88
6	12	6	6	6	6
0.00	26.00	0.00	0.00	0.00	0.00
0.00	26.00	0.00	0.00	0.00	0.00
0.00	26.00	0.00	0.00	0.00	0.00
0.00	26.00	0.00	0.00	0.00	0.00
0.00	26.50	0.00	8.20	0.00	0.00
0.00	26.50	0.00	0.00	0.00	0.00
7.30	26.40	223.02	8.14	62.98	48.04
7.55	24.70	227.58	8.56	67.54	51.41

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
MEAN		68.07	77.04
STANDARD DEVIATION		22.64	55.65
NUMBER OF VALUES		7	5
OKF- 22	5/14/70	245.00	0.00
	10/22/70	297.00	0.00
	5/14/71	238.00	0.00
	11/10/71	335.00	0.00
	5/12/72	240.00	0.00
	10/19/72	240.00	0.00
	5/18/78	0.00	213.60
	9/25/78	260.40	234.30
	12/ 6/78	251.80	195.40
	3/26/79	264.90	207.60
	9/ 6/79	0.00	209.00
	5/12/80	271.20	0.00
	9/15/80	248.60	233.30
MEAN		262.90	215.53
STANDARD DEVIATION		29.59	15.38
NUMBER OF VALUES		11	6
OKF- 23	5/14/70	358.00	0.00
	10/30/70	378.00	0.00
	5/14/71	345.00	0.00
	11/10/71	367.00	0.00
	5/12/72	370.00	0.00
	10/19/72	360.00	0.00
	5/15/78	401.80	229.90
	9/25/78	394.20	227.70

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
176.50	12.49	.12	411.40
89.09	4.90	.11	93.74
5	5	2	5
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
104.50	19.29	0.00	959.00
104.50	17.49	0.00	942.00
0.00	22.51	0.00	841.00
91.00	29.57	0.00	0.00
86.50	34.52	0.00	884.00
0.00	0.00	0.00	0.00
93.00	13.93	.10	815.00
95.90	22.89	.10	888.20
8.20	7.78	0.00	62.27
5	6	1	5
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
111.00	13.62	0.00	1111.00
116.00	18.00	0.00	1086.00

APPENDIX 11. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OKF- 23	12/ 5/78	1650.00
	3/21/79	1760.00
	5/17/79	1670.00
	9/ 5/79	1720.00
	5/12/80	0.00
	9/15/80	0.00
	5/13/82	1792.00
MEAN		1706.31
STANDARD DEVIATION		146.64
NUMBER OF VALUES		13
OKF- 24	5/14/70	6000.00
	10/30/70	6438.00
	5/14/71	4810.00
	11/ 9/71	6000.00
	5/12/72	5600.00
	10/19/72	5500.00
	5/15/78	4500.00
	9/29/78	3830.00
	12/14/78	4880.00
	3/22/79	4800.00
	5/18/79	5130.00
	9/ 5/79	4330.00
MEAN		5151.50
STANDARD DEVIATION		7/3.28
NUMBER OF VALUES		12
OKF- 25	9/25/78	1120.00
	12/ 6/78	1520.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.85	26.60	224.25	7.75	69.71	49.86
8.10	26.50	214.45	7.42	64.16	47.74
7.65	26.20	270.93	8.53	60.82	54.25
7.70	26.70	199.74	8.12	63.57	38.26
0.00	26.90	0.00	0.00	0.00	0.00
8.05	26.50	190.17	8.16	68.93	44.76
0.00	26.10	195.20	7.40	57.80	42.00
7.74	26.24	218.17	8.03	64.44	47.04
.28	.51	25.63	.42	4.10	5.19
7	15	8	9	8	8
0.00	27.00	0.00	0.00	0.00	0.00
0.00	26.00	0.00	0.00	0.00	0.00
0.00	26.00	0.00	0.00	0.00	0.00
0.00	25.00	0.00	0.00	0.00	0.00
0.00	27.00	0.00	23.00	0.00	0.00
0.00	27.00	0.00	0.00	0.00	0.00
7.65	25.70	682.28	21.68	173.24	117.22
7.45	26.00	727.72	22.41	218.96	126.74
7.95	25.80	770.69	21.27	212.85	122.79
7.75	26.10	643.99	20.44	193.43	126.48
7.55	25.70	685.36	21.43	192.07	113.35
7.35	26.40	670.82	22.18	175.25	114.45
7.62	26.14	696.81	21.77	194.30	120.17
.22	.61	45.21	.84	18.78	5.96
6	12	6	7	6	6
7.45	25.70	168.46	6.24	72.67	54.27
7.60	27.50	137.48	5.05	64.87	41.03

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
OKF- 23	12/ 5/78	0.00	212.10
	3/21/79	403.20	209.10
	5/17/79	346.40	217.70
	9/ 5/79	384.80	230.20
	5/12/80	319.00	0.00
	9/15/80	345.20	234.00
	5/13/82	342.70	220.30
MEAN		365.38	222.63
STANDARD DEVIATION		24.93	9.17
NUMBER OF VALUES		14	8
OKF- 24	5/14/70	1540.00	0.00
	10/30/70	1710.00	0.00
	5/14/71	1210.00	0.00
	11/ 9/71	1570.00	0.00
	5/12/72	1440.00	0.00
	10/19/72	1300.00	0.00
	5/15/78	1210.10	394.30
	9/29/78	1316.30	565.80
	12/14/78	0.00	476.90
	3/22/79	1235.70	500.60
	5/18/79	1269.30	193.70
	9/ 5/79	1380.10	420.10
MEAN		1380.14	425.23
STANDARD DEVIATION		165.98	128.61
NUMBER OF VALUES		11	6
OKF- 25	9/25/78	270.70	262.00
	12/ 6/78	135.90	209.50

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
0.00	19.45	0.00	1064.00
111.50	18.98	0.00	1036.00
111.50	18.26	.09	1056.00
101.50	13.23	0.00	1046.00
0.00	0.00	0.00	0.00
114.50	28.73	.06	995.00
95.50	16.48	.02	1052.00
108.79	18.34	.06	1055.75
7.46	4.81	.04	34.28
7	8	3	8
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
121.00	16.48	0.00	3077.00
122.00	21.91	0.00	3340.00
0.00	21.34	0.00	3023.00
123.00	21.25	0.00	2876.00
116.00	20.07	.45	3219.00
105.50	18.99	0.00	3532.00
117.50	20.01	.45	3177.83
7.23	2.02	0.00	236.08
5	6	1	6
92.00	18.74	0.00	979.00
0.00	0.00	0.00	826.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OKF- 25	3/26/79	1350.00
	5/16/79	1300.00
	5/12/80	0.00
	9/15/80	0.00
	1/ 8/81	1450.00
	3/24/82	1334.00
	5/10/82	1132.00
MEAN		1315.14
STANDARD DEVIATION		149.21
NUMBER OF VALUES		7
OKF- 26	4/14/68	1150.00
	9/27/78	907.00
	12/11/78	1060.00
	3/26/79	1010.00
	5/21/79	1010.00
	9/13/79	930.00
	1/13/82	894.00
MEAN		994.43
STANDARD DEVIATION		92.08
NUMBER OF VALUES		7
OKF- 27	4/14/68	1100.00
	9/27/78	812.00
	5/12/80	0.00
MEAN		956.00
STANDARD DEVIATION		203.65
NUMBER OF VALUES		2

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
8.00	26.80	125.79	5.67	48.44	32.54
7.45	25.60	138.97	7.15	48.90	38.07
0.00	26.80	0.00	0.00	0.00	0.00
8.35	29.00	155.45	6.07	86.62	62.62
8.00	29.60	159.61	6.07	78.88	50.84
7.95	26.20	140.00	7.00	52.80	38.80
6.95	26.40	145.10	7.76	52.30	38.50
7.72	27.07	146.36	6.38	63.19	44.58
.44	1.40	13.86	.88	14.81	10.20
8	9	8	8	8	8
7.50	0.00	145.00	9.90	30.00	36.00
8.25	25.70	145.17	9.18	30.86	33.48
7.55	25.60	139.32	8.95	29.68	32.24
7.60	24.60	126.78	8.58	28.87	30.46
7.80	26.10	138.97	8.72	33.08	36.62
7.65	24.20	110.40	0.00	15.70	31.06
7.15	23.20	96.10	6.16	52.90	21.49
7.64	24.90	128.82	8.58	31.58	31.62
.33	1.10	18.96	1.27	10.98	5.04
7	6	7	6	7	7
7.20	0.00	139.00	9.20	30.00	36.00
7.95	0.00	121.12	8.32	29.26	32.01
0.00	0.00	0.00	0.00	0.00	0.00
7.58	0.00	130.06	8.76	29.63	34.01
.53	0.00	12.64	.62	.52	2.82
2	0	2	2	2	2

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4
OKF- 25	3/26/79	248.70	85.80
	5/16/79	223.40	181.60
	5/12/80	276.10	0.00
	9/15/80	296.90	284.90
	1/ 8/81	272.70	261.40
	3/24/82	251.80	173.90
	5/10/82	212.20	196.90
MEAN		243.16	207.00
STANDARD DEVIATION		48.17	63.91
NUMBER OF VALUES		9	8
OKF- 26	4/14/68	182.00	180.00
	9/27/78	169.30	176.80
	12/11/78	177.40	160.30
	3/26/79	136.40	0.00
	5/21/79	186.00	177.60
	9/13/79	124.10	158.80
	1/13/82	132.80	69.70
MEAN		158.29	153.87
STANDARD DEVIATION		26.19	42.24
NUMBER OF VALUES		7	6
OKF- 27	4/14/68	168.00	180.00
	9/27/78	119.30	195.40
	5/12/80	166.70	0.00
MEAN		151.33	187.70
STANDARD DEVIATION		27.75	10.89
NUMBER OF VALUES		3	2

WATER SAMPLES (CONTINUED)

)	ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
	95.50	20.57	0.00	0.00
	96.00	19.38	.13	767.00
	0.00	0.00	0.00	0.00
	87.50	28.76	.18	930.00
	88.50	0.00	.12	987.00
	81.00	18.12	.02	834.00
	83.00	17.84	.11	791.00
	89.07	20.57	.11	873.43
	5.81	4.13	.06	90.53
	7	6	5	7
	122.00	10.00	0.00	694.00
	142.50	9.51	0.00	666.00
	0.00	9.93	0.00	659.00
	132.00	9.83	0.00	0.00
	124.50	11.69	.07	846.00
	123.50	4.50	0.00	614.00
	216.00	0.00	.02	528.00
	143.42	9.24	.05	667.83
	36.37	2.44	.04	104.84
	6	6	2	6
	102.00	9.80	0.00	666.00
	130.00	9.61	0.00	600.00
	0.00	0.00	0.00	0.00
	116.00	9.70	0.00	633.00
	19.80	.14	0.00	46.67
	2	2	0	2

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OKF- 29	7/11/78	0.00
	7/11/78	0.00
MEAN		0.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		0
OKF- 30	3/22/79	6230.00
	5/25/79	6740.00
	9/24/79	6370.00
	5/13/80	0.00
	9/16/80	0.00
	1/25/82	4028.00
	2/ 9/82	6972.00
MEAN		6066.00
STANDARD DEVIATION		1177.69
NUMBER OF VALUES		5
OKF- 31	3/22/79	1990.00
	5/16/79	1920.00
	9/13/79	1800.00
	5/12/80	0.00
	9/16/80	0.00
	5/13/82	2036.00
MEAN		1936.50
STANDARD DEVIATION		102.74
NUMBER OF VALUES		4
OKF- 35	5/14/70	8000.00
	5/12/72	8040.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
0.00	0.00	32.04	3.01	42.18	29.72
0.00	0.00	34.22	3.92	38.93	32.58
0.00	0.00	33.13	3.47	40.56	31.15
0.00	0.00	1.54	.64	2.30	2.02
0	0	2	2	2	2
7.45	28.80	976.66	25.17	265.60	164.26
7.35	28.60	940.47	23.68	258.22	158.25
0.00	28.80	879.00	16.95	289.34	157.66
0.00	29.10	0.00	0.00	0.00	0.00
7.65	28.80	1081.35	25.28	257.54	157.19
0.00	30.50	964.60	27.20	261.60	79.80
0.00	28.60	977.00	27.00	275.00	162.00
7.48	29.03	969.85	24.21	267.88	146.53
.15	.67	65.84	3.79	12.30	32.81
3	7	6	6	6	6
7.50	26.80	272.41	9.28	67.52	50.73
7.60	26.20	184.73	6.99	59.75	63.34
7.50	27.00	274.67	8.00	57.78	39.53
0.00	27.80	0.00	0.00	0.00	0.00
7.95	25.60	301.10	11.34	52.21	48.61
0.00	25.40	282.80	10.80	50.20	43.60
7.64	26.47	263.14	9.28	57.49	49.16
.21	.91	45.26	1.83	6.83	9.05
4	6	5	5	5	5
0.00	28.00	0.00	0.00	0.00	0.00
0.00	29.50	0.00	34.00	0.00	0.00

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
OKF- 29	7/11/78	54.00	78.30
	7/11/78	43.50	75.00
MEAN		48.75	76.65
STANDARD DEVIATION		7.42	2.33
NUMBER OF VALUES		2	2
OKF- 30	3/22/79	1770.50	665.40
	5/25/79	1739.50	539.60
	9/24/79	1772.40	444.70
	5/13/80	1912.40	0.00
	9/16/80	1779.10	668.30
	1/25/82	1945.80	664.80
	2/ 9/82	1970.20	640.20
MEAN		1841.41	603.83
STANDARD DEVIATION		97.11	92.13
NUMBER OF VALUES		7	6
OKF- 31	3/22/79	540.30	170.80
	5/16/79	440.90	243.10
	9/13/79	455.60	246.30
	5/12/80	363.00	0.00
	9/16/80	463.80	298.10
	5/13/82	410.40	243.30
MEAN		445.67	240.32
STANDARD DEVIATION		59.13	45.34
NUMBER OF VALUES		6	5
OKF- 35	5/14/70	2160.00	0.00
	5/12/72	2280.00	0.00

WATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
153.00	17.51	0.00	413.00
182.00	12.72	0.00	428.00
167.50	15.11	0.00	420.50
20.51	3.38	0.00	10.61
2	2	0	2
92.50	42.97	0.00	4205.00
93.00	38.38	.11	4403.00
86.00	45.49	0.00	4481.00
0.00	0.00	0.00	0.00
95.50	0.00	.08	3959.00
89.50	37.20	.02	4212.00
88.50	39.60	.09	4417.00
90.83	40.73	.08	4279.50
3.46	3.42	.04	193.69
6	5	4	6
102.50	20.30	0.00	0.00
102.00	9.71	.24	1246.00
101.50	17.31	0.00	1234.00
0.00	0.00	0.00	0.00
106.00	12.47	.11	1252.00
88.00	12.48	.02	1225.00
100.00	14.45	.12	1239.25
6.94	4.26	.11	12.09
5	5	3	4
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OKF- 35	10/19/72	8400.00
	5/15/78	7410.00
	9/25/78	5420.00
	12/ 5/78	6240.00
	3/21/79	6720.00
	5/17/79	6970.00
	9/ 4/79	7150.00
	5/12/80	0.00
MEAN		7150.00
STANDARD DEVIATION		947.56
NUMBER OF VALUES		9
OKF- 36	3/15/79	0.00
	3/15/79	0.00
	3/20/79	828.00
	5/15/79	724.00
	9/ 5/79	713.00
	11/29/79	0.00
MEAN		755.00
STANDARD DEVIATION		63.46
NUMBER OF VALUES		3
OKF- 37	3/20/79	509.00
	3/22/79	0.00
	3/22/79	0.00
MEAN		509.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
0.00	29.50	0.00	0.00	0.00	0.00
7.50	29.10	1140.22	30.33	258.79	167.05
6.55	28.40	1062.26	30.91	277.11	178.77
7.35	28.30	1165.03	30.72	279.03	180.46
7.75	26.50	1091.24	27.87	265.12	179.63
0.00	28.20	948.44	26.87	225.15	141.41
7.30	29.00	1035.00	27.07	271.10	183.39
0.00	29.20	0.00	0.00	0.00	0.00
7.29	28.77	1073.70	29.68	262.72	171.79
.45	.55	77.96	2.57	19.88	15.91
5	10	6	7	6	6
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
7.40	24.40	57.54	3.03	47.48	30.37
7.40	24.30	52.78	3.14	46.06	29.01
7.75	24.90	49.45	3.01	46.88	30.22
0.00	0.00	77.41	2.90	62.59	34.81
7.52	24.53	59.30	3.02	50.75	31.10
.20	.32	12.52	.10	7.91	2.55
3	3	4	4	4	4
7.20	25.90	99.71	4.39	66.72	33.24
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
7.20	25.90	99.71	4.39	66.72	33.24
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
OKF- 35	10/19/72	2200.00	0.00
	5/15/78	2321.30	564.50
	9/25/78	1999.70	615.70
	12/ 5/78	1982.70	631.60
	3/21/79	2037.00	825.50
	5/17/79	0.00	232.40
	9/ 4/79	2143.10	470.90
	5/12/80	1862.20	0.00
MEAN		2109.56	556.77
STANDARD DEVIATION		150.14	196.95
NUMBER OF VALUES		9	6
OKF- 36	3/15/79	103.90	0.00
	3/15/79	148.50	0.00
	3/20/79	124.20	73.90
	5/15/79	109.30	16.70
	9/ 5/79	109.30	48.10
	11/29/79	161.90	121.00
MEAN		126.18	64.93
STANDARD DEVIATION		23.85	44.10
NUMBER OF VALUES		6	4
OKF- 37	3/20/79	141.50	109.30
	3/22/79	65.90	0.00
	3/22/79	118.10	0.00
MEAN		108.50	109.30
STANDARD DEVIATION		38.70	0.00
NUMBER OF VALUES		3	1

WATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
0.00	0.00	0.00	0.00
90.50	22.31	0.00	5323.00
97.00	10.98	0.00	4689.00
0.00	42.55	0.00	4536.00
90.50	45.34	0.00	0.00
90.50	37.29	.62	4345.00
79.00	37.04	0.00	4953.00
0.00	0.00	0.00	0.00
89.50	32.58	.62	4789.20
6.51	13.24	0.00	381.19
5	6	1	5
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
168.00	8.41	0.00	521.00
193.50	8.56	.14	455.00
156.50	2.53	0.00	480.00
106.00	8.26	.08	595.00
156.00	6.94	.11	512.75
36.74	2.94	.04	61.21
4	4	2	4
116.00	12.90	0.00	551.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
116.00	12.90	0.00	551.00
0.00	0.00	0.00	0.00
1	1	0	1

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OKF- 40	9/26/78	559.00
	12/ 6/78	644.00
	3/23/79	758.00
	5/16/79	688.00
	9/ 5/79	720.00
	5/12/80	0.00
MEAN		673.80
STANDARD DEVIATION		76.64
NUMBER OF VALUES		5
OKF- 50	9/29/78	455.00
	12/ 5/78	562.00
	3/19/79	538.00
	5/14/80	0.00
MEAN		518.33
STANDARD DEVIATION		56.15
NUMBER OF VALUES		3
OKF- 51	3/19/79	0.00
	5/14/79	2010.00
	9/11/79	2220.00
MEAN		2115.00
STANDARD DEVIATION		148.49
NUMBER OF VALUES		2
OKF- 53	5/14/79	1540.00
	9/11/79	1400.00
	5/14/80	0.00
	9/ 9/80	1372.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.70	26.70	50.31	4.79	44.31	32.40
7.10	0.00	48.71	4.63	43.08	31.05
8.10	28.70	49.73	5.01	42.66	31.24
7.35	0.00	45.80	5.03	39.84	32.37
8.10	28.00	50.28	5.12	40.60	27.34
0.00	0.00	0.00	0.00	0.00	0.00
7.67	27.13	48.97	4.92	42.10	30.88
.45	.75	1.68	.20	1.84	2.07
5	3	5	5	5	5
8.05	25.20	30.26	2.21	48.64	26.67
7.50	25.20	25.55	2.06	43.88	26.65
7.25	25.50	31.16	2.53	47.96	29.72
0.00	26.10	0.00	0.00	0.00	0.00
7.60	25.50	28.99	2.27	46.83	27.68
.41	.42	3.01	.24	2.57	1.77
3	4	3	3	3	3
7.35	26.90	287.03	6.54	117.56	66.63
7.25	26.90	280.90	6.90	112.74	61.27
7.40	27.10	235.98	3.56	0.00	67.00
7.33	26.97	267.97	5.67	115.15	64.97
.08	.12	27.87	1.83	3.41	3.21
3	3	3	3	2	3
7.45	26.70	151.76	5.24	89.98	52.34
7.75	26.90	133.46	6.29	106.87	38.68
0.00	27.50	0.00	0.00	0.00	0.00
8.00	28.10	151.14	5.61	86.45	50.04

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
OKF- 40	9/26/78	86.00	128.70
	12/ 6/78	77.30	115.50
	3/23/79	114.50	211.30
	5/16/79	76.40	90.70
	9/ 5/79	80.50	95.40
	5/12/80	86.30	0.00
MEAN		87.17	128.32
STANDARD DEVIATION		13.91	48.86
NUMBER OF VALUES		6	5
OKF- 50	9/29/78	64.50	30.50
	12/ 5/78	46.68	9.80
	3/19/79	59.20	46.50
	5/14/80	60.20	0.00
MEAN		58.13	28.93
STANDARD DEVIATION		6.75	18.40
NUMBER OF VALUES		4	3
OKF- 51	3/19/79	595.20	343.20
	5/14/79	542.00	161.80
	9/11/79	530.70	207.70
MEAN		555.97	237.57
STANDARD DEVIATION		34.44	94.32
NUMBER OF VALUES		3	3
OKF- 53	5/14/79	315.70	239.70
	9/11/79	302.90	158.30
	5/14/80	363.00	0.00
	9/ 9/80	271.50	175.40

WATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
149.00	10.84	0.00	478.00
0.00	21.97	0.00	478.00
147.00	23.75	0.00	581.00
150.00	21.82	.10	504.00
140.50	23.55	0.00	485.00
0.00	0.00	0.00	0.00
146.63	20.39	.10	505.20
4.27	5.41	0.00	43.69
4	5	1	5
206.50	9.22	0.00	370.00
0.00	7.52	0.00	379.00
202.50	23.49	0.00	444.00
0.00	0.00	0.00	0.00
204.50	13.41	0.00	397.67
2.83	8.77	0.00	40.38
2	3	0	3
143.00	28.65	0.00	1417.00
121.50	25.49	.22	1426.00
125.50	20.73	0.00	1381.00
130.00	24.96	.22	1408.00
11.43	3.99	0.00	23.81
3	3	1	3
140.50	25.60	.15	983.00
143.00	9.65	0.00	974.00
0.00	0.00	0.00	0.00
137.00	23.21	.06	1063.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
MEAN		1437.33
STANDARD DEVIATION		90.01
NUMBER OF VALUES		3
OKF- 54	11/30/79	507.00
MEAN		507.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
OKF- 56	5/23/79	1220.00
MEAN		1220.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
OKF- 75	3/28/79	1160.00
	5/16/79	1160.00
	5/12/80	0.00
	9/15/80	0.00
	1/ 8/81	1060.00
	5/10/82	1019.00
MEAN		1099.75
STANDARD DEVIATION		71.56
NUMBER OF VALUES		4
OKF- 76	3/28/79	1670.00
	5/16/79	1425.00
	9/24/79	1510.00
	5/12/80	0.00
	9/15/80	0.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.73	27.30	145.45	5.71	94.43	47.02
.28	.63	10.39	.53	10.91	7.31
3	4	3	3	3	3
0.00	0.00	33.25	1.34	54.68	29.02
0.00	0.00	33.25	1.34	54.68	29.02
0.00	0.00	0.00	0.00	0.00	0.00
0	0	1	1	1	1
7.70	27.90	112.73	4.17	74.87	42.53
7.70	27.90	112.73	4.17	74.87	42.53
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
7.75	27.80	120.15	5.55	50.36	33.37
7.50	26.50	106.09	5.09	51.75	37.01
0.00	28.00	0.00	0.00	0.00	0.00
8.50	25.00	104.69	5.20	53.02	36.23
8.15	29.20	114.86	5.08	50.36	35.81
0.00	26.00	110.60	5.49	54.00	37.00
7.98	27.08	111.28	5.28	51.90	35.88
.44	1.53	6.37	.22	1.61	1.50
4	6	5	5	5	5
7.80	0.00	226.25	8.88	67.68	50.21
7.65	26.90	158.07	7.10	60.46	49.91
0.00	26.80	284.50	7.51	73.30	52.81
0.00	28.50	0.00	0.00	0.00	0.00
8.20	27.20	198.23	9.06	69.09	54.04

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD WAT

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
MEAN		313.28	191.13
STANDARD DEVIATION		36.00	42.92
NUMBER OF VALUES		4	3
OKF- 54	11/30/79	75.50	38.30
MEAN		75.50	38.30
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
OKF- 56	5/23/79	201.40	229.30
MEAN		201.40	229.30
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
OKF- 75	3/28/79	200.40	245.40
	5/16/79	213.50	150.50
	5/12/80	190.60	0.00
	9/15/80	196.10	153.10
	1/ 8/81	206.20	180.30
	5/10/82	201.40	169.50
MEAN		201.37	175.76
STANDARD DEVIATION		7.94	39.62
NUMBER OF VALUES		6	5
OKF- 76	3/28/79	366.60	155.50
	5/16/79	295.90	207.80
	9/24/79	455.40	259.20
	5/12/80	363.00	0.00
	9/15/80	371.50	253.40

TER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
140.17	19.49	.11	1006.67
3.01	8.60	.06	48.99
3	3	2	3
234.00	2.98	.04	0.00
234.00	2.98	.04	0.00
0.00	0.00	0.00	0.00
1	1	1	0
103.50	19.56	.11	821.00
103.50	19.56	.11	821.00
0.00	0.00	0.00	0.00
1	1	1	1
98.50	38.06	0.00	526.00
92.00	39.67	.17	753.00
0.00	0.00	0.00	0.00
90.00	2.94	.18	710.00
97.00	0.00	.05	709.00
80.50	24.76	.06	735.00
91.60	26.36	.12	686.60
7.12	16.98	.07	91.64
5	4	4	5
103.50	28.22	0.00	870.00
91.00	33.03	.29	920.00
83.00	45.59	0.00	1108.00
0.00	0.00	0.00	0.00
114.50	15.78	.13	1033.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
MEAN		1535.00
STANDARD DEVIATION		124.40
NUMBER OF VALUES		3
OKF- 77	3/29/79	955.00
	5/25/79	1030.00
	9/24/79	849.00
	5/16/80	0.00
	9/12/80	0.00
MEAN		944.67
STANDARD DEVIATION		90.94
NUMBER OF VALUES		3
ORF- 29	3/26/79	258.00
MEAN		258.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
ORF- 30	3/26/79	245.00
MEAN		245.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
ORF- 31	5/29/79	230.00
MEAN		230.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
ORF- 32	5/29/79	210.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.88	27.35	216.76	8.14	67.63	51.74
.28	.79	53.12	.98	5.34	2.01
3	4	4	4	4	4
7.60	27.20	82.37	4.88	56.78	37.36
7.60	0.00	81.67	4.45	54.59	39.81
0.00	26.70	79.75	4.31	56.46	35.22
0.00	27.80	0.00	0.00	0.00	0.00
0.00	29.60	91.58	5.31	54.32	40.17
7.60	27.83	83.84	4.74	55.54	38.14
0.00	1.27	5.28	.45	1.26	2.31
2	4	4	4	4	4
7.90	23.00	3.83	.95	37.02	4.68
7.90	23.00	3.83	.95	37.02	4.68
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
7.60	23.50	3.83	.96	25.22	12.18
7.60	23.50	3.83	.96	25.22	12.18
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
7.80	24.00	3.95	1.55	33.80	8.01
7.80	24.00	3.95	1.55	33.80	8.01
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
7.70	24.00	3.08	.84	37.44	5.11

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD WA

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
MEAN		370.48	218.98
STANDARD DEVIATION		56.67	48.16
NUMBER OF VALUES		5	4
ORF- 77	3/29/79	159.20	27.40
	5/25/79	164.10	91.50
	9/24/79	160.80	166.40
	5/16/80	156.90	0.00
	9/12/80	109.10	152.50
MEAN		150.02	109.45
STANDARD DEVIATION		23.02	63.64
NUMBER OF VALUES		5	4
ORF- 29	3/26/79	4.00	27.70
MEAN		4.00	27.70
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
ORF- 30	3/26/79	4.00	29.60
MEAN		4.00	29.60
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
ORF- 31	5/29/79	5.90	15.80
MEAN		5.90	15.80
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
ORF- 32	5/29/79	9.20	20.60

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
98.00	30.66	.21	982.75
13.86	12.33	.11	107.80
4	4	2	4
125.50	25.10	0.00	835.00
119.00	23.66	.14	651.00
110.00	25.93	0.00	633.00
0.00	0.00	0.00	0.00
141.00	33.70	.02	536.00
123.88	27.10	.08	663.75
13.07	4.50	.08	124.84
4	4	2	4
125.00	.20	0.00	135.00
125.00	.20	0.00	135.00
0.00	0.00	0.00	0.00
1	1	0	1
122.50	.20	0.00	132.00
122.50	.20	0.00	132.00
0.00	0.00	0.00	0.00
1	1	0	1
126.00	.22	.09	160.00
126.00	.22	.09	160.00
0.00	0.00	0.00	0.00
1	1	1	1
120.00	.22	.08	157.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
MEAN		210.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
OSF- 1	10/11/78	144.00
	12/ 8/78	155.00
	3/23/79	160.00
	5/31/79	145.00
	9/11/79	150.00
MEAN		150.80
STANDARD DEVIATION		6.76
NUMBER OF VALUES		5
OSF- 2	10/11/78	157.00
	12/ 4/79	1620.00
MEAN		888.50
STANDARD DEVIATION		1034.50
NUMBER OF VALUES		2
OSF- 3	4/26/74	336.00
	12/ 6/78	492.00
	3/21/79	465.00
	5/25/79	570.00
MEAN		465.75
STANDARD DEVIATION		97.28
NUMBER OF VALUES		4
OSF- 4	12/ 6/78	258.00
	3/21/79	275.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.70	24.00	3.08	.84	37.44	5.11
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
6.95	24.20	3.02	.50	28.14	5.30
7.90	24.00	3.07	.47	24.67	4.65
7.60	23.50	3.02	.81	23.63	4.68
7.70	24.00	3.03	.47	23.18	4.35
7.90	24.50	8.60	1.06	46.39	2.28
7.61	24.04	4.15	.66	29.20	4.25
.39	.36	2.49	.26	9.80	1.16
5	5	5	5	5	5
7.25	24.00	3.02	4.05	30.54	5.43
0.00	0.00	3.08	.20	29.74	6.30
7.25	24.00	3.05	2.13	30.14	5.87
0.00	0.00	.04	2.72	.57	.62
1	1	2	2	2	2
0.00	0.00	24.00	1.80	25.00	13.00
7.70	23.00	35.62	1.13	68.26	5.62
7.50	23.00	37.30	1.35	59.35	6.12
7.80	24.00	33.51	1.17	71.32	5.03
7.67	23.33	32.61	1.36	55.98	7.44
.15	.58	5.94	.31	21.27	3.73
3	3	4	4	4	4
7.80	24.00	7.26	.56	27.58	6.20
7.60	24.00	13.28	.83	31.60	6.12

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
MEAN		9.20	20.60
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
OSF- 1	10/11/78	4.00	19.90
	12/ 8/78	4.00	5.00
	3/23/79	4.00	34.70
	5/31/79	5.40	64.70
	9/11/79	10.80	10.00
MEAN		5.64	26.86
STANDARD DEVIATION		2.95	24.00
NUMBER OF VALUES		5	5
OSF- 2	10/11/78	4.00	20.80
	12/ 4/79	4.00	11.20
MEAN		4.00	16.00
STANDARD DEVIATION		0.00	6.79
NUMBER OF VALUES		2	2
OSF- 3	4/26/74	51.00	4.10
	12/ 6/78	53.90	5.00
	3/21/79	54.40	15.00
	5/25/79	54.60	6.00
MEAN		53.48	7.53
STANDARD DEVIATION		1.88	5.04
NUMBER OF VALUES		4	4
OSF- 4	12/ 6/78	11.90	5.00
	3/21/79	15.00	23.40

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
120.00	.22	.08	157.00
0.00	0.00	0.00	0.00
1	1	1	1
82.00	.29	0.00	105.00
0.00	.27	0.00	104.00
89.00	.20	0.00	74.00
75.50	.22	.08	106.00
137.50	.64	0.00	191.00
96.00	.32	.08	116.00
28.21	.18	0.00	44.03
4	5	1	5
103.00	.29	0.00	113.00
91.50	.20	.13	110.00
97.25	.24	.13	111.50
8.13	.06	0.00	2.12
2	2	1	2
88.00	.29	0.00	189.00
0.00	.48	0.00	329.00
186.00	.46	0.00	297.00
216.50	.24	.27	342.00
163.50	.37	.27	289.25
67.14	.12	0.00	69.46
3	4	1	4
0.00	.73	0.00	137.00
117.50	.67	0.00	167.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OSF- 4	5/25/79	260.00
	9/12/79	255.00
	12/ 5/79	210.00
MEAN		255.60
STANDARD DEVIATION		27.65
NUMBER OF VALUES		5
OSF- 5	9/29/78	262.00
	12/ 8/78	265.00
	3/23/79	245.00
	5/19/79	0.00
	5/30/79	298.00
	9/ 6/79	291.00
MEAN		272.20
STANDARD DEVIATION		21.88
NUMBER OF VALUES		5
OSF- 6	9/29/78	238.00
	12/13/78	188.00
	3/20/79	240.00
	5/30/79	235.00
	9/ 6/79	255.00
	12/ 4/79	235.00
MEAN		231.83
STANDARD DEVIATION		22.73
NUMBER OF VALUES		6
OSF- 7	10/ 3/78	612.00
MEAN		612.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
8.00	24.00	11.42	.60	33.25	5.62
7.60	23.50	8.77	.41	30.08	5.71
0.00	0.00	0.00	0.00	0.00	0.00
7.75	23.88	10.18	.60	30.63	5.91
.19	.25	2.69	.17	2.41	.29
4	4	4	4	4	4
7.60	24.00	3.02	.63	47.04	7.08
7.80	24.00	2.93	.59	44.69	6.47
7.50	23.50	3.02	.92	44.36	6.61
0.00	0.00	0.00	0.00	0.00	0.00
7.70	24.00	3.08	.66	43.45	6.22
7.80	24.00	3.00	.60	45.51	4.95
7.68	23.90	3.01	.68	45.01	6.27
.13	.22	.05	.14	1.35	.80
5	5	5	5	5	5
7.70	24.50	3.71	.75	36.95	5.78
7.60	24.00	2.93	.70	34.36	5.58
7.60	23.00	4.00	1.06	33.04	5.32
7.90	24.00	3.45	1.35	28.51	4.14
7.70	24.00	3.33	.68	34.46	4.86
0.00	0.00	0.00	0.00	0.00	0.00
7.70	23.90	3.48	.91	33.46	5.14
.12	.55	.40	.29	3.11	.65
5	5	5	5	5	5
7.50	24.00	19.74	1.21	108.07	7.90
7.50	24.00	19.74	1.21	108.07	7.90
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD WATER SAMPLES (CONTINUED)

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)	ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
OSF- 4	5/25/79	20.80	7.10	108.50	.40	.10	179.00
	9/12/79	14.10	13.80	96.50	.89	0.00	154.00
	12/ 5/79	8.50	0.00	0.00	0.00	0.00	0.00
MEAN		14.06	12.33	107.50	.67	.10	159.25
STANDARD DEVIATION		4.52	8.28	10.54	.20	0.00	18.01
NUMBER OF VALUES		5	4	3	4	1	4
OSF- 5	9/29/78	4.00	22.70	146.00	.29	0.00	168.00
	12/ 8/78	4.20	5.00	0.00	.20	0.00	166.00
	3/23/79	4.00	24.80	150.50	.20	0.00	162.00
	5/19/79	4.00	0.00	0.00	0.00	0.00	155.00
	5/30/79	5.90	16.40	151.50	.22	.07	178.00
	9/ 6/79	7.50	12.50	100.50	.19	0.00	168.00
MEAN		4.93	16.28	137.13	.22	.07	166.17
STANDARD DEVIATION		1.46	7.99	24.53	.04	0.00	7.60
NUMBER OF VALUES		6	5	4	5	1	6
OSF- 6	9/29/78	6.30	19.10	105.00	.38	0.00	136.00
	12/13/78	7.00	8.20	0.00	.20	0.00	151.00
	3/20/79	7.30	26.10	89.50	.31	0.00	176.00
	5/30/79	8.70	18.70	104.50	.22	.47	158.00
	9/ 6/79	6.60	16.60	97.50	.27	0.00	169.00
	12/ 4/79	7.90	0.00	0.00	0.00	0.00	0.00
MEAN		7.33	17.74	99.13	.28	.47	158.00
STANDARD DEVIATION		.65	6.42	7.27	.07	0.00	15.64
NUMBER OF VALUES		6	5	4	5	1	5
OSF- 7	10/ 3/78	22.80	19.60	312.50	.59	0.00	385.00
MEAN		22.80	19.60	312.50	.59	0.00	385.00
STANDARD DEVIATION		0.00	0.00	0.00	0.00	0.00	0.00
NUMBER OF VALUES		1	1	1	1	0	1

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OSF- 8	10/ 4/78	188.00
	12/ 8/78	185.00
	3/20/79	205.00
	5/30/79	165.00
	9/ 4/79	192.00
	12/ 4/79	180.00
MEAN		185.83
STANDARD DEVIATION		13.26
NUMBER OF VALUES		6
OSF- 9	4/13/72	286.00
	10/10/78	222.00
	12/11/78	220.00
	3/20/79	245.00
	5/14/79	0.00
	5/31/79	220.00
	9/11/79	245.00
MEAN		239.67
STANDARD DEVIATION		25.65
NUMBER OF VALUES		6
OSF- 10	8/17/76	240.00
	8/17/76	242.00
	9/ 4/77	232.00
	10/10/78	205.00
	12/11/78	205.00
	3/20/79	225.00
	12/ 4/79	220.00
MEAN		224.14
STANDARD DEVIATION		15.18
NUMBER OF VALUES		7

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
8.00	23.50	3.02	.58	28.46	6.64
8.10	24.00	3.07	.53	25.97	6.07
7.90	23.00	3.02	.73	24.27	5.97
7.90	24.00	3.03	.49	24.25	5.79
7.80	24.00	3.00	0.00	25.00	4.86
0.00	0.00	0.00	0.00	0.00	0.00
7.94	23.70	3.03	.58	25.59	5.87
.11	.45	.03	.11	1.75	.65
5	5	5	4	5	5
8.40	25.50	20.00	1.40	60.00	7.10
7.40	24.00	5.05	.78	37.75	5.95
8.22	24.00	6.59	.78	34.20	5.53
7.40	23.50	4.66	.92	31.28	5.36
0.00	0.00	0.00	0.00	0.00	0.00
7.80	24.00	3.87	.68	32.87	5.31
7.80	24.00	3.50	.75	34.81	4.31
7.80	24.17	7.28	.89	38.49	5.59
.42	.68	6.33	.26	10.76	.91
6	6	6	6	6	6
0.00	25.00	5.90	.80	33.00	5.00
0.00	30.00	0.00	0.00	0.00	0.00
7.10	24.00	5.60	.90	33.00	5.50
7.50	24.00	4.54	.70	36.79	5.95
8.10	24.00	5.75	.70	32.75	5.40
7.50	23.50	4.00	.66	28.73	4.97
0.00	0.00	0.00	0.00	0.00	0.00
7.55	25.08	5.16	.75	32.85	5.36
.41	2.46	.84	.10	2.85	.40
4	8	5	5	5	5

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
OSF- 6	10/ 4/78	4.00	22.70
	12/ 6/78	4.40	9.70
	3/20/79	4.00	0.00
	5/30/79	5.40	69.40
	9/ 4/79	7.70	16.10
	12/ 4/79	5.40	0.00
MEAN		5.15	29.48
STANDARD DEVIATION		1.40	27.14
NUMBER OF VALUES		6	4
OSF- 9	4/13/72	12.00	0.00
	10/10/78	4.70	18.50
	12/11/78	5.80	5.00
	3/20/79	4.20	16.90
	5/14/79	4.00	0.00
	5/31/79	7.30	67.90
	9/11/79	5.50	13.30
MEAN		6.21	24.32
STANDARD DEVIATION		2.79	24.91
NUMBER OF VALUES		7	5
OSF- 10	8/17/76	5.90	3.00
	8/17/76	0.00	0.00
	9/ 4/77	5.70	1.30
	10/10/78	4.70	18.50
	12/11/78	5.00	5.00
	3/20/79	4.00	8.50
	12/ 4/79	6.20	0.00
MEAN		5.25	6.86
STANDARD DEVIATION		.83	6.80
NUMBER OF VALUES		6	5

WATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
80.50	.42	0.00	115.00
0.00	.66	0.00	117.00
86.50	.60	0.00	101.00
74.50	.36	.06	116.00
72.50	.39	0.00	119.00
0.00	0.00	0.00	0.00
78.50	.49	.06	113.60
6.32	.13	0.00	7.20
4	5	1	5
205.00	0.00	0.00	259.00
117.50	.29	0.00	137.00
0.00	.29	0.00	134.00
124.00	.25	0.00	158.00
0.00	0.00	0.00	138.00
110.00	.22	.10	225.00
115.00	.20	0.00	152.00
134.30	.25	.10	171.86
39.84	.04	0.00	49.66
5	5	1	7
112.00	.22	0.00	127.00
0.00	0.00	0.00	174.00
110.00	.17	0.00	126.00
113.50	.29	0.00	131.00
0.00	.29	0.00	134.00
114.50	.20	0.00	125.00
0.00	0.00	0.00	0.00
112.50	.23	0.00	136.17
1.96	.05	0.00	18.84
4	5	0	6

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
GSF- 11	9/29/78	180.00
	12/ 8/78	168.00
	1/24/79	0.00
	1/24/79	0.00
	3/20/79	195.00
	5/30/79	160.00
	9/10/79	225.00
	12/ 4/79	194.00
MEAN		187.00
STANDARD DEVIATION		23.22
NUMBER OF VALUES		6
GSF- 12	5/ 4/73	280.00
	5/ 4/73	280.00
	1/ 4/74	310.00
	1/ 4/74	310.00
	12/ 6/78	305.00
	3/22/79	302.00
	11/16/79	0.00
MEAN		297.83
STANDARD DEVIATION		14.15
NUMBER OF VALUES		6
GSF- 13	12/ 6/78	285.00
MEAN		285.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
GSF- 14	12/ 8/78	305.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.60	24.50	3.02	.59	29.42	6.25
7.90	0.00	3.07	.57	27.10	5.71
0.00	0.00	3.84	.68	25.24	5.88
0.00	0.00	4.17	1.01	27.21	5.88
7.70	22.00	3.02	.99	25.54	5.62
7.90	24.00	4.44	.63	26.33	5.58
7.90	24.00	3.00	.53	27.63	4.74
0.00	0.00	3.14	.30	26.58	5.55
7.80	23.63	3.46	.66	26.88	5.65
.14	1.11	.59	.24	1.31	.43
5	4	8	8	8	8
0.00	23.00	0.00	0.00	0.00	0.00
0.00	23.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
7.80	24.00	11.63	1.27	48.40	2.25
7.40	24.50	12.28	1.47	47.87	2.35
0.00	0.00	0.00	0.00	0.00	0.00
7.60	23.63	11.96	1.37	48.14	2.30
.28	.75	.46	.14	.37	.07
2	4	2	2	2	2
7.60	24.00	3.40	.79	46.30	7.31
7.60	24.00	3.40	.79	46.30	7.31
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
7.60	24.00	4.24	.90	51.63	7.84

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
OSF- 11	9/29/78	4.90	17.10
	12/ 8/78	5.80	5.90
	1/24/79	4.00	0.00
	1/24/79	4.30	0.00
	3/20/79	4.20	29.80
	5/30/79	7.00	17.50
	9/10/79	5.70	15.80
	12/ 4/79	0.00	11.20
MEAN		5.13	16.22
STANDARD DEVIATION		1.09	7.98
NUMBER OF VALUES		7	6
OSF- 12	5/ 4/73	18.00	0.00
	5/ 4/73	18.00	0.00
	1/ 4/74	14.00	0.00
	1/ 4/74	14.00	0.00
	12/ 6/78	11.90	5.00
	3/22/79	11.30	12.20
	11/16/79	11.00	0.00
MEAN		14.03	8.60
STANDARD DEVIATION		2.96	5.09
NUMBER OF VALUES		7	2
OSF- 13	12/ 8/78	5.40	5.00
MEAN		5.40	5.00
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
OSF- 14	12/ 8/78	5.60	25.90

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
86.00	.29	0.00	109.00
0.00	.22	0.00	111.00
82.00	.28	0.00	97.00
80.50	.32	0.00	181.00
86.50	.20	0.00	148.00
89.00	.22	.07	122.00
81.50	.19	0.00	106.00
77.00	.20	.04	111.00
83.21	.24	.06	123.38
4.13	.05	.02	27.71
7	8	2	8
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	.28	0.00	193.00
156.00	.24	0.00	180.00
0.00	0.00	0.00	0.00
156.00	.26	0.00	186.50
0.00	.03	0.00	9.19
1	2	0	2
0.00	.27	0.00	178.00
0.00	.27	0.00	178.00
0.00	0.00	0.00	0.00
0	1	0	1
0.00	.85	0.00	205.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OSF- 14	3/20/79	325.00
	5/30/79	345.00
	9/10/79	310.00
MEAN		321.25
STANDARD DEVIATION		17.97
NUMBER OF VALUES		4
OSF- 15	1/ 9/74	789.00
	12/12/78	628.00
	3/22/79	660.00
	9/13/79	695.00
	12/ 5/79	930.00
MEAN		780.40
STANDARD DEVIATION		121.77
NUMBER OF VALUES		5
OSF- 16	12/13/78	276.00
	3/27/79	245.00
	9/13/79	190.00
	11/19/79	210.00
MEAN		230.75
STANDARD DEVIATION		38.64
NUMBER OF VALUES		4
OSF- 17	12/13/78	312.00
	3/27/79	340.00
MEAN		326.00
STANDARD DEVIATION		19.80
NUMBER OF VALUES		2

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.60	23.00	3.50	1.27	48.34	7.79
7.60	24.00	3.61	.99	49.10	7.75
7.80	24.00	3.00	.89	49.02	6.51
7.65	23.75	3.59	1.01	49.52	7.47
.10	.50	.51	.18	1.45	.64
4	4	4	4	4	4
7.80	23.00	65.00	3.80	55.00	27.00
7.70	24.00	66.83	3.24	41.14	16.72
7.70	24.00	91.99	4.05	57.27	25.69
7.60	23.50	41.22	1.90	32.71	17.94
0.00	0.00	0.00	0.00	0.00	0.00
7.70	23.63	66.26	3.25	46.53	21.84
.06	.48	20.74	.96	11.65	5.26
4	4	4	4	4	4
7.90	24.00	2.93	.79	29.19	5.76
7.90	23.50	5.82	1.15	29.21	5.99
7.70	24.00	3.00	.78	27.98	5.74
0.00	0.00	0.00	0.00	0.00	0.00
7.83	23.83	3.92	.91	28.79	5.83
.12	.29	1.65	.21	.70	.14
3	3	3	3	3	3
7.50	24.00	15.15	1.21	54.38	7.80
7.60	23.50	15.43	1.50	54.40	8.14
7.55	23.75	15.29	1.36	54.39	7.97
.07	.35	.20	.21	.01	.24
2	2	2	2	2	2

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
OSF- 14	3/20/79	6.20	47.80
	5/30/79	8.10	37.00
	9/10/79	5.70	30.30
MEAN		6.40	35.25
STANDARD DEVIATION		1.16	9.53
NUMBER OF VALUES		4	4
OSF- 15	1/ 9/74	120.00	42.00
	12/12/78	104.10	7.20
	3/22/79	170.70	12.20
	9/13/79	64.80	12.50
	12/ 5/79	180.00	0.00
MEAN		127.92	18.48
STANDARD DEVIATION		47.85	15.87
NUMBER OF VALUES		5	4
OSF- 16	12/13/78	5.80	5.00
	3/27/79	5.20	33.30
	9/13/79	10.80	12.50
	11/19/79	6.70	0.00
MEAN		7.13	16.93
STANDARD DEVIATION		2.53	14.66
NUMBER OF VALUES		4	3
OSF- 17	12/13/78	17.00	10.40
	3/27/79	16.80	37.50
MEAN		16.90	23.95
STANDARD DEVIATION		.14	19.16
NUMBER OF VALUES		2	2

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
137.00	.73	0.00	202.00
138.50	.38	.11	221.00
126.50	.52	0.00	222.00
134.67	.62	.11	212.50
5.39	.21	0.00	10.47
3	4	1	4
162.00	.22	.07	468.00
0.00	1.33	0.00	354.00
162.50	2.56	0.00	577.00
167.00	.19	0.00	0.00
0.00	0.00	0.00	0.00
163.83	1.07	.07	466.33
2.75	1.12	0.00	111.51
3	4	1	3
0.00	.33	0.00	126.00
110.50	.54	0.00	127.00
96.00	.42	0.00	127.00
0.00	0.00	0.00	0.00
103.25	.43	0.00	126.67
10.25	.10	0.00	.58
2	3	0	3
0.00	.76	0.00	236.00
168.50	.94	0.00	227.00
168.50	.85	0.00	231.50
0.00	.12	0.00	6.36
1	2	0	2

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OSF- 18	12/13/78	390.00
	3/21/79	418.00
	5/25/79	445.00
	11/19/79	460.00
MEAN		428.25
STANDARD DEVIATION		30.86
NUMBER OF VALUES		4
OSF- 19	12/13/78	710.00
	3/21/79	730.00
	5/25/79	755.00
	9/12/79	685.00
	12/ 5/79	710.00
MEAN		716.00
STANDARD DEVIATION		26.12
NUMBER OF VALUES		5
OSF- 22	11/20/69	460.00
	12/ 6/79	0.00
MEAN		460.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
OSF- 24	9/11/72	412.00
	3/22/79	345.00
	4/24/79	0.00
	12/ 6/79	0.00
MEAN		378.50
STANDARD DEVIATION		47.38
NUMBER OF VALUES		2

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.40	24.00	17.50	1.39	51.95	8.33
7.40	24.00	20.73	1.58	50.74	8.27
7.80	24.00	16.56	1.31	52.38	7.71
0.00	0.00	0.00	0.00	0.00	0.00
7.53	24.00	18.93	1.43	51.69	8.10
.23	0.00	1.65	.14	.85	.34
3	3	3	3	3	3
7.50	23.50	57.27	1.74	89.08	8.42
7.60	24.00	56.69	2.09	81.83	8.58
7.80	24.00	50.78	1.70	81.52	7.75
7.50	24.00	44.51	1.43	78.82	7.76
0.00	0.00	0.00	0.00	0.00	0.00
7.60	23.86	52.31	1.74	82.81	8.13
.14	.25	5.97	.27	4.39	.44
4	4	4	4	4	4
0.00	25.00	0.00	0.00	0.00	0.00
0.00	0.00	13.22	.83	81.38	5.65
0.00	25.00	13.22	.83	81.38	5.65
0.00	0.00	0.00	0.00	0.00	0.00
0	1	1	1	1	1
0.00	0.00	0.00	0.00	0.00	0.00
7.60	22.00	20.24	10.64	37.82	2.53
0.00	0.00	15.82	.61	110.90	2.53
0.00	0.00	19.62	.76	115.61	3.08
7.60	22.00	18.56	4.00	88.11	2.71
0.00	0.00	2.39	5.75	43.62	.32
1	1	3	3	3	3

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
OSF- 18	12/13/78	33.20	15.90
	3/21/79	32.30	37.50
	5/25/79	36.00	12.20
	11/19/79	46.00	0.00
MEAN		36.88	21.87
STANDARD DEVIATION		6.28	13.86
NUMBER OF VALUES		4	3
OSF- 19	12/13/78	85.40	7.90
	3/21/79	84.50	13.60
	5/25/79	85.60	5.00
	9/12/79	83.20	12.50
	12/ 5/79	84.00	0.00
MEAN		84.54	9.75
STANDARD DEVIATION		.99	4.02
NUMBER OF VALUES		5	4
OSF- 22	11/20/69	18.00	0.00
	12/ 6/79	18.30	11.20
MEAN		18.15	11.20
STANDARD DEVIATION		.21	0.00
NUMBER OF VALUES		2	1
OSF- 24	9/11/72	16.00	0.00
	3/22/79	11.30	12.20
	4/24/79	15.70	14.30
	12/ 6/79	9.20	11.20
MEAN		13.05	12.57
STANDARD DEVIATION		3.35	1.58
NUMBER OF VALUES		4	3

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
0.00	.73	0.00	258.00
148.00	.92	0.00	253.00
147.00	.46	.29	281.00
0.00	0.00	0.00	0.00
147.50	.71	.29	264.00
.71	.23	0.00	14.93
2	3	1	3
0.00	.43	0.00	468.00
239.00	.57	0.00	448.00
239.00	.29	.09	451.00
228.00	.72	0.00	438.00
0.00	0.00	0.00	0.00
234.67	.50	.09	451.25
7.51	.18	0.00	12.47
3	4	1	4
0.00	0.00	0.00	278.00
236.50	.41	.05	298.00
236.50	.41	.05	288.00
0.00	0.00	0.00	14.14
1	1	1	2
0.00	0.00	0.00	0.00
178.50	.34	0.00	370.00
306.50	.61	0.00	0.00
295.00	.51	.19	394.00
260.00	.49	.19	382.00
70.81	.13	0.00	16.97
3	3	1	2

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OSF- 25	1/23/79	0.00
	1/23/79	0.00
MEAN		0.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		0
OSF- 26	6/19/78	0.00
MEAN		0.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		0
OSF- 27	3/21/79	610.00
	5/16/79	715.00
	5/21/79	685.00
	11/16/79	710.00
MEAN		680.00
STANDARD DEVIATION		48.48
NUMBER OF VALUES		4
OSF- 28	6/23/72	240.00
MEAN		240.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
OSF- 30	11/20/79	1220.00
MEAN		1220.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
0.00	0.00	3.00	.60	26.06	5.35
0.00	0.00	3.00	.59	26.06	5.30
0.00	0.00	3.00	.60	26.06	5.33
0.00	0.00	0.00	.01	0.00	.04
0	0	2	2	2	2
0.00	0.00	34.68	2.15	55.09	11.38
0.00	0.00	34.68	2.15	55.09	11.38
0.00	0.00	0.00	0.00	0.00	0.00
0	0	1	1	1	1
7.20	23.00	32.33	2.31	81.35	12.35
0.00	0.00	0.00	0.00	0.00	0.00
7.00	24.00	31.35	1.87	92.11	14.26
0.00	0.00	0.00	0.00	0.00	0.00
7.10	23.50	31.84	2.09	86.73	13.31
.14	.71	.69	.31	7.61	1.35
2	2	2	2	2	2
7.90	26.50	3.80	1.00	39.00	7.90
7.90	26.50	3.80	1.00	39.00	7.90
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0	0	0

APPENDIX 11. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
OSF- 25	1/23/79	4.30	0.00
	1/23/79	4.30	0.00
MEAN		4.30	0.00
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		2	0
OSF- 26	6/19/78	18.90	30.00
MEAN		18.90	30.00
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
OSF- 27	3/21/79	47.50	23.80
	5/16/79	54.00	0.00
	5/21/79	57.30	140.10
	11/16/79	51.00	91.00
MEAN		52.45	84.97
STANDARD DEVIATION		4.18	58.38
NUMBER OF VALUES		4	3
OSF- 28	6/23/72	6.60	8.40
MEAN		6.60	8.40
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
OSF- 30	11/20/79	220.00	0.00
MEAN		220.00	0.00
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	0

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
80.50	.27	0.00	118.00
80.50	.27	0.00	105.00
80.50	.27	0.00	111.50
0.00	0.00	0.00	9.19
2	2	0	2
32.00	1.19	0.00	369.00
32.00	1.19	0.00	369.00
0.00	0.00	0.00	0.00
1	1	0	1
193.50	.81	0.00	413.00
0.00	0.00	0.00	0.00
210.50	.62	.49	597.00
0.00	0.00	0.00	0.00
202.00	.72	.49	505.00
12.02	.14	0.00	130.11
2	2	1	2
133.00	.35	.03	173.00
133.00	.35	.03	173.00
0.00	0.00	0.00	0.00
1	1	1	1
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0	0	0	0

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OSF- 32	3/23/79	165.00
	5/31/79	145.00
	9/11/79	190.00
MEAN		166.67
STANDARD DEVIATION		22.55
NUMBER OF VALUES		3
OSF- 33	12/11/78	370.00
	3/21/79	370.00
	9/13/79	375.00
MEAN		371.67
STANDARD DEVIATION		2.89
NUMBER OF VALUES		3
OSF- 34	3/27/79	295.00
	9/14/79	265.00
MEAN		280.00
STANDARD DEVIATION		21.21
NUMBER OF VALUES		2
OSF- 35	3/26/79	280.00
	5/30/79	285.00
	9/11/79	310.00
MEAN		291.67
STANDARD DEVIATION		16.07
NUMBER OF VALUES		3
CSF- 37	3/26/79	610.00
MEAN		610.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.60	22.00	3.02	.70	24.43	5.60
7.80	24.00	3.03	.45	21.92	4.88
7.90	24.00	3.00	.40	25.87	4.31
7.77	23.33	3.02	.52	24.07	4.93
.15	1.15	.02	.16	2.00	.65
3	3	3	3	3	3
7.60	24.00	10.62	1.11	57.60	8.29
7.30	23.00	10.46	1.35	54.24	7.97
7.70	24.50	6.96	1.10	54.28	6.73
7.53	23.83	9.35	1.19	55.37	7.66
.21	.76	2.07	.14	1.93	.82
3	3	3	3	3	3
7.60	24.00	5.65	1.25	33.99	6.12
7.70	23.50	0.00	0.00	0.00	0.00
7.65	23.75	5.65	1.25	33.99	6.12
.07	.35	0.00	0.00	0.00	0.00
2	2	1	1	1	1
7.60	22.00	3.02	1.58	45.16	2.53
7.50	24.00	3.08	2.19	45.45	2.65
7.60	24.00	3.00	1.89	48.31	1.86
7.57	23.33	3.03	1.89	46.31	2.35
.06	1.15	.04	.31	1.74	.43
3	3	3	3	3	3
7.50	23.50	25.70	4.22	59.51	19.55
7.50	23.50	25.70	4.22	59.51	19.55
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
OSF- 32	3/23/79	4.00	22.00
	5/31/79	7.50	69.40
	9/11/79	4.60	13.80
MEAN		5.37	35.07
STANDARD DEVIATION		1.87	30.01
NUMBER OF VALUES		3	3
OSF- 33	12/11/78	10.90	37.20
	3/21/79	10.30	0.00
	9/13/79	10.80	35.90
MEAN		10.67	36.55
STANDARD DEVIATION		.32	.92
NUMBER OF VALUES		3	2
OSF- 34	3/27/79	7.30	31.90
	9/14/79	0.00	0.00
MEAN		7.30	31.90
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1
OSF- 35	3/26/79	5.60	24.80
	5/30/79	9.20	22.90
	9/11/79	5.10	16.30
MEAN		6.63	21.33
STANDARD DEVIATION		2.24	4.46
NUMBER OF VALUES		3	3
OSF- 37	3/26/79	42.80	31.90
MEAN		42.80	31.90
STANDARD DEVIATION		0.00	0.00
NUMBER OF VALUES		1	1

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
94.50	.20	0.00	88.00
80.00	.22	.07	106.00
83.00	.19	0.00	113.00
85.83	.20	.07	102.33
7.65	.01	0.00	12.90
3	3	1	3
0.00	1.47	0.00	243.00
149.50	1.45	0.00	251.00
139.00	.95	0.00	253.00
144.25	1.29	0.00	249.00
7.42	.30	0.00	5.29
2	3	0	3
126.00	.33	0.00	138.00
0.00	0.00	0.00	168.00
126.00	.33	0.00	153.00
0.00	0.00	0.00	21.21
1	1	0	2
132.50	.20	0.00	152.00
130.00	.22	.04	171.00
139.00	.19	0.00	167.00
133.83	.20	.04	163.33
4.65	.01	0.00	10.02
3	3	1	3
217.50	2.29	0.00	343.00
217.50	2.29	0.00	343.00
0.00	0.00	0.00	0.00
1	1	0	1

APPENDIX 11. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OSF- 38	12/11/78	315.00
MEAN		315.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
OSF- 39	6/28/79	0.00
MEAN		0.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		0
OSF- 42	11/30/79	648.00
MEAN		648.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
OSF- 44	10/17/79	390.00
	11/28/79	0.00
MEAN		390.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
OSF- 52	5/18/82	415.00
	5/18/82	462.00
	5/18/82	489.00
	5/18/82	475.00
	5/18/82	423.00
	5/26/82	914.00
	5/26/82	616.00
MEAN		542.00
STANDARD DEVIATION		176.94
NUMBER OF VALUES		7

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.80	24.00	8.10	.98	49.37	7.80
7.80	24.00	8.10	.98	49.37	7.80
0.00	0.00	0.00	0.00	0.00	0.00
1	1	1	1	1	1
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0	0	0
0.00	0.00	24.00	1.30	52.11	14.25
0.00	0.00	24.00	1.30	52.11	14.25
0.00	0.00	0.00	0.00	0.00	0.00
0	0	1	1	1	1
0.00	0.00	8.04	.38	44.96	6.48
0.00	0.00	6.13	.89	47.75	7.64
0.00	0.00	7.09	.64	46.36	7.06
0.00	0.00	1.35	.36	1.97	.82
0	0	2	2	2	2
0.00	0.00	28.00	1.80	32.10	14.50
0.00	0.00	33.60	1.70	35.60	17.00
0.00	0.00	34.50	1.70	37.00	18.60
0.00	0.00	31.70	1.60	36.60	19.20
0.00	0.00	25.50	1.50	35.70	17.90
0.00	26.30	91.40	2.80	46.50	22.50
0.00	25.40	48.10	1.90	41.20	20.50
0.00	25.85	41.83	1.86	37.81	18.60
0.00	.64	23.02	.44	4.67	2.55
0	2	7	7	7	7

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)
OSF- 38	12/11/78	8.00
MEAN		8.00
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
OSF- 39	6/28/79	117.20
MEAN		117.20
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
OSF- 42	11/30/79	54.50
MEAN		54.50
STANDARD DEVIATION		0.00
NUMBER OF VALUES		1
OSF- 44	10/17/79	9.20
	11/28/79	10.10
MEAN		9.65
STANDARD DEVIATION		.64
NUMBER OF VALUES		2
OSF- 52	5/18/82	44.70
	5/18/82	52.20
	5/18/82	55.20
	5/18/82	50.60
	5/18/82	39.10
	5/26/82	169.80
	5/26/82	81.10
MEAN		70.39
STANDARD DEVIATION		45.81
NUMBER OF VALUES		7

FOR WELLHEAD WATER SAMPLES (CONTINUED)

DISSOLVED SULFATE (MG/L AS SO4)	ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
34.70	0.00	1.26	0.00	210.00
34.70	0.00	1.26	0.00	210.00
0.00	0.00	0.00	0.00	0.00
1	0	1	0	1
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0	0	0	0	0
19.30	150.50	1.01	.19	303.00
19.30	150.50	1.01	.19	303.00
0.00	0.00	0.00	0.00	0.00
1	1	1	1	1
77.50	0.00	1.25	.14	0.00
130.50	106.00	.98	.25	186.00
104.00	106.00	1.12	.20	188.00
37.48	0.00	.19	.08	0.00
2	1	2	2	1
5.00	117.00	5.10	.09	284.00
5.00	138.50	6.40	.08	309.00
5.00	151.00	6.70	.06	382.00
10.80	161.00	6.30	.06	339.00
5.20	161.00	3.10	.04	300.00
67.80	118.50	24.00	.06	577.00
26.00	157.00	12.40	.04	424.00
17.83	143.43	9.14	.06	373.57
23.33	19.16	7.14	.02	102.30
7	7	7	7	7

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OSF- 53	6/16/82	0.00
	6/16/82	0.00
	6/16/82	0.00
	6/16/82	0.00
	6/16/82	0.00
	6/16/82	0.00
	6/16/82	0.00
	6/16/82	0.00
	6/16/82	0.00
	6/16/82	0.00
	6/16/82	0.00
	6/16/82	0.00
	6/16/82	0.00
	6/16/82	0.00
	6/16/82	0.00
	6/16/82	0.00
	6/16/82	0.00
	6/28/82	0.00
	6/28/82	0.00
	6/28/82	0.00
	6/28/82	0.00
	6/28/82	0.00
	6/28/82	0.00
	6/28/82	0.00
	6/28/82	0.00
	6/28/82	0.00
	6/28/82	0.00
	6/28/82	0.00
	7/13/82	0.00
	7/13/82	0.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
0.00	0.00	11.80	1.60	33.30	4.30
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	6.30	.70	35.50	5.50
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	5.60	.80	35.30	5.30
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	6.30	.70	36.60	5.50
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	5.90	1.00	36.00	5.70
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	6.00	.80	36.40	5.90
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	4.70	.70	38.60	7.90
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	4.90	.70	37.90	7.70
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	5.20	.80	38.20	8.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	5.70	1.00	35.70	7.70
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	6.60	1.00	31.40	7.10
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	5.40	.90	37.50	8.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	5.60	1.00	34.60	7.60
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	5.60	.90	35.70	7.80
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	4.50	.80	37.90	8.50

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD WATER SAMPLES (CONTINUED)

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)	ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
OSF- 53	6/16/82	8.40	10.90	88.00	.59	.13	272.00
	6/16/82	8.40	11.00	96.00	0.00	0.00	172.00
	6/16/82	8.40	8.90	92.00	.23	.20	151.00
	6/16/82	8.40	7.40	97.50	0.00	0.00	0.00
	6/16/82	8.40	8.20	96.00	.20	.38	156.00
	6/16/82	8.40	7.10	94.50	0.00	0.00	0.00
	6/16/82	8.40	8.40	98.50	.23	.21	0.00
	6/16/82	8.40	7.60	100.00	0.00	0.00	0.00
	6/16/82	8.40	7.00	100.00	.72	.15	154.00
	6/16/82	8.40	5.00	100.00	0.00	0.00	0.00
	6/16/82	8.40	8.90	98.50	.37	.16	176.00
	6/16/82	8.40	17.40	97.50	0.00	0.00	0.00
	6/16/82	7.30	18.90	97.50	.78	.19	194.00
	6/16/82	7.30	22.00	96.50	0.00	0.00	0.00
	6/16/82	7.30	21.20	96.50	0.00	.15	183.00
	6/16/82	7.30	16.90	96.50	0.00	0.00	0.00
	6/28/82	10.00	23.10	92.00	.73	.15	168.00
	6/28/82	10.00	22.10	88.50	0.00	0.00	0.00
	6/28/82	10.00	20.50	88.00	.74	.20	168.00
	6/28/82	9.60	21.60	88.00	0.00	0.00	0.00
	6/28/82	9.60	23.10	77.50	.65	.15	169.00
	6/28/82	9.60	22.90	86.50	0.00	0.00	0.00
	6/28/82	9.60	22.90	89.50	.78	.15	195.00
	6/28/82	9.60	23.40	83.00	0.00	0.00	0.00
	6/28/82	9.60	21.80	83.00	.73	.17	189.00
	6/28/82	9.00	23.10	83.00	0.00	0.00	0.00
	6/28/82	9.00	20.80	87.50	.73	.15	189.00
	7/13/82	10.00	26.70	90.50	0.00	0.00	0.00
	7/13/82	10.40	24.30	93.50	.90	.15	183.00

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
DSF- 53	7/13/82	10.00	22.50
	7/13/82	10.00	22.50
	7/13/82	12.60	22.80
	7/13/82	10.00	25.40
	7/13/82	10.20	23.40
	7/13/82	10.20	24.30
	7/14/82	10.70	23.70
	7/14/82	10.70	25.70
	7/14/82	10.70	26.10
	7/22/82	6.10	16.80
	7/22/82	6.70	18.40
MEAN		9.10	18.37
STANDARD DEVIATION		1.30	6.76
NUMBER OF VALUES		40	40
POF- 1	3/27/62	8.00	.40
	4/27/71	0.00	0.00
	10/11/78	4.90	21.30
	12/11/78	6.00	5.00
	4/17/79	6.40	14.00
	5/30/79	7.00	18.70
	9/14/79	6.60	10.00
MEAN		6.15	11.57
STANDARD DEVIATION		.72	8.02
NUMBER OF VALUES		6	6
POF- 2	10/11/78	4.90	20.80
	5/30/79	7.40	14.40
	9/ 5/79	6.40	6.20

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
89.00	0.00	0.00	0.00
89.00	1.00	.15	182.00
85.50	0.00	0.00	0.00
88.00	.80	.16	179.00
89.00	0.00	0.00	0.00
89.50	1.10	.15	185.00
88.00	0.00	0.00	0.00
90.50	1.50	.20	163.00
88.50	0.00	0.00	0.00
79.50	1.07	.28	184.00
91.00	1.03	.24	188.00
91.09	.74	.18	181.90
5.74	.32	.06	24.18
40	20	21	21
0.00	0.00	0.00	164.00
0.00	0.00	0.00	0.00
140.50	.29	0.00	159.00
0.00	.28	0.00	165.00
127.00	.07	0.00	170.00
144.50	.22	.16	168.00
128.00	.19	0.00	170.00
135.00	.21	.16	166.00
8.82	.09	0.00	4.24
4	5	1	6
59.50	.29	0.00	70.00
134.50	.22	.34	154.00
150.00	.19	0.00	179.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
OSF- 53	7/13/82	0.00
	7/13/82	0.00
	7/13/82	0.00
	7/13/82	0.00
	7/13/82	0.00
	7/13/82	0.00
	7/14/82	0.00
	7/14/82	0.00
	7/14/82	0.00
	7/22/82	243.00
	7/22/82	260.00
MEAN		251.50
STANDARD DEVIATION		12.02
NUMBER OF VALUES		2
POF- 1	3/27/62	275.00
	4/27/71	260.00
	10/11/78	189.00
	12/11/78	238.00
	4/17/79	0.00
	5/30/79	285.00
	9/14/79	270.00
MEAN		252.83
STANDARD DEVIATION		35.12
NUMBER OF VALUES		6
POF- 2	10/11/78	105.00
	5/30/79	282.00
	9/ 5/79	324.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESILM (MG/L AS MG)
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	4.30	.60	36.60	8.40
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	4.70	.80	37.10	8.30
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	4.40	.80	38.10	8.40
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	4.50	.80	38.90	8.60
0.00	0.00	0.00	0.00	0.00	0.00
0.00	25.10	5.10	.79	38.30	7.90
0.00	25.20	5.40	.81	38.40	8.00
0.00	25.15	5.64	.87	36.57	7.24
0.00	.07	1.56	.20	1.89	1.29
0	2	21	21	21	21
7.50	23.30	4.00	.70	49.00	2.80
0.00	25.00	0.00	0.00	0.00	0.00
6.75	24.70	3.54	.71	51.84	3.26
7.70	24.00	3.91	.68	50.18	2.56
0.00	0.00	4.99	.69	43.16	2.65
7.40	24.00	3.08	.79	46.55	2.18
7.40	24.00	3.00	.61	45.51	2.07
7.35	24.17	3.75	.70	47.71	2.59
.36	.60	.73	.06	3.22	.43
5	6	6	6	6	6
6.55	24.50	7.22	.71	22.05	2.13
7.40	24.00	3.08	.41	49.64	1.97
7.50	25.50	3.00	.46	56.03	2.62

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
MEAN		237.00
STANDARD DEVIATION		116.23
NUMBER OF VALUES		3
PDF- 3	10/12/78	204.00
	12/ 7/78	215.00
	3/29/79	240.00
	4/17/79	0.00
	5/30/79	232.00
	9/14/79	220.00
MEAN		222.20
STANDARD DEVIATION		14.15
NUMBER OF VALUES		5
PDF- 4	10/12/78	176.00
	12/ 5/78	155.00
	3/29/79	215.00
	4/18/79	0.00
	4/18/79	0.00
	5/23/79	180.00
	9/10/79	252.00
	12/ 5/79	215.00
MEAN		198.83
STANDARD DEVIATION		35.06
NUMBER OF VALUES		8
PDF- 5	4/26/74	571.00
	10/12/78	490.00
	12/ 4/78	578.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.15	24.67	4.43	.53	42.57	2.24
.52	.76	2.41	.16	18.06	.34
3	3	3	3	3	3
7.20	23.30	3.02	.80	39.35	4.13
7.70	23.50	3.07	.68	36.62	3.98
7.70	23.50	5.82	1.04	37.98	4.19
0.00	0.00	3.50	.45	32.99	4.06
7.40	24.00	3.08	.67	36.35	3.54
7.50	24.00	3.00	.61	37.09	3.55
7.50	23.66	3.58	.71	36.73	3.91
.21	.32	1.11	.20	2.13	.29
5	5	6	6	6	6
7.50	24.40	3.02	.89	24.29	8.51
7.80	24.00	3.07	.82	26.13	8.64
7.90	23.00	5.82	1.15	26.82	8.58
0.00	0.00	5.81	.32	22.83	8.05
0.00	0.00	4.16	.42	25.88	8.93
7.90	24.00	3.08	.86	25.42	7.88
7.70	24.00	3.00	.75	0.00	6.30
0.00	0.00	3.53	.50	26.18	8.32
7.76	23.88	3.94	.71	25.36	8.15
.17	.52	1.22	.28	1.37	.82
5	5	8	8	7	8
0.00	0.00	33.00	1.80	61.00	19.00
7.25	24.20	39.95	1.39	68.34	14.10
7.55	24.50	36.13	1.26	60.02	15.07

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)
MEAN		6.23
STANDARD DEVIATION		1.26
NUMBER OF VALUES		3
POF- 3	10/12/78	4.50
	12/ 7/78	8.90
	3/29/79	4.00
	4/17/79	5.30
	5/30/79	8.10
	9/14/79	6.20
MEAN		5.83
STANDARD DEVIATION		1.54
NUMBER OF VALUES		6
POF- 4	10/12/78	5.50
	12/ 5/78	6.90
	3/29/79	4.60
	4/18/79	6.40
	4/18/79	5.90
	5/23/79	8.10
	9/10/79	6.00
	12/ 5/79	4.00
MEAN		5.93
STANDARD DEVIATION		1.28
NUMBER OF VALUES		8
POF- 5	4/26/74	78.00
	10/12/78	105.40
	12/ 4/78	96.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

DISSOLVED SULFATE (MG/L AS SO4)	ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
13.80	114.67	.23	.34	134.33
7.32	48.40	.05	0.00	57.10
3	3	3	1	3
10.20	119.50	.29	0.00	124.00
5.00	0.00	.20	0.00	138.00
28.40	124.00	.20	0.00	136.00
14.00	100.50	.07	0.00	126.00
0.00	110.00	.22	.52	143.00
10.00	108.50	.58	0.00	154.00
13.52	112.50	.26	.52	136.83
8.91	9.32	.17	0.00	11.11
5	5	8	1	6
7.10	102.50	.32	0.00	129.00
5.00	0.00	.37	0.00	133.00
29.90	110.50	.35	0.00	117.00
0.00	86.50	.24	0.00	0.00
12.90	93.00	.25	0.00	100.00
6.00	99.00	.22	.20	138.00
13.00	97.00	.24	0.00	138.00
11.20	88.50	.20	.06	118.00
12.16	96.71	.27	.13	124.71
8.48	8.31	.06	.10	13.88
7	7	8	2	7
1.30	180.00	1.10	0.00	417.00
6.90	174.50	1.29	0.00	437.00
5.00	0.00	1.73	0.00	407.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
POF- 5	3/19/79	645.00
	5/22/79	555.00
MEAN		567.80
STANDARD DEVIATION		55.43
NUMBER OF VALUES		5
POF- 6	9/27/78	235.00
	12/ 5/78	253.00
	3/29/79	235.00
	5/23/79	205.00
	9/ 5/79	252.00
MEAN		236.00
STANDARD DEVIATION		19.42
NUMBER OF VALUES		5
POF- 7	9/28/78	140.00
	12/ 5/78	120.00
	3/29/79	90.00
	5/23/79	105.00
	9/ 5/79	103.00
	12/ 4/79	0.00
MEAN		111.60
STANDARD DEVIATION		19.11
NUMBER OF VALUES		5
POF- 8	5/ 7/70	160.00
	4/29/71	168.00
	9/28/78	165.00
	12/ 4/78	150.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.50	23.50	38.63	1.61	62.38	14.74
7.20	24.00	38.16	1.19	66.69	12.60
7.38	24.05	37.17	1.45	63.69	15.10
.18	.42	2.71	.25	3.64	2.38
4	4	5	5	5	5
7.70	24.50	5.21	.92	28.14	7.55
8.00	24.00	3.40	.95	27.74	7.40
7.90	24.00	6.15	1.39	28.41	7.70
8.10	24.00	3.08	1.13	28.70	6.99
7.90	25.50	3.00	.88	26.22	6.51
7.92	24.40	4.17	1.05	27.84	7.23
.15	.65	1.43	.21	.97	.48
5	5	5	5	5	5
8.20	23.50	3.88	.52	17.40	4.21
8.30	23.00	2.93	.49	16.44	4.20
7.90	23.00	4.49	.88	6.41	2.97
8.60	24.00	3.08	.59	16.13	3.97
8.70	23.00	3.17	.53	0.00	3.85
0.00	0.00	0.00	0.00	0.00	0.00
8.34	23.30	3.51	.60	14.10	3.84
.32	.45	.66	.18	5.15	.51
5	5	5	5	4	5
0.00	25.00	0.00	0.00	0.00	0.00
0.00	24.00	0.00	0.00	0.00	0.00
8.20	24.50	5.21	.58	18.20	6.86
7.70	24.00	2.93	.52	16.77	6.78

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
POF- 5	3/19/79	96.70	26.10
	5/22/79	90.50	28.50
MEAN		93.32	13.56
STANDARD DEVIATION		10.09	12.73
NUMBER OF VALUES		5	5
POF- 6	9/27/78	8.40	15.80
	12/ 5/78	8.90	12.20
	3/29/79	7.50	20.10
	5/23/79	10.70	14.40
	9/ 5/79	8.60	22.70
MEAN		8.82	17.04
STANDARD DEVIATION		1.17	4.28
NUMBER OF VALUES		5	5
POF- 7	9/28/78	6.30	7.40
	12/ 5/78	7.70	5.00
	3/29/79	5.20	17.70
	5/23/79	8.10	6.00
	9/ 5/79	6.80	9.00
	12/ 4/79	8.70	0.00
MEAN		7.13	9.02
STANDARD DEVIATION		1.28	5.08
NUMBER OF VALUES		6	5
POF- 8	5/ 7/70	6.50	0.00
	4/29/71	7.50	0.00
	9/28/78	5.90	9.40
	12/ 4/78	7.90	5.00

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
169.50	1.83	0.00	0.00
177.50	1.17	.28	484.00
175.38	1.42	.28	436.25
4.52	.33	0.00	34.19
4	5	1	4
74.00	.44	0.00	131.00
0.00	.42	0.00	140.00
79.50	.46	0.00	159.00
72.50	.22	.11	153.00
73.00	.34	0.00	148.00
74.75	.38	.11	146.20
3.23	.10	0.00	10.99
4	5	1	5
45.50	.38	0.00	83.00
0.00	.31	0.00	94.00
27.50	.26	0.00	43.00
48.00	.22	.05	93.00
40.00	.20	0.00	104.00
0.00	0.00	0.00	0.00
40.25	.27	.05	83.40
9.13	.07	0.00	23.78
4	5	1	5
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
71.00	.96	0.00	92.00
0.00	.86	0.00	102.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
POF- 8	3/28/79	165.00
	5/23/79	145.00
	9/ 5/79	185.00
MEAN		162.57
STANDARD DEVIATION		13.02
NUMBER OF VALUES		7
POF- 9	9/28/78	150.00
	12/12/78	150.00
	3/29/79	149.00
	5/17/79	162.00
	9/12/79	151.00
MEAN		152.40
STANDARD DEVIATION		5.41
NUMBER OF VALUES		5
POF- 10	9/28/78	155.00
	12/12/78	157.00
	3/29/79	157.00
	5/17/79	157.00
	9/12/79	159.00
MEAN		157.00
STANDARD DEVIATION		1.41
NUMBER OF VALUES		5
POF- 11	9/28/78	155.00
	12/12/78	163.00
	3/29/79	159.00
	5/17/79	158.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
8.20	23.00	5.49	.86	17.57	6.91
8.30	24.00	3.08	.57	18.49	6.39
8.30	25.50	3.33	.44	0.00	6.09
8.14	24.29	4.01	.59	17.26	6.61
.25	.81	1.24	.16	.78	.35
5	7	5	5	4	5
7.10	0.00	4.21	.45	18.20	8.38
7.60	23.30	5.25	.38	0.00	5.93
7.45	25.40	3.02	.62	18.45	5.62
0.00	24.40	3.08	.80	14.59	7.28
7.65	0.00	3.00	.50	15.70	4.40
7.45	24.37	3.71	.55	16.74	5.92
.25	1.05	1.00	.16	1.89	1.06
4	3	5	5	4	5
8.10	24.50	3.88	.47	17.88	6.69
7.55	0.00	6.42	.52	0.00	7.22
7.50	0.00	3.02	.73	17.96	6.58
0.00	26.00	3.08	.59	16.01	6.43
7.50	0.00	3.00	1.76	0.00	4.74
7.66	25.25	3.88	.81	17.28	6.33
.29	1.06	1.47	.54	1.10	.94
4	2	5	5	3	5
7.80	24.50	4.38	.55	17.72	7.38
7.35	20.50	5.59	.46	17.57	6.95
7.55	0.00	3.02	.73	17.96	6.88
0.00	26.10	3.08	.66	15.48	7.07

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD WA

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
POF- 8	3/28/79	5.80	17.70
	5/23/79	8.30	5.00
	9/ 5/79	6.80	5.00
MEAN		6.96	8.42
STANDARD DEVIATION		.97	5.53
NUMBER OF VALUES		7	5
POF- 9	9/28/78	4.30	13.00
	12/12/78	4.80	5.00
	3/29/79	7.30	26.40
	5/17/79	8.10	0.00
	9/12/79	4.20	6.90
MEAN		5.74	12.83
STANDARD DEVIATION		1.83	9.67
NUMBER OF VALUES		5	4
POF- 10	9/28/78	4.00	11.60
	12/12/78	5.80	5.00
	3/29/79	4.00	26.10
	5/17/79	4.00	5.00
	9/12/79	0.00	10.80
MEAN		4.45	11.70
STANDARD DEVIATION		.90	8.63
NUMBER OF VALUES		4	5
POF- 11	9/28/78	4.00	12.70
	12/12/78	4.80	5.00
	3/29/79	4.00	24.90
	5/17/79	10.50	5.00

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
79.50	.92	0.00	86.00
69.50	.43	.12	100.00
64.50	.45	0.00	112.00
71.13	.72	.12	98.40
6.24	.26	0.00	9.94
4	5	1	5
63.50	1.85	0.00	132.00
0.00	1.98	0.00	91.00
64.00	1.96	0.00	0.00
68.00	2.17	.13	87.00
56.00	.86	0.00	95.00
62.88	1.76	.13	101.25
5.01	.52	0.00	20.76
4	5	1	4
65.50	2.47	0.00	89.00
0.00	2.50	0.00	98.00
65.00	2.62	0.00	0.00
67.50	2.73	.10	121.00
58.50	1.22	0.00	94.00
64.13	2.31	.10	100.50
3.90	.62	0.00	14.15
4	5	1	4
67.00	2.45	0.00	88.00
0.00	2.53	0.00	91.00
65.00	2.58	0.00	0.00
67.50	2.47	.15	114.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
POF- 11	9/12/79	153.00
MEAN		157.60
STANDARD DEVIATION		3.85
NUMBER OF VALUES		5
POF- 12	9/28/78	155.00
	3/29/79	163.00
	5/17/79	147.00
	9/12/79	161.00
MEAN		156.50
STANDARD DEVIATION		7.19
NUMBER OF VALUES		4
POF- 13	9/27/78	182.00
	12/ 5/78	155.00
	3/28/79	188.00
	5/23/79	160.00
	9/ 5/79	169.00
	12/ 4/79	183.00
MEAN		172.83
STANDARD DEVIATION		13.53
NUMBER OF VALUES		6
POF- 14	9/27/78	190.00
	12/ 7/78	175.00
	3/29/79	192.00
	4/19/79	0.00
	5/30/79	178.00
	9/11/79	210.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.35	0.00	3.00	.40	16.05	5.24
7.51	23.70	3.81	.56	16.98	6.70
.21	2.88	1.15	.14	1.11	.84
4	3	5	5	5	5
7.20	24.50	4.54	.46	18.20	6.38
7.85	23.90	3.02	.86	17.64	7.10
0.00	26.00	3.08	.55	15.48	5.88
7.30	25.10	3.00	.42	16.05	5.71
7.45	24.88	3.41	.57	16.84	6.27
.35	.90	.75	.20	1.29	.62
3	4	4	4	4	4
7.60	24.50	3.88	1.01	19.81	7.64
7.60	24.00	2.93	1.01	19.02	7.58
7.60	23.00	4.16	1.29	18.84	7.75
8.10	24.00	3.08	1.02	18.31	7.11
8.30	25.50	3.66	.90	0.00	6.13
0.00	0.00	0.00	0.00	0.00	0.00
7.84	24.20	3.54	1.05	19.00	7.24
.34	.91	.52	.15	.62	.67
5	5	5	5	4	5
7.40	24.50	3.54	.42	23.49	6.43
8.10	24.00	2.93	.38	23.22	6.33
7.70	24.00	4.49	.77	24.27	6.78
0.00	0.00	3.83	.29	21.30	6.60
8.10	24.00	3.08	.60	32.34	4.26
8.10	24.50	3.00	1.04	16.05	4.57

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
POF- 11	9/12/79	5.70	7.40
MEAN		5.80	11.00
STANDARD DEVIATION		2.72	8.38
NUMBER OF VALUES		5	5
POF- 12	9/28/78	4.00	14.40
	3/29/79	4.00	23.70
	5/17/79	8.10	5.00
	9/12/79	4.20	12.10
MEAN		5.08	13.80
STANDARD DEVIATION		2.02	7.72
NUMBER OF VALUES		4	4
POF- 13	9/27/78	4.70	8.80
	12/ 5/78	10.30	5.00
	3/28/79	4.60	34.70
	5/23/79	8.10	5.00
	9/ 5/79	5.30	5.00
	12/ 4/79	12.00	0.00
MEAN		7.50	11.70
STANDARD DEVIATION		3.15	12.96
NUMBER OF VALUES		6	5
POF- 14	9/27/78	6.90	10.20
	12/ 7/78	6.90	10.80
	3/29/79	4.00	25.30
	4/19/79	5.30	18.40
	5/30/79	6.10	20.90
	9/11/79	7.50	16.30

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
60.00	1.05	0.00	110.00
64.88	2.22	.15	100.75
3.42	.65	0.00	13.15
4	5	1	4
63.50	1.93	0.00	85.00
68.00	2.29	0.00	0.00
63.50	1.84	.14	106.00
61.00	.95	0.00	88.00
64.00	1.75	.14	93.00
2.92	.57	0.00	11.36
4	4	1	3
79.00	1.87	0.00	99.00
0.00	2.05	0.00	115.00
87.50	2.00	0.00	124.00
76.00	1.20	.12	122.00
70.50	.80	0.00	102.00
0.00	0.00	0.00	0.00
78.25	1.58	.12	112.40
7.10	.56	0.00	11.41
4	5	1	5
72.50	.30	0.00	104.00
0.00	.21	0.00	112.00
79.50	.23	0.00	134.00
63.50	.13	0.00	108.00
76.50	.22	.05	123.00
121.50	.20	0.00	96.00

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
MEAN		189.00
STANDARD DEVIATION		13.86
NUMBER OF VALUES		5
POF- 15	12/ 5/78	135.00
	3/28/79	172.00
	5/23/79	135.00
	9/ 5/79	180.00
MEAN		155.50
STANDARD DEVIATION		23.90
NUMBER OF VALUES		4
POF- 17	3/27/79	202.00
	5/22/79	185.00
MEAN		193.50
STANDARD DEVIATION		12.02
NUMBER OF VALUES		2
POF- 18	5/22/79	542.00
	9/ 6/79	642.00
MEAN		592.00
STANDARD DEVIATION		70.71
NUMBER OF VALUES		2
POF- 19	5/22/79	130.00
	9/ 6/79	150.00
MEAN		140.00
STANDARD DEVIATION		14.14
NUMBER OF VALUES		2

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
7.88	24.20	3.48	.58	23.45	5.83
.32	.27	.61	.28	5.28	1.11
5	5	6	6	6	6
7.80	24.00	2.93	.84	13.54	7.80
7.90	23.50	4.16	1.16	14.06	8.23
8.30	24.00	3.08	.83	12.66	7.20
8.10	25.00	3.33	.98	13.25	6.51
8.03	24.13	3.38	.95	13.38	7.44
.22	.63	.55	.15	.58	.75
4	4	4	4	4	4
8.10	23.50	5.49	1.17	19.16	9.33
8.10	23.50	3.12	.83	18.88	8.47
8.10	23.50	4.31	1.00	19.01	8.90
0.00	0.00	1.68	.24	.21	.61
2	2	2	2	2	2
7.40	24.00	35.00	1.18	72.91	10.60
7.50	24.50	32.32	.54	73.91	8.33
7.45	24.25	33.66	.86	73.41	9.47
.07	.35	1.90	.45	.71	1.61
2	2	2	2	2	2
8.30	24.00	3.08	.53	15.94	5.79
7.90	26.00	3.33	.42	0.00	4.82
8.10	25.00	3.21	.48	15.94	5.31
.28	1.41	.18	.08	0.00	.69
2	2	2	2	1	2

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD W

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
MEAN		6.12	16.95
STANDARD DEVIATION		1.29	5.89
NUMBER OF VALUES		6	6
POF- 15	12/ 5/78	6.90	5.00
	3/28/79	4.00	23.80
	5/23/79	5.60	5.00
	9/ 5/79	6.40	5.00
MEAN		5.73	9.70
STANDARD DEVIATION		1.27	9.40
NUMBER OF VALUES		4	4
POF- 17	3/27/79	4.00	22.30
	5/22/79	11.40	7.40
MEAN		7.70	14.65
STANDARD DEVIATION		5.23	10.54
NUMBER OF VALUES		2	2
POF- 18	5/22/79	42.10	8.80
	9/ 6/79	32.30	5.00
MEAN		37.20	6.90
STANDARD DEVIATION		6.93	2.69
NUMBER OF VALUES		2	2
POF- 19	5/22/79	5.90	6.00
	9/ 6/79	4.60	5.40
MEAN		5.25	5.70
STANDARD DEVIATION		.92	.42
NUMBER OF VALUES		2	2

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
82.70	.21	.05	112.83
22.51	.05	0.00	13.69
5	6	1	6
0.00	5.24	0.00	97.00
81.00	4.71	0.00	78.00
66.50	3.93	.08	100.00
66.50	2.21	0.00	95.00
71.33	4.02	.08	92.50
8.37	1.32	0.00	9.88
3	4	1	4
97.00	4.09	0.00	128.00
87.00	3.60	.05	130.00
92.00	3.85	.05	129.00
7.07	.35	0.00	1.41
2	2	1	2
102.00	1.18	.69	355.00
253.00	.84	0.00	370.00
177.50	1.01	.69	362.50
106.77	.24	0.00	10.61
2	2	1	2
68.00	1.54	.15	96.00
63.00	1.13	0.00	78.00
65.50	1.34	.15	87.00
3.54	.29	0.00	12.73
2	2	1	2

APPENDIX II. WATER QUALITY DATA

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)
POF- 20	8/ 3/82	0.00
	8/ 3/82	0.00
	9/16/82	0.00
	9/22/82	0.00
	9/22/82	0.00
	9/22/82	0.00
	9/22/82	0.00
	9/22/82	0.00
	9/22/82	0.00
	9/22/82	0.00
	9/23/82	0.00
	9/23/82	0.00
	9/23/82	0.00
	9/23/82	0.00
	9/23/82	0.00
	9/23/82	0.00
	9/23/82	0.00
	9/28/82	0.00
	9/28/82	0.00
	9/28/82	0.00
	9/28/82	0.00
	9/28/82	0.00
	9/28/82	0.00
	9/28/82	0.00
	9/28/82	0.00
	9/29/82	0.00
	9/29/82	0.00
	9/29/82	0.00
	9/29/82	0.00

FOR WELLHEAD WATER SAMPLES (CONTINUED)

PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
0.00	0.00	27.00	1.65	35.10	14.40
0.00	0.00	27.40	1.63	35.70	15.10
0.00	0.00	28.20	2.18	15.40	12.50
0.00	0.00	32.20	1.73	31.40	18.20
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	33.70	1.81	29.80	18.40
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	33.40	1.65	32.90	19.20
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	31.90	1.67	26.00	18.10
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	31.30	1.68	27.50	19.20
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	30.60	1.68	29.70	19.80
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	31.40	1.64	28.20	19.30
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	30.10	1.70	29.50	19.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	30.20	1.58	30.70	19.30
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	31.50	1.65	33.10	19.90
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	30.70	1.60	31.50	19.50
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	31.60	1.66	27.70	18.90
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	30.00	1.63	31.50	20.20
0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD WA

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)
POF- 20	8/ 3/82	54.90	24.70
	8/ 3/82	54.90	9.50
	9/16/82	54.00	5.00
	9/22/82	54.10	16.40
	9/22/82	57.00	23.90
	9/22/82	57.60	24.20
	9/22/82	56.60	24.90
	9/22/82	56.00	26.10
	9/22/82	56.00	26.10
	9/22/82	54.90	28.50
	9/23/82	52.90	27.30
	9/23/82	53.90	28.50
	9/23/82	51.80	27.30
	9/23/82	51.80	24.90
	9/23/82	51.80	26.10
	9/23/82	51.80	22.70
	9/23/82	52.50	28.30
	9/28/82	50.80	26.10
	9/28/82	50.40	23.70
	9/28/82	49.80	24.40
	9/28/82	51.80	63.70
	9/28/82	51.80	36.80
	9/28/82	51.60	41.60
	9/28/82	50.80	38.50
	9/28/82	51.80	24.90
	9/29/82	51.80	40.70
	9/29/82	50.80	37.00
	9/29/82	49.80	35.60
	9/29/82	49.80	28.50

ATER SAMPLES (CONTINUED)

ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
87.50	0.00	.02	277.00
90.00	0.00	.02	285.00
58.00	0.00	.02	230.00
122.00	4.56	.02	319.00
119.50	0.00	0.00	0.00
109.50	4.58	.02	287.00
121.50	0.00	0.00	0.00
123.50	4.67	.02	291.00
120.50	0.00	0.00	0.00
94.00	4.13	.02	281.00
100.50	0.00	0.00	0.00
107.00	4.26	.02	273.00
113.00	0.00	0.00	0.00
115.50	4.41	.02	289.00
118.00	0.00	0.00	0.00
117.00	4.19	.02	290.00
113.00	0.00	0.00	0.00
119.50	6.25	.02	294.00
127.00	0.00	0.00	0.00
123.50	4.67	.02	272.00
124.50	0.00	0.00	0.00
129.50	12.78	.02	319.00
126.00	0.00	0.00	0.00
123.50	13.58	.02	309.00
104.50	0.00	0.00	0.00
101.50	11.66	.02	299.00
118.00	0.00	0.00	0.00
126.00	10.71	.02	297.00
123.50	0.00	0.00	0.00

APPENDIX II. WATER QUALITY DATA FOR WELLHEAD WATER SAMPLES (CONTINUED)

SFWMD WELL NO.	DATE MM/DD/YY	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEGREES C)	DISSOLVED SODIUM (MG/L AS NA)	DISSOLVED POTASSIUM (MG/L AS K)	DISSOLVED CALCIUM (MG/L AS CA)	DISSOLVED MAGNESIUM (MG/L AS MG)
POF- 20	10/ 5/82	430.00	0.00	24.70	27.10	1.65	34.20	18.70
	10/ 5/82	441.00	0.00	25.80	25.00	1.78	34.90	19.80
	10/ 5/82	465.00	0.00	28.50	30.80	3.79	35.40	19.10
	10/ 5/82	414.00	0.00	25.10	22.60	1.57	33.70	19.10
MEAN		437.50	0.00	26.03	29.85	1.80	30.70	18.39
STANDARD DEVIATION		21.42	0.00	1.71	2.82	.49	4.60	2.01
NUMBER OF VALUES		4	0	4	20	20	20	20

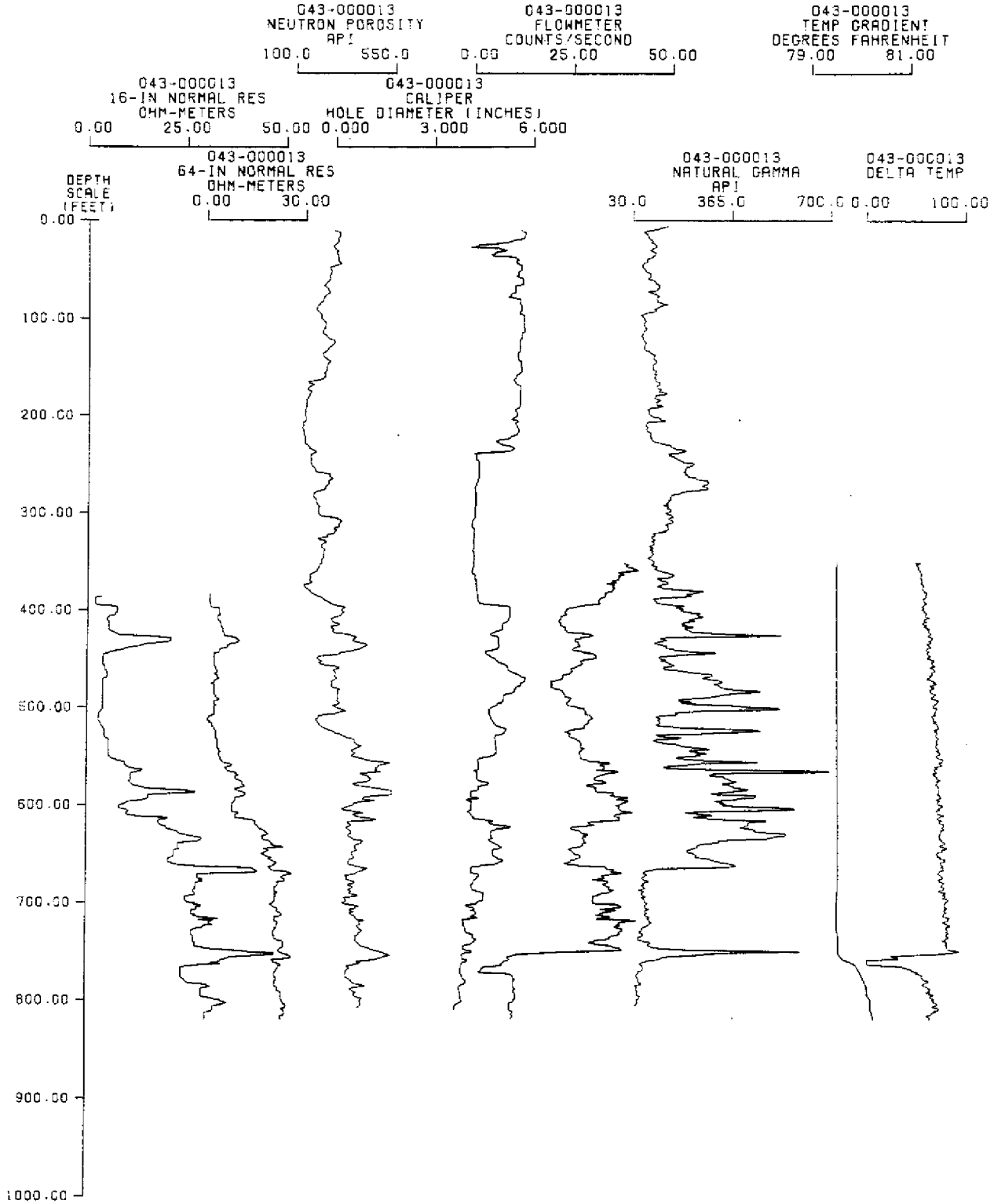
APPENDIX II. WATER QUALITY DATA FOR WELLHEAD WATER SAMPLES (CONTINUED)

SFWMD WELL NO.	DATE MM/DD/YY	DISSOLVED CHLORIDE (MG/L AS CL)	DISSOLVED SULFATE (MG/L AS SO4)	ALKALINITY (MG/L AS CACO3)	DISSOLVED STRONTIUM (MG/L AS SR)	DISSOLVED IRON (MG/L AS FE)	TOTAL DISSOLVED SOLIDS (MG/L)
POF- 20	10/ 5/82	52.30	15.80	134.50	4.49	.02	303.00
	10/ 5/82	49.40	28.50	125.00	7.93	.02	310.00
	10/ 5/82	58.50	22.10	136.50	7.68	.02	340.00
	10/ 5/82	42.30	10.70	147.50	0.00	.02	296.00
MEAN		52.61	27.06	115.77	6.91	.02	293.05
STANDARD DEVIATION		3.07	10.54	16.60	3.40	.00	22.49
NUMBER OF VALUES		33	33	33	16	20	20

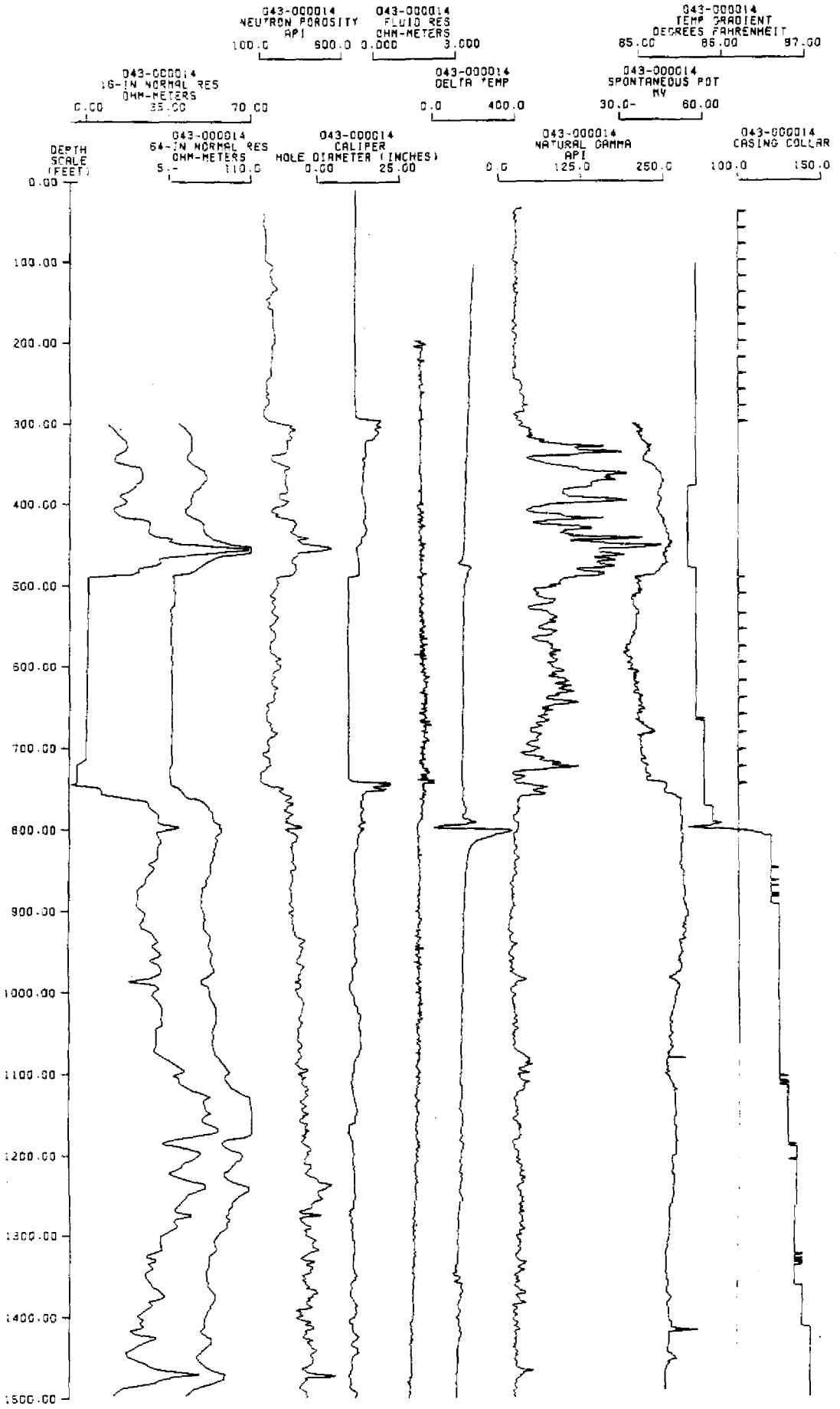
APPENDIX III

Borehole Geophysical Logs

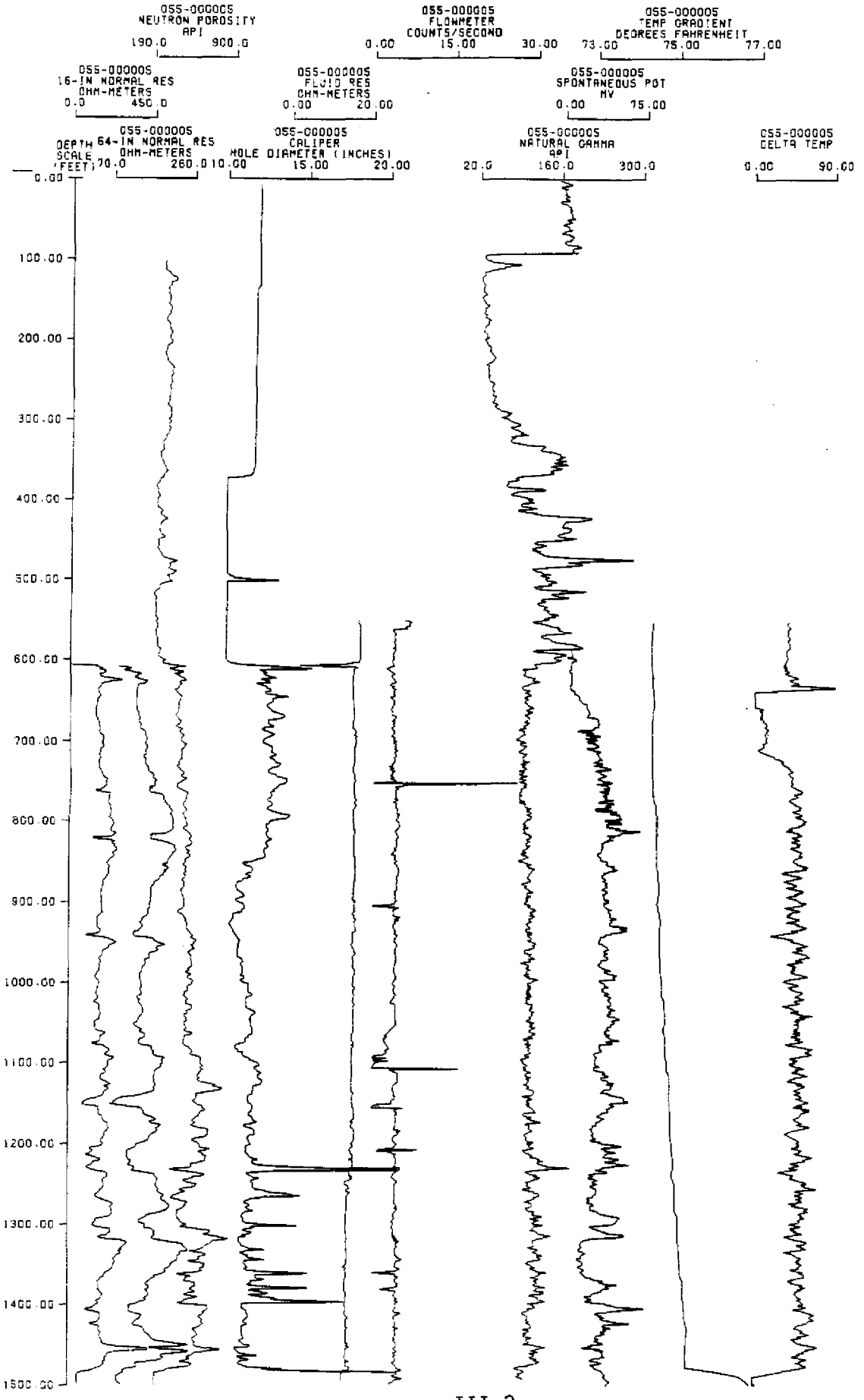
WELL NO. GLF-2
03/03/81



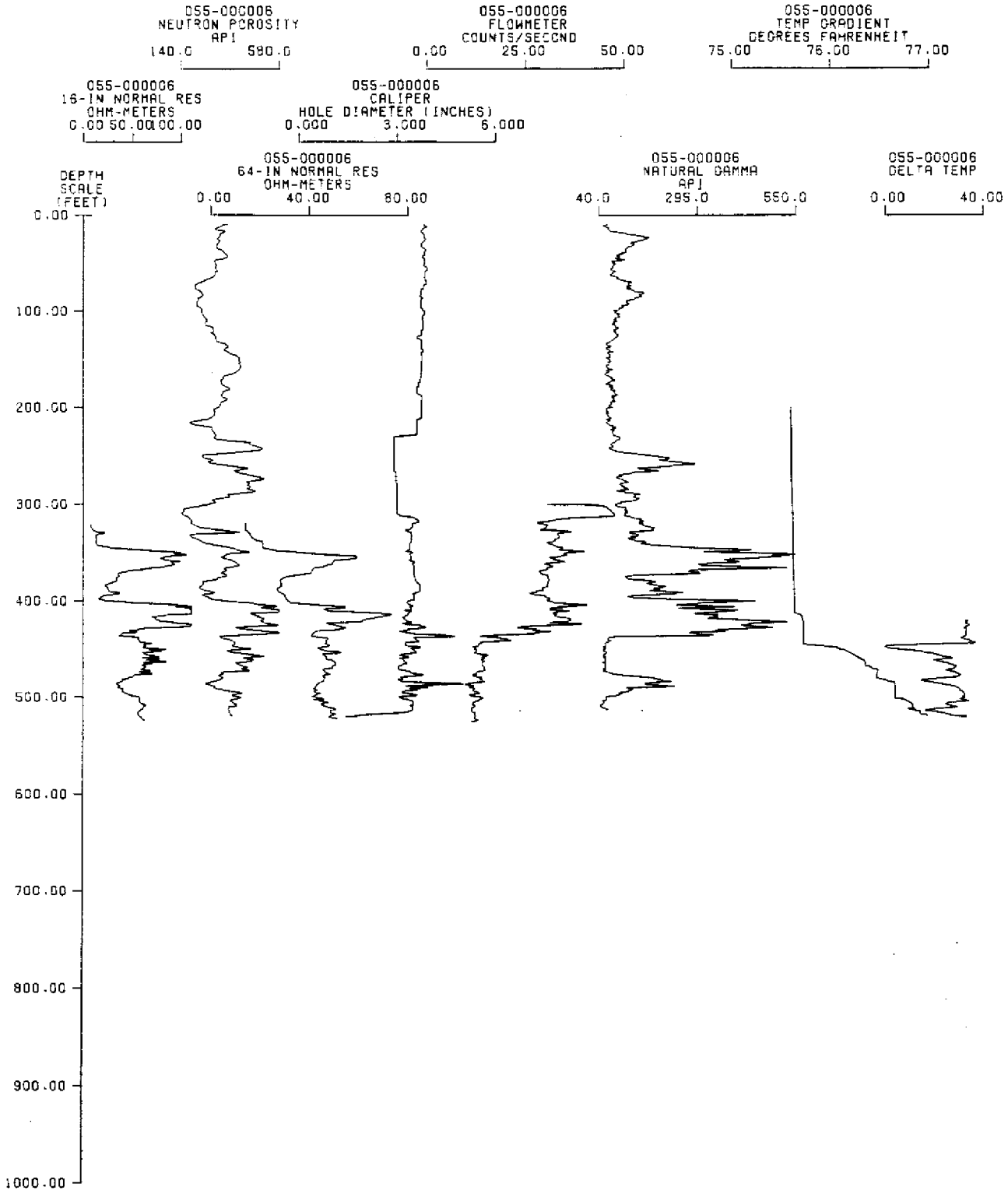
WELL NO. GLF-5
06/09/82



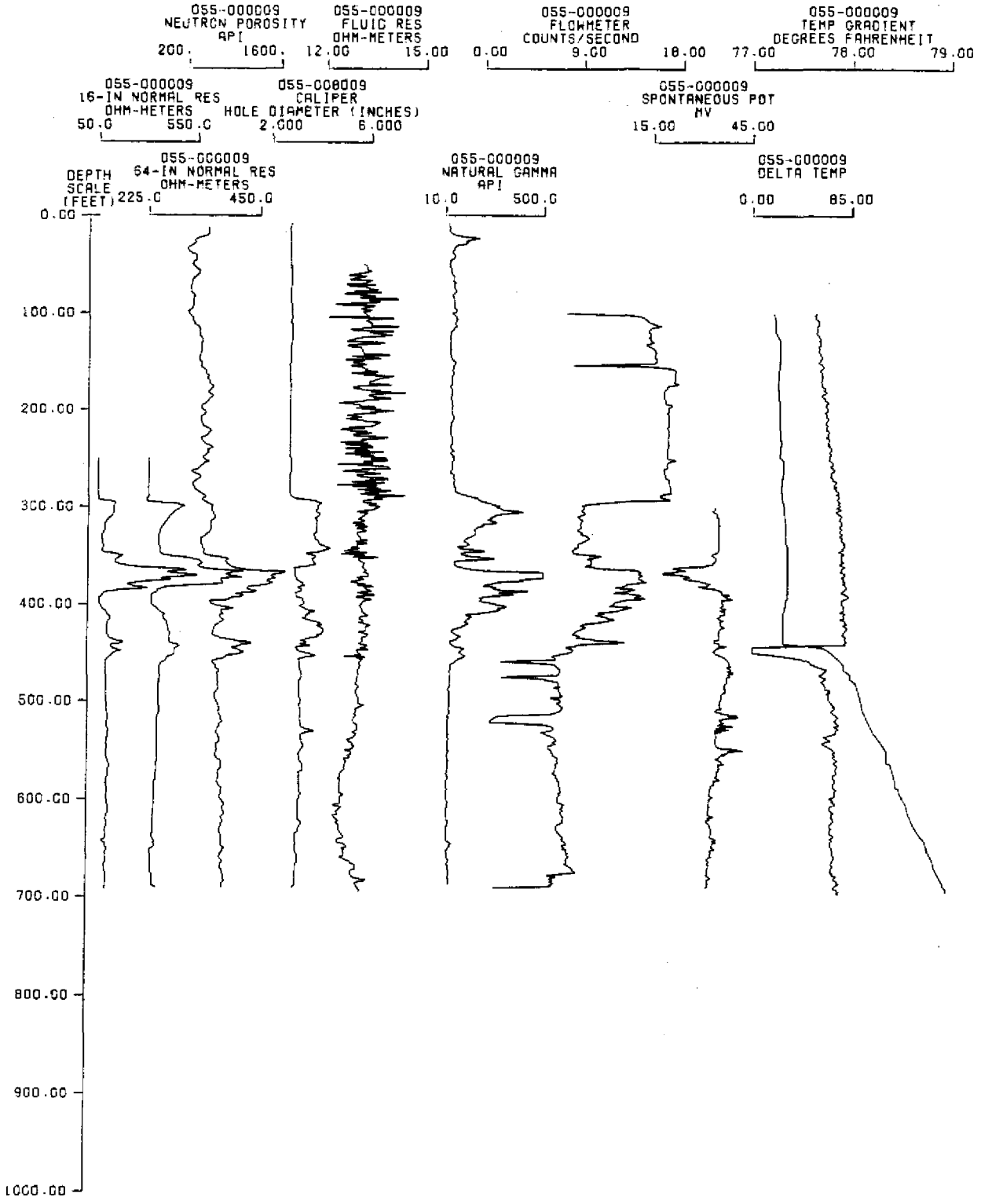
WELL NO. HIF-5
01/12/81



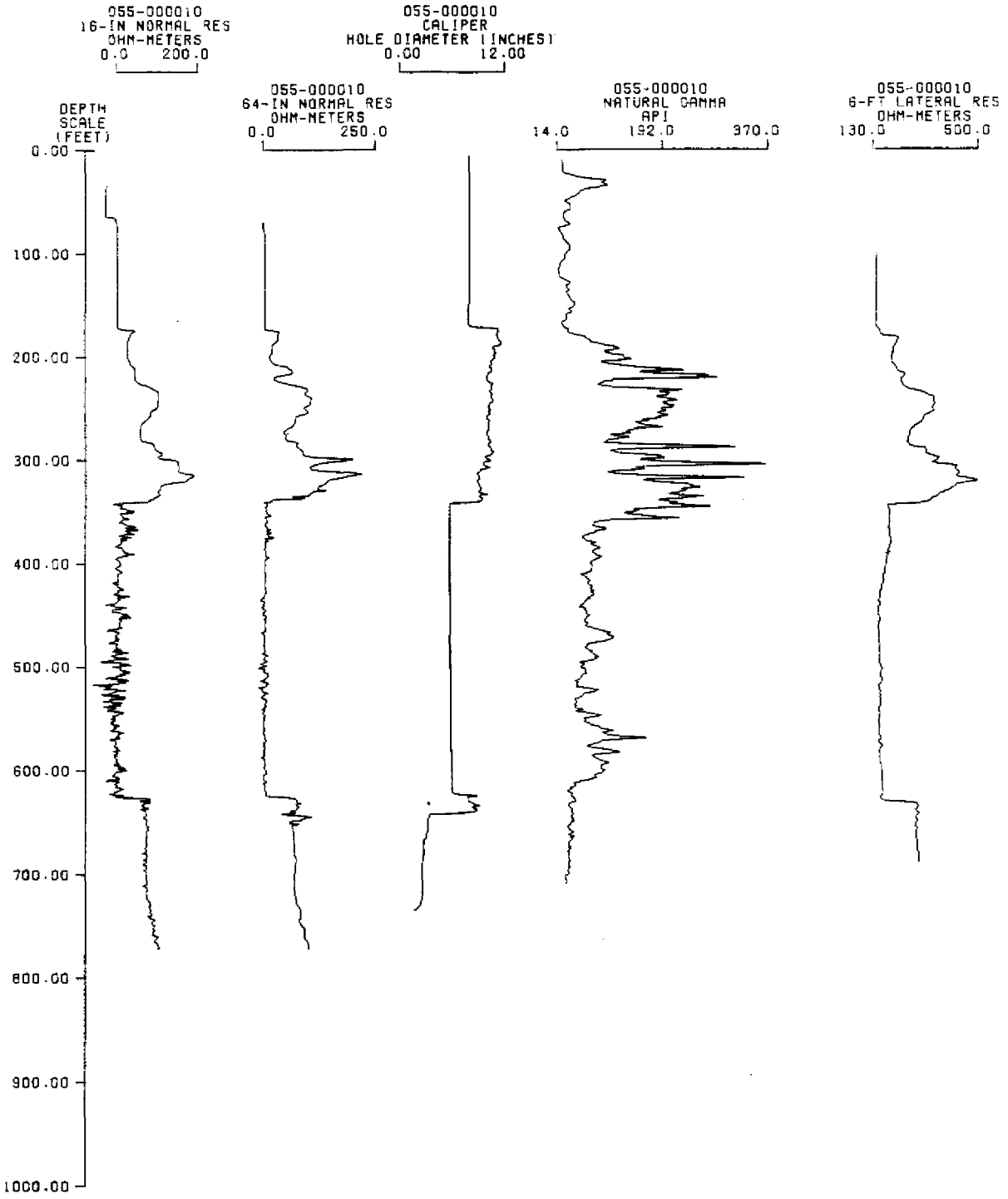
WELL NO. HIF-6
02/24/81



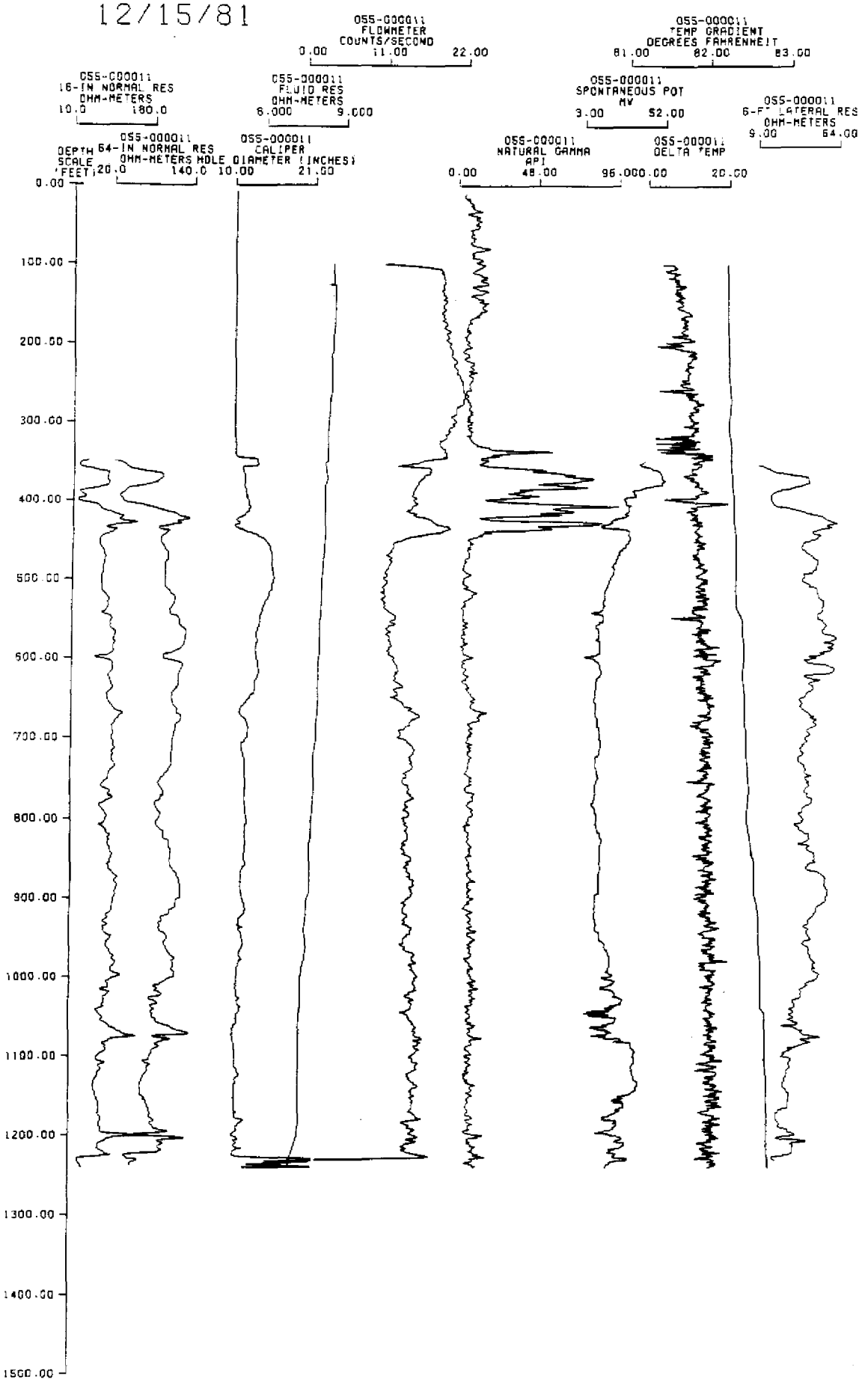
WELL NO. HIF-11
10/28/81



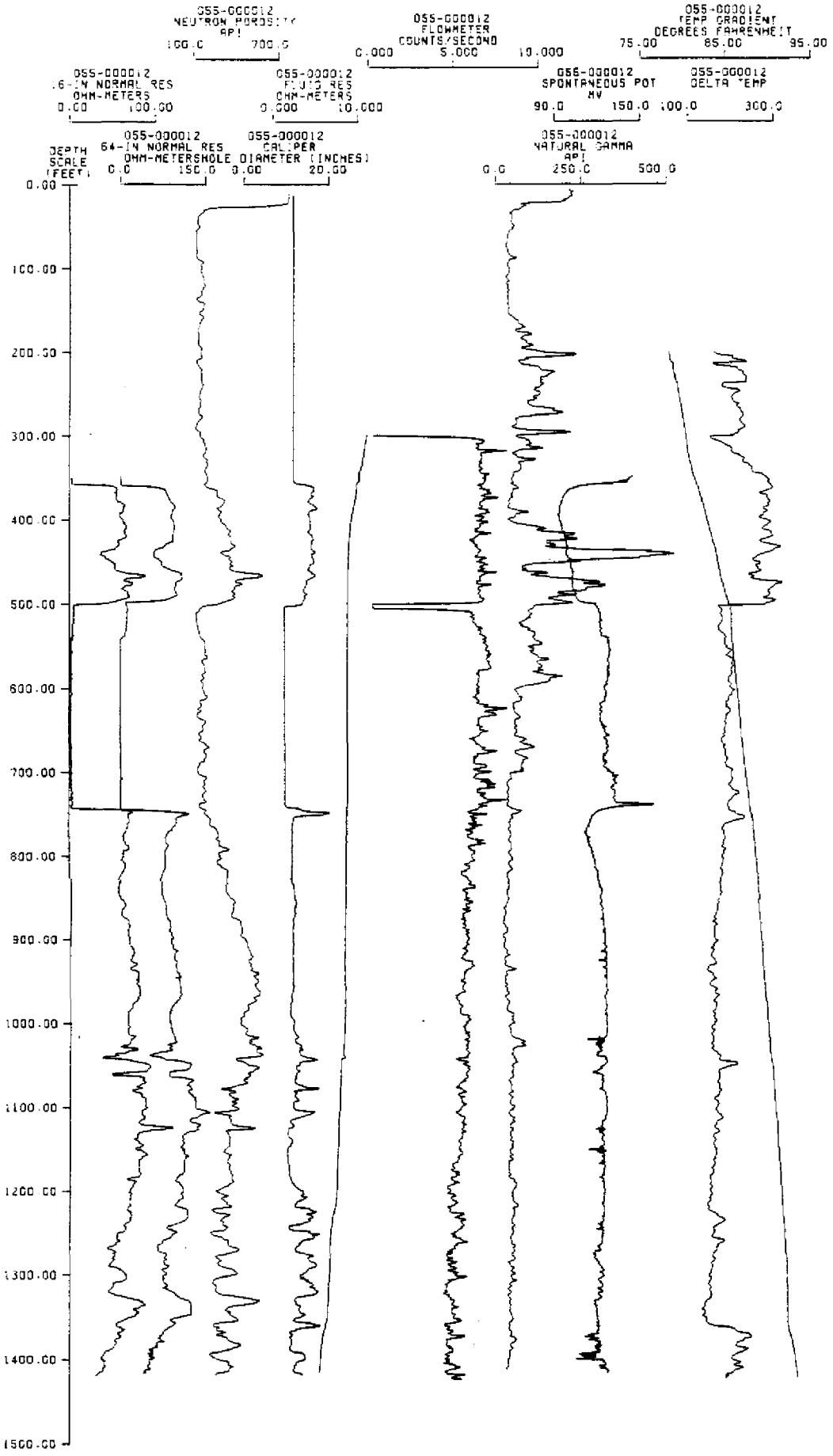
WELL NO. HIF-25
10/29/81



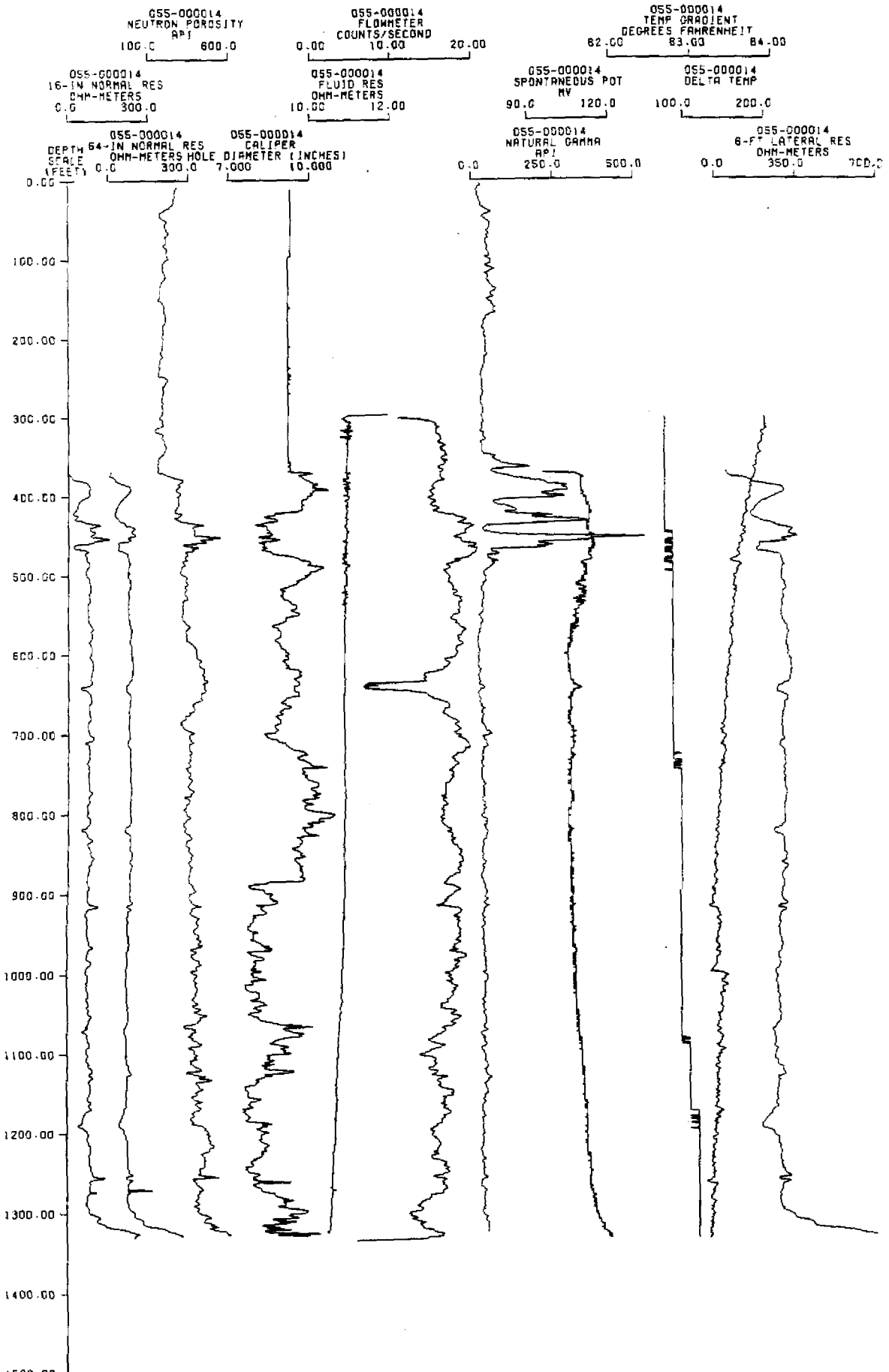
WELL NO. HIF-35
12/15/81



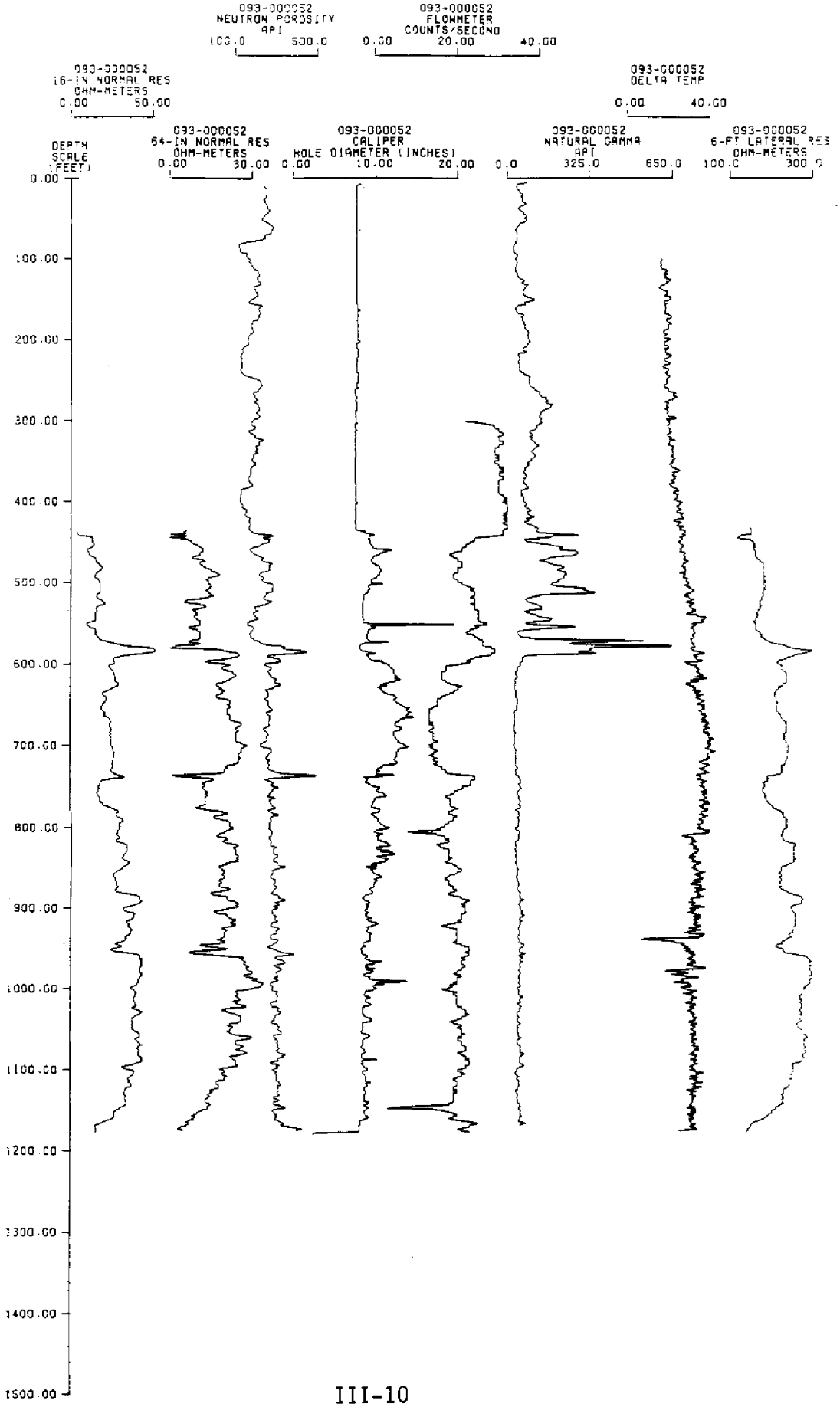
WELL NO. HIF-36
04/07/82



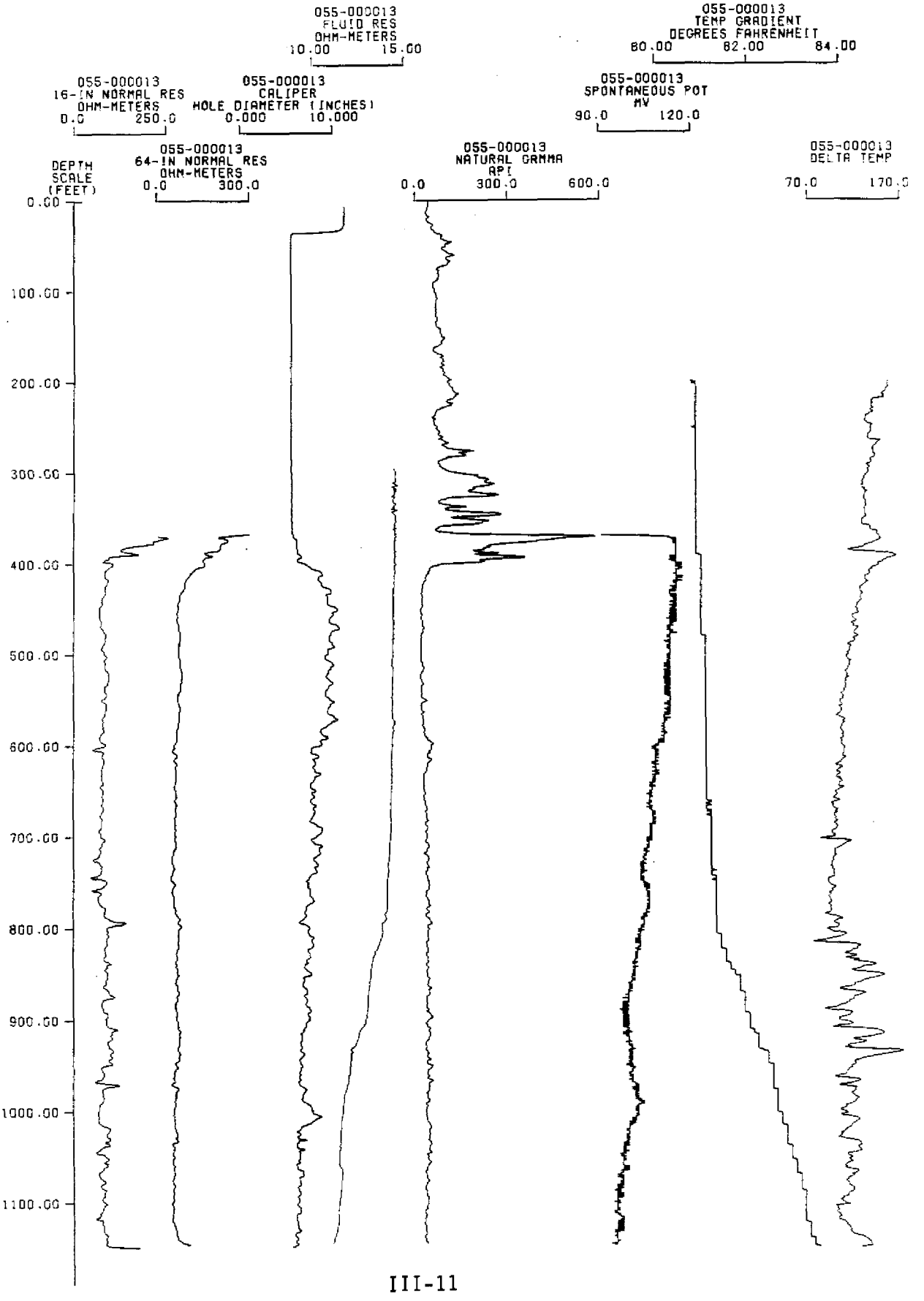
WELL NO. HIF-39
06/09/82



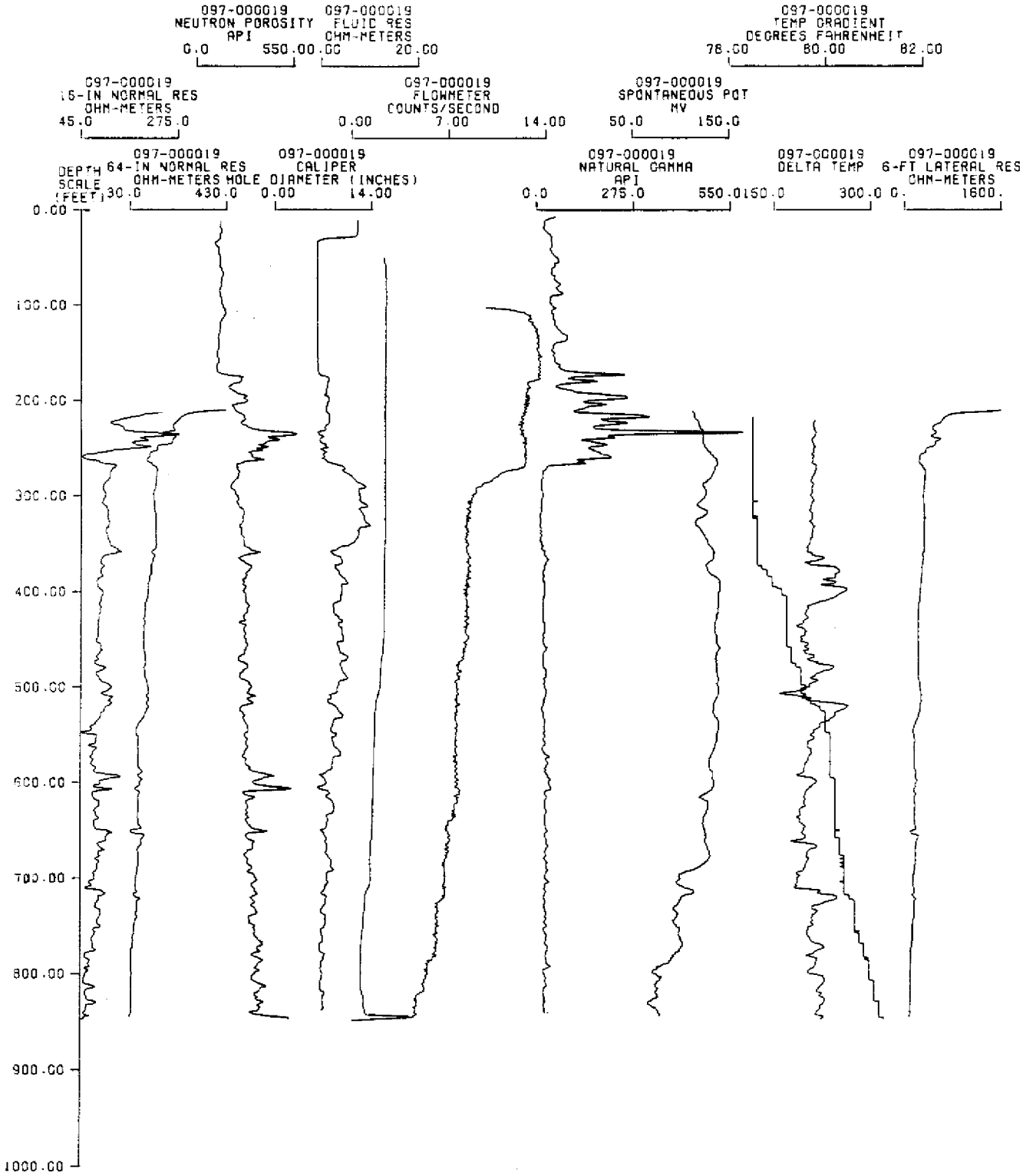
WELL NO. OKF-5
02/10/82



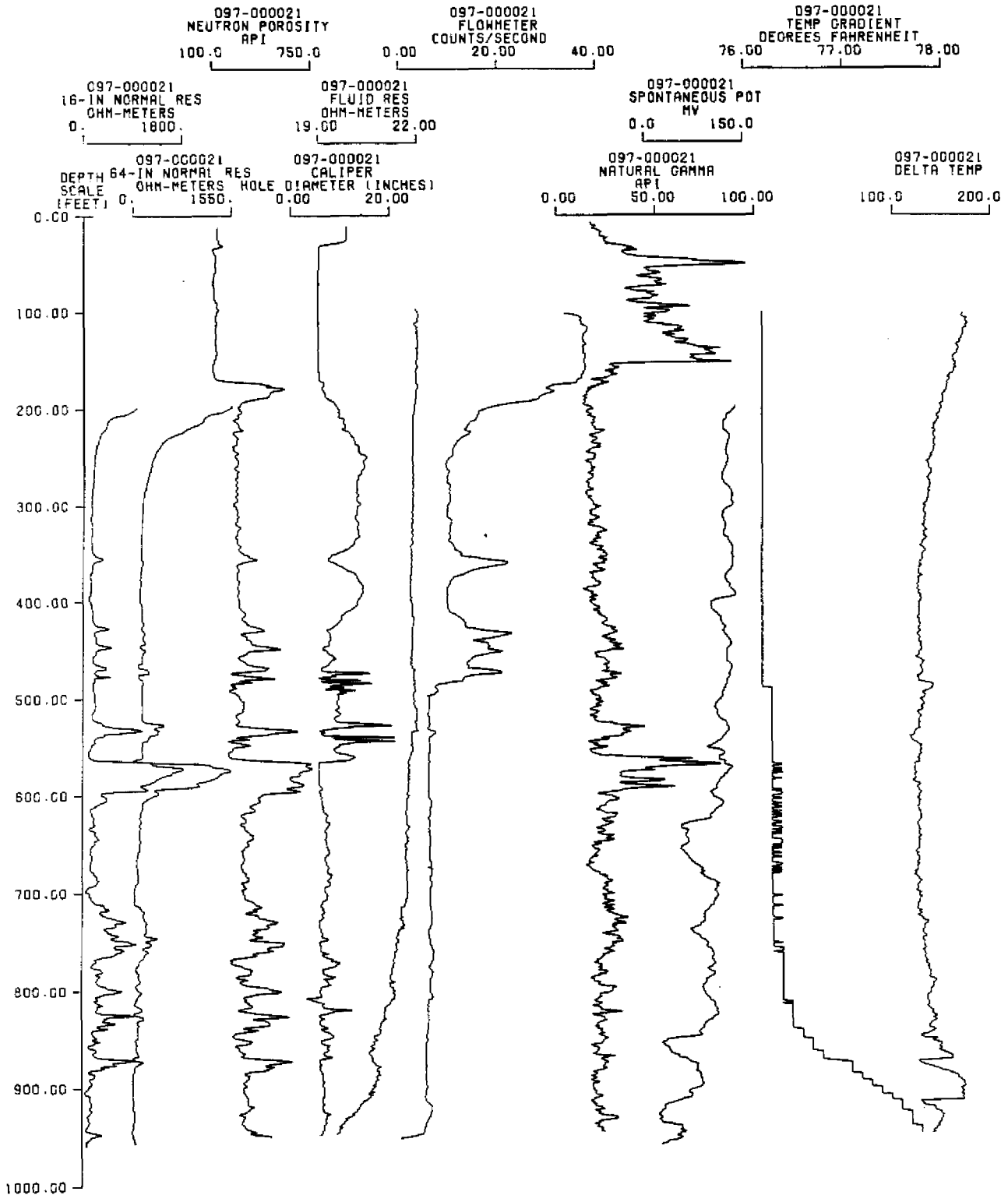
WELL NO. OKF-42
04/21/82



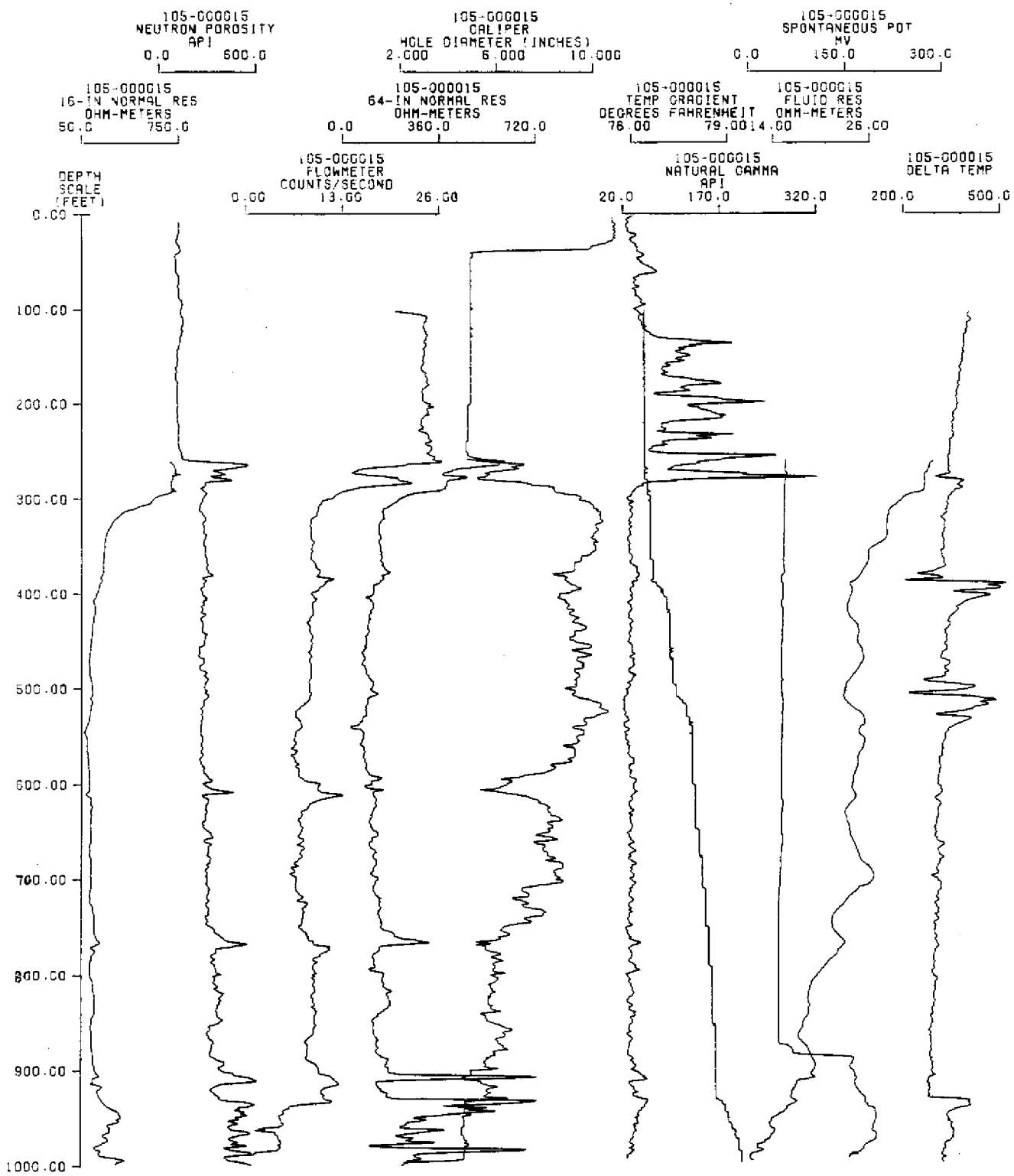
WELL NO. OSF-52
06/10/82



WELL NO. OSF-53
09/09/82



WELL NO. POF-20



APPENDIX IV

Geologic Logs

KPA Groundwater Monitoring Wells Described by SFWMD (Reece and others, 1984)..... IV- 1

KPA Groundwater Monitoring Wells Described by BOG or Well Drillers..... IV- 20

Miscellaneous Wells in the KPA Described by the BOG..... IV- 53

BOG Litholog Converted to SFWMD Litholog..... IV-108

KPA Groundwater Monitoring Wells Described in SFWMD Litholog Format..... IV-214

SFWMD Well No. MF-20
Martin County
Latitude: 27°09'19"
Longitude: 80°36'50"
Sec. 22, T 38S, R 37E
Reference Datum: Top of casing, about 35' NGVD of 1929
Owner: Bob's Grove, Martin County
Drilled by: McCullers & Howard Drilling
Drilling Method: Jet Percussion: 0' - 336'
Rotary, Air assist: 336' - 1200'
Cuttings Collected by: South Florida Water Management District
Cuttings Described by: South Florida Water Management District

DEPTH (FT.)	DESCRIPTION
23 - 44	Limestone, (coquina), gray, shelly, well cemented, hard.
44 - 54	Limestone, (coquina), light gray, shelly, poorly cemented; quartz sand.
54 - 64	Limestone, gray, shelly, poorly cemented; limestone, gray, well cemented, hard.
64 - 75	Limestone, gray, shell fragments (coquina); quartz sand, white.
75 - 85	Limestone, white to light tan (coquina); quartz sand, white; trace clay, green, plastic; trace clay, white, calcareous, chalky.
85 - 96	As above; grading into a gray limestone; shell fragments; quartz sand toward base.
96 - 105	As above; increasing light green and gray clay, plastic.
105 - 116	Clay, gray, plastic, shell fragments, quartz sand.
116 - 126	Sample missing.
126 - 136	Limestone, light green to gray, consolidated, hard; quartz sand; shell fragments; trace clay.
136 - 141	Clay, light gray to white, calcareous, plastic; shell fragments; quartz sand.
141 - 147	Clay, olive green, plastic, cohesive; shell fragments; quartz sand.
147 - 157	Clay, light olive green, plastic; quartz sand; shell fragments.

....MF-20 (Continued)

DEPTH (FT.)	DESCRIPTION
157 - 168	Clay, olive green, sandy cohesive; increase in shell fragments toward base (lower 5').
168 - 178	Clay, light gray to green; quartz, silt to fine sand; phosphorite; minor shell fragments.
178 - 210	Clay, olive green, plastic; quartz sand; phosphorite pebbles, well rounded, polished.
210 - 231	As above; more cohesive, less phosphorite, no shells.
231 - 252	Clay, olive green, cohesive plastic; quartz, silt to fine sand; phosphorite; clay, gray in stringers; quartz sand increasing towards base.
252 - 273	As above; less quartz sand, becoming quartz silt.
273 - 440	Cuttings not described, although collected.
440 - 460	Clay, light green to gray, plastic; quartz sand and silt; phosphorite.
460 - 480	Clay, light gray, green, plastic; quartz sand; phosphorite; trace limestone.
480 - 500	As above; limestone, white to tan, calcilutite; phosphorite; quartz sand and silt.
500 - 520	Clay, light green to gray, plastic; quartz sand and silt; phosphorite; trace shell fragments.
520 - 540	Clay, light gray, silt, plastic; increasing limestone, white; hard; phosphorite, fine to medium sand; shell fragments.
540 - 560	Clay, silt and sand, light gray, plastic; increasing limestone, white; hard; phosphorite, fine sand to medium sand; shell fragments.
560 - 580	Clay, green, gray, darker than above; decreasing limestone; phosphorite; trace shell fragments.
580 - 600	As above; only trace limestone.
600 - 620	As above, slightly lighter in color.
620 - 640	Clay, light gray to green, plastic; trace quartz sand; trace limestone; minor phosphorite.

....MF-20 (Continued)

DEPTH (FT.)	DESCRIPTION
640 - 660	Limestone, light gray, calcarenite, hard; clay, light green to gray; minor phosphorite; trace shell.
660 - 680	Limestone, tan, calcilutite, sucrosic; phosphorite; limestone, gray, as above although less hard; trace clay, light gray to green, plastic.
680 - 700	Limestone, tan to white, hard, calcarenite; Halimeda, bryozoan; trace shell fragments; limestone, light gray, hard; phosphorite; limestone, light brown to tan, soft calcilutite, sucrosic; Lepidocyclina sp.?
700 - 740	Limestone, light brown to tan, soft calcilutite, sucrosic; Lepidocyclina sp., Camerina sp.; trace limestone, gray, hard.
740 - 760	Limestone, tan, soft, calcilutite, sucrosic; limestone, white, chalky, soft, calcarenite (micritic); limestone, light gray, hard, subcrystalline (dolostone?), Lepidocyclina sp., bryozoan, Dictyoconus sp.; many hard layers.
760 - 770	As above; becoming lighter towards base; abundant Dictyoconus sp.
770 - 780	Limestone, white to light tan, chalky (lime mud), soft.
780 - 800	Limestone, light tan to white, soft, chalky; limestone, light gray to gray, moderately hard (dolostone?).
800 - 880	Limestone, light brown to tan, and white, calcilutite, sucrosic, soft; limestone, light gray to gray (dolostone?), moderately hard, subcrystalline; Dictyoconus sp.; hard streaks.
880 - 920	Limestone, light brown to tan, calcilutite, sucrosic, soft (as above); less Lepidocyclina sp.; trace shell fragments; minor limestone, gray, moderately hard.
920 - 940	As above; minor limestone (dolomite?), hard, dense subcrystalline to crystalline; minor limestone (dolostone?), brown, hard, subcrystalline.
940 - 1000	As above; no significant change since 880 ft.
1000 - 1020	As above; trace reddish brown limestone (dolostone?), very hard, crystalline.

....MF-20 (Continued)

DEPTH (FT.)	DESCRIPTION
1020 - 1040	Limestone, tan to light brown, calcilutite, sucrosic, soft; Lepidocyclina sp., Dictyoconus sp., bryozoan; minor limestone (dolomite?) gray, hard, subcrystalline; minor limestone, white, soft chalky, as above.
1040 - 1060	Limestone, light tan, white, calcilutite, sucrosic, soft, (as above); Lepidocyclina sp., minor limestone (dolostone?), gray, moderatley hard, subcrystalline; Dictyoconus sp.
1060 - 1080	Limestone, light gray, and tan to white, calcarenite, soft; Dictyoconus sp., Lepidocyclina sp., bryozoan; limestone (dolostone), gray and brown, subcrystalline.
1080 - 1100	As above; increasing gray limestone (dolomite?) subcrystalline to crystalline, hard, dense, also brown dolomite; limestone, subcrystalline, hard, dense.
1100 - 1120	Limestone, light gray, white, tan calcarenite, sucrosic; dolomite, gray, hard; Dictyoconus sp., Lepidocyclina sp., calcite crystal growths on limestone.
1120 - 1140	As above; increasing dolomite, dark gray to blue, crystalline, hard dense; limestone, light gray to tan, and dolomite, less Lepidocyclina sp.
1140 - 1160	Limestone, light tan to light gray, white calcarenite, soft; Lepidocyclina sp., Dictyoconus sp.; dolomite, dark gray to gray subcrystalline to crystalline. 75 percent limestone, 25 percent dolomite, less dolomite than 1120 - 1140'.
1160 - 1180	Limestone, light gray to white to very light tan, calcarenite, limestone, tan, calcilutite, sucrosic, soft; minor dolomite, dark gray to blue, crystalline, hard, dense; minor dolomite or limestone, brown, crystalline, hard, dense; few micro-fossils; trace clay, white carbonate mud.

SFWMD Well No. OKF-29
Okeechobee County
Latitude: 27°26'30"
Longitude: 80°50'30"
Sec. 9, T 35S, R 25E
Reference Datum: Land surface, about 65' NGVD of 1929
Owner: McArthur Dairy
Drilled by: McCullers and Howard Drilling
Drilling Method: Jet Percussion: 0' - 336'
Rotary Air assist: 336' - 1180'
Cuttings Collected by: South Florida Water Management District
Cuttings Described by: South Florida Water Management District

DEPTH (FT.)	DESCRIPTION
33 - 42	Quartz, iron stained, clear, medium sand size, poorly sorted, subrounded, unconsolidated; organics with quartz sand (hard pan?).
42 - 52	Quartz, clear, iron stained, medium sand size, moderately sorted, subrounded to rounded, unconsolidated; organics with quartz sand, compact.
52 - 63	Quartz, buff white, clear, medium sand size, poorly sorted, subrounded, unconsolidated; organics with quartz sand, compact.
63 - 73	Quartz, buff white, medium sand size, moderately sorted, subrounded, unconsolidated.
73 - 84	Organics, black; quartz coated with organics, medium sand size, compact, hard; shell fragments (pelecypods).
84 - 105	Clay, (lime mud), calcareous, light gray, plastic; quartz, clear, medium sand size.
105 - 115	Limestone, light gray, well cemented, hard; quartz, clear, medium sand size cemented in limestone; shell fragments (pelecypods) cemented in limestone.
115 - 125	Sandstone, calcareous, gray to light green, consolidated, shell fragments.
125 - 136	Sandstone, calcareous, light green; phosphatic; quartz, fine to medium sand size, rounded; phosphorite, black, medium sand size.
136 - 157	Sandstone, calcareous, light gray; quartz, medium sand size; subangular, sorted; phosphorite, black, medium sand size; shell fragments (pelecypods, echinoid spines, bryozoan).

....OKF-29 (Continued)

DEPTH (FT.)	DESCRIPTION
157 - 168	As above; may be less consolidated than above, and less shell fragments.
168 - 210	Quartz, clear, medium sand size, moderately sorted, subrounded; phosphorite, black, sand size; minor amounts of shell fragments.
210 - 220	Quartz, clear and frosted, coarse sand size, poorly sorted, subrounded; phosphorite, black medium to fine sand size; shell fragments (pelecypods, echinoid spines); limestone fragments.
220 - 231	Quartz, clear, frosted, medium sand size, moderately sorted; phosphorite, black, medium sand to silt size; shell fragments; dolomite, crystalline, gray.
231 - 241	As above, quartz poorly sorted.
241 - 252	Quartz, frosted, coarse sand size, subrounded, poorly sorted; dolomite, gray, crystalline, hard; shell fragments; limestone fragments; phosphorite, black, fine to coarse sand size.
252 - 262	As above; increased amounts of dolomite?, shell fragments.
262 - 283	Dolomite, gray, crystalline, hard; quartz, frosted, coarse sand size; shell fragments.
283 - 294	Dolomite, gray, crystalline, hard; dolomitic shell fragments and coral fragments; phosphorite, black, brown, coarse to fine sand size; quartz, frosted, subangular, poorly sorted.
294 - 304	Quartz, clear, frosted, subrounded, moderately sorted; phosphorite, black, brown, coarse to fine sand size; limestone and dolomite fragments.
304 - 315	As above; increasing amount of phosphorite.
315 - 325	Phosphorite, black, brown, coarse to medium sand size; quartz, frosted, subangular, medium sand size, moderately sorted; shell fragments.
325 - 340	No sample.
340 - 350	As 315' - 325'; iron stained, shell fragments.

....OKF-29 (Continued)

DEPTH (FT.)	DESCRIPTION
350 - 360	Sample missing.
360 - 370	Limestone, white, crystalline (calcilutite), hard; phosphorite, black brown, medium sand size; trace quartz.
370 - 380	As above; less phosphorite; silt size.
380 - 390	Limestone, white subcrystalline, hard; phosphorite, black, medium sand size.
390 - 400	Clay and silt, light green, calcareous, plastic; phosphorite, black coarse sand to granule size; limestone fragments; iron stained flakes.
400 - 410	Silt, light gray, calcareous; phosphorite, black and brown, fine sand size; limestone chips; shell fragments.
410 - 420	No sample.
420 - 440	Limestone, white to light grayish brown, subcrystalline, hard; dolomite, gray crystalline, hard; dolomite, gray crystalline, hard; phosphorite, black, hard, granule size.
440 - 460	Limestone, white to light gray, subcrystalline; phosphorite black, medium sand size.
460 - 480	Limestone, white biomicrite, soft, calcilutite; *Lepidocyclina sp*.
480 - 540	As above; (foram coquina).
540 - 570	As above; becoming a little more crystalline and brown in color (foram coquina).
570 - 580	Limestone, white soft, calcarenite, chalky, *Lepidocyclina sp*., *Dictyoconus sp*., echinoid spines.
580 - 590	Limestone, white, calcarenite, chalky, *Lepidocyclina sp*., *Dictyoconus sp*., echinoid spines.
590 - 610	As above; with gray crystalline dolomite.
610 - 620	Limestone, white to light gray, calcarenite; quartz, clear, sand size; fewer forams than above.
620 - 630	Limestone, white calcarenite; few forams.

....OKF-29 (Continued)

DEPTH (FT.)	DESCRIPTION
630 - 660	As above; dolomite, gray, crystalline, hard.
660 - 670	Limestone, white, few forams.
670 - 680	Limestone, light tan to white, subcrystalline, calcilutite (sparry); Dictyoconus sp.
680 - 720	As above; becoming more light brown in color.
720 - 740	Limestone, white to light tan, calcarenite, subcrystalline.
740 - 750	Limestone, white to light tan, calcarenite, soft.
750 - 760	As above; more grayish in color, crystalline dolomite fragments.
760 - 790	Limestone, white to light tan, calcarenite; few gray dolomite fragments.
790 - 800	Limestone, white to light tan, calcarenite; Dictyoconus sp.; minor amounts of gray dolomite, crystalline.
800 - 820	Sample missing.
820 - 830	Limestone, white, calcarenite; Lepidocyclina sp., Dictyoconus sp., Camerina sp., echinoid spines; dolomite, dark gray, crystalline; minor brown limestone (sparry).
830 - 840	Limestone, white, calcarenite, many Lepidocyclina sp., Dictyoconus sp., minor brown limestone (sparry).
840 - 860	As above; gray dolomite.
860 - 870	Dolomite, gray, crystalline; limestone, micritic, white, quartz, frosted, subangular.
870 - 880	Limestone (dolomite?), light brown, crystalline to subcrystalline; limestone, white, calcarenite; Lepidocyclina sp., Dictyoconus sp.; quartz, frosted, sand size; dolomite, gray, crystalline.
880 - 890	As above; less dolomite.
890 - 900	Limestone, white, calcarenite; forams; limestone (dolomite?) light brown, crystalline; dolomite, gray, crystalline; dolomite, dark blue, well rounded, polished?

....OKF-29 (Continued)

DEPTH (FT.)	DESCRIPTION
900 - 920	As above; increasing amounts of gray crystalline dolomite.
920 - 940	Limestone, white to light tan, calcarenite with many forams (foram coquina).
940 - 960	Limestone (dolomite?) light brown, subcrystalline to crystalline, Lepidocyclina sp.
960 - 990	Limestone, white, calcarenite, Lepidocyclina sp.; trace quartz, and gray crystalline dolomite.
990 - 1010	As above; increasing sparry calcite cement.
1010 - 1020	Limestone, white to light tan, calcarenite and sparry calcite cement; small amounts, gray crystalline dolomite and quartz sand.
1020 - 1030	As above; with Lepidocyclina sp.
1030 - 1040	Limestone, light brown, subcrystalline, calcilutite (sparry); limestone, white, calcarenite, soft; Lepidocyclina sp.

SFWMD Well No. OSF-25
Osceola County
Latitude: 28°19'55"
Longitude: 81°37'07"
Sec. 11, T 25S, R 27E
Reference Datum: land surface 99' NGVD
Owner: Holiday Inn
Drilled by: Central Florida Well Drillers
Drilling Method: Cable Tool
Cuttings Collected by: Driller
Cuttings Described by: South Florida Water Management District

DEPTH (FT.)	DESCRIPTION
0 - 30	Quartz, buff, fine to medium sand size, subangular to subrounded, well sorted, unconsolidated; trace phosphorite; trace clay towards base.
30 - 40	Quartz, brown, fine to medium sand size, subangular, unconsolidated.
40 - 50	Quartz, clear, medium sand size, subrounded, moderately sorted, unconsolidated; trace phosphorite.
50 - 60	Sample missing.
60 - 70	Quartz, clear, medium to coarse sand size, subangular to subrounded, moderately sorted, unconsolidated.
70 - 80	Quartz, green, fine sand size, angular, well sorted, trace phosphorite.
80 - 100	Clay, calcareous, gray; shell fragments, including echinoid fragments.
100 - 130	Limestone, white calcilutite, poorly consolidated; fossils present.
130 - 200	As above; *Dictyoconus sp.*
200 - 300	Limestone, white, calcilutite, poorly consolidated; trace quartz, sand size; *Dictyoconus sp.*

SFWMD Well No. OSF-26
Osceola County
Latitude: 28°11'59"
Longitude: 81°14'28"
Sec. 29, T 26S, R 31E
Reference Datum: land surface 76' NGVD
Owner: C. W. Johns
Drilled by: Locke Well and Pump
Drilling Method: Cable Tool
Cuttings Collected by: Driller
Cuttings Described by: South Florida Water Management District

DEPTH (FT.)	DESCRIPTION
10 - 20	Quartz, brown and clear, medium sand size, well sorted, subangular; trace organics, soft.
20 - 30	As above; lighter brown in color; soft.
30 - 40	Quartz, gray clear, medium sand size, well sorted, subangular; trace organics; soft.
40 - 60	Quartz, clear, medium sand size, well sorted, subrounded; trace heavy minerals.
60 - 70	Quartz, gray, clay size, poorly sorted; minor shell fragments.
70 - 80	Clay, gray; quartz, medium sand size, poorly sorted; minor shell fragments; trace heavy minerals.
80 - 130	Clay, light gray, calcareous; quartz, fine sand size, clear; heavy minerals, well sorted; minor shell fragments.
130 - 140	As above; darker gray.
140 - 150	As above; quartz, clear, coarse sand size, subrounded.
150 - 160	Clay, gray, calcareous; minor shell fragments.
160 - 170	Limestone (shell hash), poorly consolidated; clay (lime mud); quartz, clear, coarse sand size; phosphorite, coarse sand size.
170 - 190	Clay, gray to light brown, calcareous; trace quartz, fine sand size.
190 - 210	As above; light gray to green; shell fragments.
210 - 230	Shell fragments; quartz clear, sand size, poorly sorted, subangular, subrounded; phosphorite, medium sand size.

SFWMD Well No. OSF-27
Osceola County
Latitude: 28°20'51"
Longitude: 81°13'32"
Sec. 4, T 25S, R 31E
Reference Datum: Top of casing, about 64' NGVD of 1929
Owner: Lake Ajay Estates
Drilled by: Central Florida Well Drillers
Drilling Method: Cable Tool
Cuttings Collected by: Driller
Cuttings Described by: South Florida Water Management District

DEPTH (FT.)	DESCRIPTION
0 - 10	Sample missing.
10 - 20	Quartz, iron stained, medium sand to silt size, well sorted, subrounded, unconsolidated.
20 - 30	Quartz, tan, medium sand size, sorted, subrounded, unconsolidated.
30 - 40	Quartz, clear and tan, medium sand size, sorted, subrounded, unconsolidated.
40 - 50	As above; lighter in color and clear.
50 - 60	As above; few opaque grains, purple to blue, heavy minerals.
60 - 80	Quartz, clear, medium sand size, poorly sorted, subrounded, unconsolidated; few dark purple to blue opaque mineral grains (heavy minerals).
80 - 90	Quartz, clear becoming green in color (coated), medium sand size, sorted, subrounded, unconsolidated.
90 - 100	Quartz, green, silt to medium sand size, poorly sorted, subangular, compacted.
100 - 120	As above; becoming finer and more compact.
120 - 180	Quartz, green, clay, silt and medium sand size, may contain clay minerals, compact.
180 - 190	As above; trace limestone fragments.
190 - 200	As above; lighter in color.
200 - 210	As above; trace phosphorite, medium sand size.

....OSF-27 (Continued)

DEPTH (FT.)	DESCRIPTION
210 - 220	Quartz, tan to light green, silt to medium sand size, poorly sorted, subangular, subrounded; phosphorite, medium sand size.
220 - 230	Limestone, white micritic; quartz, clear, coarse sand size, poorly sorted; phosphorite, medium sand size.
230 - 240	As above; increased quartz, medium sand size.
240 - 260	Limestone, white, micritic; quartz, very coarse sand size, poorly sorted; phosphorite, medium sand size.
260 - 280	Limestone, white, micritic, minor quartz, clear, medium sand size, rounded; minor phosphorite, sand size.
280 - 310	Limestone, light brown to white, micritic; trace quartz, medium sand size, clear, rounded.
310 - 350	Limestone, light brown to white, micritic; minor quartz, medium sand size, frosted, rounded.
350 - 370	Limestone, white, micritic, sparry calcite cement, well cemented; bryozoan, Dictyoconus sp.; minor quartz, frosted, clear, rounded.
370 - 380	As above, trace quartz.
380 - 390	As above, trace dolomite; light gray, crystalline hard.
390 - 400	Limestone, white, micritic; dolomite, light gray, crystalline, hard.
400 - 410	Limestone, white, micritic, sparry calcite cement; minor quartz, medium sand size, frosted, well rounded.
410 - 420	Limestone, white to light brown, micritic; bryozoan Dictyoconus sp.; quartz, frosted, rounded; trace dolomite, gray, crystalline, hard.
420 - 430	Limestone, light brown to tan, micritic, sparry calcite cement, subcrystalline, well cemented; quartz, frosted, subrounded.
430 - 440	Sample missing.
440 - 450	Limestone, brown to tan, sparry calcite, subcrystalline, moderately cemented; Dictyoconus sp.

....OSF-27 (Continued)

DEPTH (FT.)	DESCRIPTION
450 - 470	Limestone, light brown, gray to white, micritic and sparry, calcite cement.

SFWMD Well No. OSF-31
Osceola County
Latitude: 28°17'19"
Longitude: 81°13'40"
Sec. 28, T 25S, R 31E
Reference Datum: Top of Casing +79' NGVD
Owner: Carrol Fulner
Driller by: Central Florida Well Drillers, Inc.
Cuttings Collected by: Driller
Cuttings Described by: South Florida Water Management District

DEPTH (FT.)	DESCRIPTION
0 - 10	Quartz, clean, fine sand size, subangular, unconsolidated; trace organics.
10 - 30	Quartz, iron stained, clear, fine sand size, poorly sorted, angular to subangular, unconsolidated; trace organics.
30 - 40	Quartz, iron stained, clear, fine to medium sand size, poorly sorted, subangular to subrounded, poorly consolidated; trace clay.
40 - 70	Clay, gray, plastic; quartz, medium sand and silt size; trace fine phosphorite; rounded shell fragments.
70 - 80	Clay, gray, plastic; quartz, fine sand and silt size; phosphorite; shell fragments.
80 - 90	Limestone, shell hash, white to gray, poorly consolidated, shell preservation good; clay, gray; quartz, clear, subrounded; minor black organics.
90 - 100	Limestone, light gray, shell hash, poorly consolidated; quartz, medium sand size, subangular, poorly sorted; trace phosphorite; trace clay.
100 - 110	Limestone, sandy, light gray, shell hash, poorly consolidated; quartz, clean, subrounded, poorly sorted; trace phosphorite; trace clay.
110 - 120	Clay, calcareous, light gray, shell fragments, abundant; quartz, clean, subangular, poorly sorted; trace phosphorite.
120 - 150	Sandstone, calcareous, light gray to gray, quartz, medium sand to silt size, subrounded to rounded, poorly sorted, calcite cement, poorly cemented; shell fragments, minor phosphorite, sand size.

....OSF-31 (Continued)

DEPTH (FT.)	DESCRIPTION
120 - 150	Sandstone, calcareous, light gray to gray, quartz, medium sand to silt size, subrounded to rounded, poorly sorted, calcite cement, poorly cemented; shell fragments, minor phosphorite, sand size.
150 - 170	Sandstone, calcareous, white to light gray, quartz, medium sand to silt size, angular to subangular, poorly sorted, calcite cement, poorly cemented; shell fragments; minor phosphorite, medium sand to silt size.
170 - 180	Sandstone, calcareous, light gray, quartz, medium sand to silt size, subangular to subrounded, poorly sorted, calcite cement, cemented; shell fragments, minor internal shell molds; minor phosphorite, medium sand to silt size.
180 - 190	Sandstone, calcareous, gray, quartz, fine sand to silt size, subangular, sorted, calcite cement, poorly cemented; shell fragments; minor phosphorite, silt size.
190 - 200	Sandstone, calcareous, light green, quartz, fine sand size to silt size, subangular, moderately sorted, calcite cement, poorly cemented; shell fragments; minor phosphorite, medium sand size.
200 - 210	Sandstone, calcareous, light green, quartz, fine sand to silt size, angular to subangular, sorted, calcite cement, poorly cemented; shell fragments; minor phosphorite, medium sand to silt size.
210 - 220	Sandstone, calcareous, light to medium green, quartz, medium sand to silt size, subrounded, poorly sorted, calcite cement, poorly cemented; abundant shell fragments; trace phosphorite, silt size.
220 - 230	Sandstone, calcareous, very light gray, quartz, medium sand to silt size, subrounded, poorly sorted, calcite cement, poorly cemented; abundant shell fragments; trace phosphorite, silt size.
230 - 240	Sandstone, calcareous, light green, quartz, medium sand size, subrounded, sorted, calcite cement, poorly cemented; shell fragments; trace phosphorite, medium sand size.
240 - 250	Limestone, white to light tan, hard, micritic; quartz, clear, medium sand size; trace phosphorite, fine sand to silt size.

....OSF-31 (Continued)

DEPTH (FT.)	DESCRIPTION
250 - 260	Limestone, white to light tan, hard, micritic; quartz, clear, rounded to well rounded; trace phosphorite, medium sand size.
260 - 270	Limestone, white, moderately hard, micritic; quartz, clear, medium sand size, rounded; minor phosphorite, fine sand size.
270 - 290	Limestone, white to light tan, moderately hard, biomicritic; Dictyoconus sp.; quartz, clear, medium sand size, subangular; minor phosphorite, medium sand size.
290 - 300	Limestone, white to cream, hard, micritic; no Dictyoconus sp. observed; quartz, clear, medium sand size, rounded; trace phosphorite, medium sand size.
300 - 310	Limestone, white, hard, micritic, grainy texture; quartz, clear, medium sand size, rounded; trace phosphorite, medium sand size.
310 - 320	Limestone, white, hard, biomicritic; shell fragments; quartz, clear, medium sand size, rounded; trace phosphorite, medium sand size.
320 - 330	Limestone, white, hard, micritic, grainy texture; quartz, clear, medium sand size, rounded; trace phosphorite, medium sand size.
330 - 400	Limestone, white, moderately hard, foraminiferal biosparite; minor quartz, clear, medium sand size; subangular; minor dolomite, brown, sucrosic; trace phosphorite; Dictyoconus sp.
400 - 410	Sample missing.
410 - 440	Limestone, cream, moderately hard, subcrystalline; shell fragments; dolomite?; minor quartz, medium sand size, rounded; phosphorite; Dictyoconus sp.
440 - 460	Limestone, cream, moderately hard, biosparite; dolomite, brown and gray.
460 - 480	Limestone, white, hard, subcrystalline; dolomite?; Dictyoconus sp.

SFWMD Well No. OSF-45
Osceola County
Latitude: 28°20'46"
Longitude: 81°12'50"
Sec. 5, T 24S, R 31E
Reference Datum:
Owner: Majestic Oaks
Drilled by: Central Florida Well Drillers
Drilling Method: Cable Tool
Cuttings Collected by: Driller
Cuttings Described by: South Florida Water Management District

DEPTH (FT.)	DESCRIPTION
0 - 40	Quartz, dark brown, fine sand size, well sorted, angular, unconsolidated.
40 - 50	As above; also minor clay.
50 - 60	Quartz, tan, medium sand size, poorly sorted, angular, unconsolidated; minor clay.
60 - 80	Quartz, gray, sand size, angular, moderately sorted, unconsolidated; minor calcareous clay; minor shell fragments.
80 - 90	As above; increase in calcareous clay, and shell fragments.
90 - 100	Limestone, gray, calcilutite; shell fragments; minor chert, pebbles.
100 - 110	Limestone, light gray, soft calcilutite; quartz, silt size; minor clay; minor shell fragments.
110 - 120	Clay, gray, calcareous; abundant shell material.
120 - 130	As above; also minor quartz sand.
130 - 140	Quartz, medium sand size, moderately sorted, subrounded; abundant calcareous clay (matrix?); shell fragments; trace phosphorite.
140 - 150	Clay, gray, calcareous; abundant shell fragments; minor quartz sand; minor phosphorite.
150 - 190	Quartz, medium sand size, moderately sorted, subangular; abundant clay matrix; trace phosphorite.
190 - 200	As above; limestone, finely crystalline; minor phosphorite.

....OSF-45 (Continued)

DEPTH (FT.)	DESCRIPTION
200 - 210	Limestone, white, calcarenite, moderately hard; quartz, medium sand size, well rounded.
210 - 220	As above; also minor phosphorite.
220 - 270	Limestone, white, calcilutite, soft; minor quartz sand, trace phosphorite.
270 - 280	Limestone, white, calcilutite, soft; abundant quartz, medium sand size; trace phosphorite.
280 - 290	As above; less quartz.
290 - 300	As above; also minor hard pebble phosphorite.
300 - 310	Limestone, cream, calcarenite, poorly consolidated; minor quartz, medium sand size, well rounded.
310 - 340	Limestone, white, calcilutite, soft; trace quartz, medium sand size.
340 - 350	No sample.
350 - 400	As 310' - 340'.
410 - 420	Dolomite?, tan, micro sucrosic, poorly consolidated; minor quartz, medium sand size.
420 - 430	As 310' - 340'.
440 - 450	Limestone, white, calcilutite, hard; trace quartz sand.

WELL NUMBER	:	HIF-41
COUNTY	:	Highlands
LOCATION	:	T. 35S, R 30E, Sec. 7
TOTAL DEPTH	:	1200'
ELEVATION	:	
COMPLETED	:	
OWNER	:	Sebring Utilities Company
DRILLER	:	Jerry Hickman
REMARKS	:	Descriptions from driller

DEPTH (FT.)	DESCRIPTION
0 - 10	Brown sand.
10 - 25	Dark brown sand.
25 - 110	Dark brown and black sand.
112 - 150	Dark brown, sandy clay.
163 - 180	Silica sand, light gray lime.
180 - 195	Shell, sand, white and gray lime.
200 - 215	Blue clay, broken lime.
220 - 245	Blue clay, white lime.
245 - 248	Hard lime, blue clay.
248 - 255	Blue and gray clay, gray lime, shell.
255 - 265	Blue clay.
267 - 275	White lime, dark gray clay.
275 - 295	Blue clay.
300 - 340	Hard white lime, blue clay.
345 - 360	White lime, blue clay, gray phosphate clay.
360 - 370	White lime, gray phosphate clay.
370 - 390	Hard white lime.
390 - 393	Soft white lime.
393 - 398	Medium hard, white lime.
398 - 400	White clay.
400 - 402	Hard white lime.

HIF-41 (continued)

DEPTH (FT.)	DESCRIPTION
402 - 410	Soft white lime, white clay.
415 - 425	Hard white lime.
430 - 520	Hard tan lime.
420 - 540	Tan lime with streaks of gray clay.
540 - 630	Tan lime.
630 - 670	Tan lime with streaks of blue clay.
680 - 710	Tan lime, some sandstone.
710 - 750	Tan lime with streaks of blue clay.
750 - 770	Tan lime.
770 - 790	Tan lime, soft white lime.
793 - 803	Hard tan lime.
805 - 830	Tan lime, white lime.
830 - 855	Tan lime, white lime, soft gray lime.
860 - 880	Tan lime, white lime.
880 - 940	Hard tan lime.
940 - 945	Tan lime, soft dolomite.
945 - 965	Tan lime.
973 - 985	Tan lime, soft dolomite.
990 - 1090	Tan lime.
1090 - 1100	Hard brown dolomite.
1100 - 1200	Tan dolomite.

WELL NUMBER	:	OKF-23 (W-2844)
COUNTY	:	Okeechobee
LOCATION	:	T. 37S., R. 35E., sec. 17, SE¼ NW¼
TOTAL DEPTH	:	925'
ELEVATION	:	34'
COMPLETED	:	10/51
OWNER	:	John Abney
DRILLER	:	M. M. Martin
REMARKS	:	Descriptions from anonymous

DEPTH (FT.)	DESCRIPTION
0 - 65	No samples.
65 - 100	Sand, quartz, light gray, fine to coarse, clear; with many mollusk shells, coral and echinoid fragments.
100 - 120	Sand, quartz, micaceous, clayey, fine to medium; with small particles of dark phosphorite and a small amount of hard, gray, sandy, phosphatic limestone and a few shell fragments.
120 - 135	Silt, clayey, very finely sandy, micaceous, light gray-green; with small particles of dark phosphorite and fragments of Pectinidae.
150 - 165	Clay, finely sandy and phosphatic, silty, micaceous, dark gray-green; with a few mollusk fragments.
165 - 175	Clay as above but dark blue-green; with mollusk fragments and light to dark colored phosphorite pebbles up to 10 mm in diameter.
175 - 205	Clay, micaceous, pure, fissile, dark greenish-brown.
205 - 250	Sand, quartz, clayey, olive drab, medium to coarse; with small dark phosphorite particles and numerous mollusk fragments.
250 - 275	Clay, very sandy, micaceous, very dark greenish-brown, sand, fine to some very coarse, average medium with phosphorite as above; very few mollusk fragments.
275 - 285	As above plus some plastic blue-green shale.
285 - 300	As above, plus a small amount of hard, gray-brown, sandy, phosphatic limestone.
300 - 345	Clay, sandy, micaceous, olive drab; sand fine to few coarse grains.

OKF-23 (Continued)

DEPTH (FT.)	DESCRIPTION
345 - 380	As above, but gray-green in color.
380 - 400	Clay, slightly sandy, micaceous, plastic, dark gray-green; with numerous small phosphorite particles.
400 - 450	Clay, pure, gray-green to blue-green.
450 - 460	Clay, slightly sandy, phosphatic, gray-green; with a small amount of tan, hard, sandy, phosphatic limestone and some mollusk fragments.
460 - 470	Clay as above plus some finely crystalline, tan limestone; finely sandy and phosphatic, gray to dark gray limestone; dark chert and phosphorite pebbles up to 5 mm. in diameter. Worn mollusk fragments.
470 - 490	Clay, pure, plastic, gray-green, phosphatic; with some material as above.
490 - 515	As above, but light gray in color.
515 - 525	As above, plus large phosphorite pebbles and numerous mollusk fragments.
525 - 540	Clay, tan gray; with pebbles of phosphorite up to 4 mm. in diameter. Mollusk fragments, coral bryozoa and foraminifera.
540 - 550	As above, plus some light gray-green clay.
550 - 602	Clay, tan-gray; with phosphorite pebbles, light colored chert; mollusk fragments.
602 - 625	Limestone, tan-gray, hard; with phosphorite and quartz sand, cuttings very fine.
625 - 635	Limestone, tan, hard, cuttings very fine.
635 - 655	As above, plus a few forams. *Lepidocyclina ocalana*, *Camerina* sp., coral.
655 - 670	As above, but a little lighter in color and with more forams.
670 - 690	Foraminiferal coquina, cream. Forams mostly *Lepidocyclina* and *Camerina*.

OKF-23 (Continued)

DEPTH (FT.)	DESCRIPTION
690 - 750	As above, plus some cream, chalky limestone. Some of the forams are dark in color.
750 - 765	Limestone, cream, harder than above, with some dark gray crystalline limestone, Camerina the most abundant foram, few Lepidocyclina.
765 - 775	As above, plus some crystalline calcite and some chalky limestone. Camerina moodybranchensis. Coiled calcareous tubes.
775 - 790	Limestone, Peronella coquina, tan, hard; with some finely crystalline, porous, hard, cream limestone. Sample composed almost entirely of crystalline fragments and well preserved specimens of Peronella dalli, with a few forams - Dictyoconus cookei and Coskinolina floridana.
790 - 805	As above, but cuttings are smaller.
805 - 830	Limestone, cream, hard, chalky, porous; with many tan crystalline fragments of Peronella.
830 - 850	Limestone, cream, hard to some soft, chalky, porous; with echinoid fragments as above and foraminifera.
850 - 925	As above, plus some cream, hard; dense limestone.

WELL NUMBER	:	OKF-24
COUNTY	:	Okeechobee
LOCATION	:	T. 37S., R. 36E., sec. 29
TOTAL DEPTH	:	1448'
ELEVATION	:	30'
COMPLETED	:	January 1953
OWNER	:	J. G. Kelley
DRILLER	:	M. M. Martin
REMARKS	:	Descriptions from driller

DEPTH (FT.)	DESCRIPTION
0 - 90	No sample.
90 - 100	Marl, shelly, clayey, sandy (fine to coarse, clear to some frosted, angular to rounded), gray. Mollusk fragments, coral; echinoid fragments.
100 - 125	Clay, sandy, shelly, gray-brown; with sand as above and some black phosphorite? Mollusk fragments - numerous small gastropods; coral; echinoid fragments.
125 - 160	Silt, finely sandy, clayey, light olive-drab. Sponge spicules.
160 - 185	Sandstone, calcareous, gray, hard; with phosphorite pebbles up to 8 mm. in diameter and some very large quartz grains containing dark micaceous inclusions. Forams.
185 - 250	Clay, montmorillonitic; slightly silty, sandy, and phosphatic; blue-green; with many well preserved forams.
250 - 285	Sand, medium to some very coarse, sub-angular, some grains are smoky and some contain micaceous inclusions, clayey dark olive-drab. A few fossils as above.
285 - 390	Sand, very fine to some coarse, very silty, clayey, olive-drab. Very few fossils.
390 - 460	Clay, very sandy (fine to very coarse, some grains contain micaceous inclusions), phosphatic, olive-dark. Very micro-fossiliferous; forams - Robulus americanus.
460 - 500	Clay, finely sandy, phosphatic, olive-dark. Fossils as above.
500 - 520	Clay, micaceous, sandy (fine to very coarse, many smoky and micaceous grains), olive-drab; with dark phosphorite grains. Forams sponge spicules.
520 - 570	As above but dark blue-green.
570 - 585	Clay, pure, dark green.

OKF-24 (Continued)

DEPTH (FT.)	DESCRIPTION
585 - 600	Clay, silty, dark green; with numerous small particles of phosphorite.
600 - 630	Clay, slightly silty, light gray-green; with few phosphorite particles. Forams.
630 - 650	Clay, very finely sandy, phosphatic, gray.
650 - 670	Clay, pure, gray-green.
670 - 700	Clay, plastic, blue-green; with small phosphorite particles.
700 - 710	Clay, finely sandy, gray; with numerous small brown to black phosphorite particles. Forams *Textularia*, *Cibicides*, *Bolivina* and others, a few mollusk fragments.
710 - 715	As above but gray-brown in color.
715 - 765	Clay, finely sandy, gray-brown, with numerous small particles of brown to black phosphorite. A few small forams and some mollusk fragments.
765 - 810	Clay, plastic, gray-green; with a small amount of fine sand and small phosphorite particles. Small forams.
810 - 830	Clay, plastic, finely sandy (sand mostly calcite rhombs), phosphatic, gray-brown. Few forams.
830 - 845	Limestone, very sandy, very phosphatic, hard, dense; with some chert. Mollusk fragments, few forams.
845 - 850	As above but with sand and phosphorite making up 30 or 40 percent of sample. Ostracods; echinoid spines.
850 - 855	As above plus some cream, hard, granular to porcellaneous limestone. *Lepidocyclina*?
855 - 860	Limestone, cream, hard, dense, calcitic. *Lepidocyclina ocalana*.
860 - 875	Limestone, cream, hard to soft, granular to chalky, slightly porous. Very foraminiferous. *Lepidocyclina* as above plus others.
875 - 880	As above but soft.
880 - 885	Limestone, dark cream, moderately hard, granular. Mollusk fragments, forams as above.

OKF-24 (Continued)

DEPTH (FT.)	DESCRIPTION
885 - 920	Limestone, cream, moderately hard to soft, granular to chalky. Forams as above.
920 - 925	Large foraminiferal coquina, cream, moderately hard to soft; with a small amount of secondary calcite. Forams as above plus Camerina moodybranchensis? echinoid spines; some of the fossils are covered with tiny black specks.
925 - 930	As above but in a gray-brown, clayey, chalky matrix. Small echinoids.
930 - 945	Limestone, cream, soft, granular to chalky. Fossils as above.
945 - 950	As above plus some coral fragments.
950 - 960	As above plus some cream, hard crystalline limestone. Fossils as above plus Peronella dalli, ostracods, small gastropods, miliolids.
960 - 970	Limestone, cream, hard, granular to calcitic; small gastropods; miliolids. Lepidocyclina sp. Camerina sp. - No Avon Park forams noted; many crystalline fragments of Peronella dalli.
970 - 980	As above plus some soft, chalky, cream limestone. Fossils as above plus Coskinolina floridana and Dictyoconus cookei.
980 - 990	As above plus numerous ostracods.
990 - 1000	As above plus Valvulina intermedia?
1000 - 1025	Limestone, cream, hard to soft, crystalline to chalky, porous to dense. Peranella fragments; Coskinolina floridana, Dictyoconus cookei, Spirolina carvensis, Lepidocyclina sp., Camerina sp., small gastrapods; ostracods.
1025 - 1040	As above plus Valvulina intermedia.
1040 - 1055	Limestone, tan, medium hard, granular, crystalline, porous. Fossils as above plus Lituonella floridana, miliolids and Charophyte oogonia.
1055 - 1075	As above but harder. Fossils as above plus Cribrobulimina cushmanii.

OKF-24 (Continued)

DEPTH (FT.)	DESCRIPTION
1075 - 1090	As above but softer.
1090 - 1100	Limestone, cream to tan, hard to soft, granular to chalky, crystalline, porous to dense. Fossils as above.
1100 - 1135	As above plus some tan-gray, hard, dense, crypto-crystalline limestone. Fossils as above plus some coral.
1135 - 1150	Limestone, tan, medium hard to soft, granular, porous. Coskinolina floridana, Lituonella sp., valvulina avonparkensis? not as fossiliferous as above.
1150 - 1160	As above plus Textularia corvensis, Valvulina intermedia, Cribrovulimina cushmanii.
1160 - 1175	As above plus crystalline calcite. Fossils as above plus Spirolina coryensis.
1175 - 1180	As above plus some brown to cream, finely crystalline hard limestone or dolomitic limestone.
1180 - 1190	As above plus some cream colored, hard, porcelleanous, porous to dense limestone.
1190 - 1210	Limestone, tan, medium, hard, granular, calcitic, porous. Fossils as above plus miliolids and ostracods.
1210 - 1240	Limestone, hard to soft, tan, granular to chalky, porous; with some cream to gray, hard dense, porcellaneous limestone. Fossils as above plus numerous large miliolids.
1240 - 1260	Limestone, tan to light brown, hard, granular, calcitic, fossils as above.
1260 - 1270	As above plus some tan to light brown, hard, finely crystalline limestone. Fossils as above plus a ribbed miliolid.
1270 - 1290	Limestone, tan to cream, medium hard, granular to chalky, calcitic. Fossils as above.
1290 - 1300	Limestone, tan, medium hard, granular, calcitic. Fossils as above.
1300 - 1310	As above but light brown to cream in color.

OKF-24 (Continued)

DEPTH (FT.)	DESCRIPTION
1310 - 1320	As above plus gray, hard, finely crystalline, porous to dense limestone.
1320 - 1330	Limestone, tan, medium hard, granular to chalky, crystalline, porous. Fossils as above.
1330 - 1340	As above plus the gray limestone in 1320'. Charophyte oogania.
1340 - 1360	As above but with less gray limestone.
1360 - 1370	Limestone, tan, medium hard, granular, calcitic, porous; and limestone, white to cream, medium hard to soft, granular to chalky, porous. *Coskinolina floridana* very abundant. *Dictyoconus americanus*; *D. Cookei*, and miliolids, very few other fossils.
1370 - 1380	As above plus some brown, hard, finely crystalline dolomite.
1380 - 1448	Dolomite, brown, hard, waxy; with some material as in 1370'.

WELL NUMBER	:	OKF-26 (W-4480)
COUNTY	:	Okeechobee
LOCATION	:	
TOTAL DEPTH	:	825'
SAMPLES	:	43 samples from 0 - 825'
COMPLETED	:	12/13/57
OWNER	:	Florida School for Boys
DRILLER	:	Gray Well and Pump
REMARKS	:	Descriptions from driller

DEPTH (FT.)	DESCRIPTION
0 - 10	Quartz sand, dark yellowish-gray, fine to medium - average medium, curvilinear, frosted.
10 - 20	Shell marl, broken shell fragments in slightly clayey, olive-drab, fine to medium quartz sand. Chione cancellata, Turella sp., Oliva sp., and others.
20 - 33	As above.
33 - 45	As above but with much clay.
45 - 65	Clay, dark grayish-green, very finely sandy, slightly shelly.
65 - 85	Shell marl, broken shells in slightly clayey, slightly sandy, dark yellowish-gray quartz sand.
85 - 105	Shell marl, broken shells in very phosphoritic (black, rounded pebbles), calcitic, slightly clayey, olive-drab quartz sand. Sharks teeth, echinoid spines, Pecten sp.
105 - 125	As above but darker in color.
125 - 160	No sample.
160 - 180	Quartz sand, dark yellowish-gray, slightly clayey, phosphoritic, mollusk fragments very abundant.
180 - 200	As above but darker in color.
200 - 220	Clay, very dark bluish-green, sandy, very finely micaceous, calcitic, phosphoritic, with mollusk fragments.
220 - 240	Clay, very dark bluish-green, slightly sandy, finely micaceous, with a few small fragments of shell.
240 - 260	Clay, dark olive-drab, very sandy, phosphoritic, with mollusk fragments.
260 - 300	As above.

OKF-26 (W-4480) (Continued)

DEPTH (FT.)	DESCRIPTION
300 - 320	Quartz sand, dark olive-drab, clayey, shelly, phosphoritic, fine to very coarse.
320 - 340	As above but with less very coarse quartz sand.
340 - 360	As above.
360 - 380	Clay, light olive-drab, slightly micaceous, very sandy (fine to coarse), shelly, phosphoritic.
380 - 400	As above but not as sandy.
400 - 480	As above.
480 - 500	Clay, light olive-drab to light yellowish-gray, very finely calcitic, slightly micaceous, finely sandy and phosphorotic, shell fragments.
500 - 520	As above but very phosphoritic.
520 - 580	As above.
580 - 609	As above but mostly olive-drab in color.
609 - 620	Limestone, light to some dark yellowish-gray, calcitic, hard, sandy, phosphoritic, molds and casts of mollusks and mollusk fragments.
620 - 640	Limestone, light yellowish-gray, very finely granular, slightly calcitic, fairly hard, poor intergranular porosity. Gypsina globula, echinoid spines, Camerina sp.
640 - 660	As above plus Lepidocylina ocalana - Camerina sp. very abundant.
660 - 680	As above.
680 - 700	As above - cuttings very fine.
700 - 720	No sample.
720 - 740	As 640 - 660'.
740 - 760	As above.
760 - 780	As above - very fossiliferous.
780 - 800	Limestone, yellowish-gray, finely granular in chalky to crystalline matrix, soft, low intergranular porosity. Coskinolina floridana, algae fragments, Textularia coryensis.

WELL NUMBER	:	OKF-27 (W-4572)
COUNTY	:	Okeechobee
LOCATION	:	
TOTAL DEPTH	:	725'
SAMPLES	:	38 samples from 0 - 725'
COMPLETED	:	2/1/58
OWNER	:	Florida School for Boys
DRILLER	:	Gray Well and Pump Co.
REMARKS	:	Descriptions from driller

DEPTH (FT.)	DESCRIPTION
0 - 20	Quartz sand, pale yellow-brown, fine to medium, subangular to subrounded, grains coated with clayey matrix.
20 - 40	Quartz sand, pale yellow-brown, fine to medium with some coarse grains - clay matrix coating on grains. Many macro shell fragments. Echinoid spines, Oliva sp., pectens and gastropods.
40 - 60	As above, with more shell fragments and yellow-gray in color.
60 - 80	Shell marl, very pale orange, some fine to medium sand, broken macro shells very abundant.
80 - 100	As above.
100 - 105	As above.
105 - 125	Silt, pale olive to dusky yellow-green, clayey and very finely sandy. Some microfossils and few macro-fossils. Few phosphorite grains.
125 - 145	As above, with increase of phosphorite.
145 - 165	Shell marl, yellowish gray, abundant broken shells, clacitic, slightly clayey, phosphoritic, sandy.
165 - 185	As above.
185 - 205	As above, with increase in sand.
205 - 225	As above, but darker in color with increased phosphorite; clay, pale olive, slightly micaceous, silty, phosphoritic, soft.
225 - 245	Clay, yellowish gray, soft, silty to finely sandy, phosphoritic, microfossils, few shell fragments.
245 - 265	Clay, grayish olive, as above.

OKF-27 (W-4572) (Continued)

DEPTH (FT.)	DESCRIPTION
265 - 285	Quartz sand, pale olive, fine to coarse, grains coated with clayey matrix, few shell fragments.
285 - 305	Quartz sand, grayish olive, fine to coarse, in clay matrix, micaceous, phosphoritic, silty. Few shell fragments.
305 - 325	As above, with more increase in fine sand and clay.
325 - 345	Quartz sand, pale olive, very fine to fine, with some coarse, very calcitic, phosphoritic, clayey.
345 - 365	Quartz sand, pale olive, very fine to coarse, clayey, very calcitic, phosphoritic.
365 - 385	Marl, pale olive, very much as above with less medium to coarse sand, slightly micaceous.
385 - 425	As above.
425 - 445	Clay, pale grayish olive, slightly silty, microfossiliferous, blocky.
445 - 472	As above.
472 - 477	Limestone, pale greenish yellow, soft, very finely crystalline, very abundantly finely phosphoritic, with large (5-10 mm) phosphorite pebbles, finely sandy.
477 - 585	As above.
585 - 605	As above, with increase of large pebbles of phosphorite.
605 - 625	As above.
625 - 645	As above, with marked decrease in phosphorite.
645 - 665	As above.
665 - 685	Limestone, very pale orange, very finely crystalline, finely ground up, microfossiliferous. *Operculina* sp., Echinoid spines, *Gypsina globula*, *Rotalia* sp.
685 - 705	As above, but becomming microcoquinoid.
705 - 725	As above. Lepidocyclinas abundant. Camerinas abundant.

WELL NUMBER	:	ORF-43
COUNTY	:	Orange
LOCATION	:	T. 23S, R. 30E, Sec. 33
TOTAL DEPTH	:	500'
COMPLETED	:	10/31/80
OWNER	:	The Greater Orlando Aviation Authority
DRILLER	:	Central Florida Well Drillers, Inc.
REMARKS	:	Descriptions from driller

DEPTH (FT.)	DESCRIPTION
0 - 5	Sand.
5 - 20	Hard pan and muck.
20 - 35	Clay.
35 - 70	Clay and sand.
70 - 80	Blue clay.
80 - 100	Clay and sand.
100 - 160	Clay, shell and sand.
160 - 170	Sand and shell.
170 - 180	Clay and gravel.
180 - 198	Clay.
198 - 230	Gray limerock.
230 - 245	Medium hard, white limerock.
245 - 265	Soft white limerock.
265 - 330	White limerock.
330 - 365	Medium hard, brown limerock.
365 - 380	Hard brown limerock.
380 - 500	Extra hard brown limerock.

WELL NUMBER	:	OSF-10
COUNTY	:	Osceola
LOCATION	:	28°19"37', 81°25"01'
TOTAL DEPTH	:	458'
ELEVATION	:	
SAMPLES	:	
COMPLETED	:	8/27/69
OWNER	:	City of Kissimmee
DRILLER	:	
REMARKS	:	Descriptions from driller

DEPTH (FT.)	DESCRIPTION
0 - 11	Sand.
11 - 15	Hard pan.
22 - 30	Sand.
30 - 55	Blue clay.
55 - 60	Clay and shells.
60 - 90	Clay, sand and shells.
90 - 140	Clay and Shells.
140 - 150	Sand, soft.
150 - 178	Shells and clay, soft.
178 - 188	White lime and shells.
188 - 215	Light brown lime and shells.
215 - 275	Light brown lime, medium and soft streaks.
275 - 282	Brown lime, hard.
282 - 288	Brown lime, medium.
288 - 323	Brown lime, medium.
323 - 333	White and light brown lime, soft.
333 - 364	Light brown lime, medium and soft streaks.
364 - 370	Light brown lime, hard, some clay.
370 - 407	Brown lime, hard, lost circulation at 406 ft.
407 - 409	Cavity.

OSF-10 (Continued)

DEPTH (FT.)	DESCRIPTION
409 - 412	Brown lime, hard.
412 - 416	Cavity.
416 - 445	Brown lime, medium.
445 - 458	Brown lime, hard.

WELL NUMBER	:	OSF-9
COUNTY	:	Osceola
LOCATION	:	28°19"37', 81°24"59'
TOTAL DEPTH	:	1200'
ELEVATION	:	
SAMPLES	:	
COMPLETED	:	10/11/69
OWNER	:	City of Kissimmee
DRILLER	:	
REMARKS	:	Descriptions from driller

DEPTH (FT.)	DESCRIPTION
0 - 3	Top soil.
3 - 7	Sand.
7 - 11	Hard pan.
11 - 21	Sand.
21 - 45	Clay.
45 - 50	Sand.
50 - 70	Blue clay.
70 - 85	Sand, clay and shells.
85 - 90	Clay, shells some lime.
90 - 160	Clay and some shells.
160 - 170	Clay and some shells.
170 - 180	Green clay and shells.
180 - 247	White lime.
247 - 270	Light brown lime.
270 - 285	Light brown lime (hard).
285 - 364	Light brown lime, medium and soft streaks.
364 - 371	Brown lime, hard.
371 - 379	Light brown lime (medium).
379 - 412	Brown lime (hard).
412 - 455	Brown lime (medium).

OSF-9 (Continued)

DEPTH (FT.)	DESCRIPTION
455 - 472	Brown lime (hard).
472 - 530	Light brown lime (soft).
530 - 537	Light brown lime (medium).
537 - 540	Light brown lime (hard).
540 - 554	Light brown lime (medium).
554 - 650	Light brown lime (soft).
650 - 720	Light brown lime, medium and hard streaks.
720 - 750	Light brown lime, hard and soft streaks, some water.
750 - 797	Light brown lime streaks, dark (medium) and soft streaks.
797 - 965	Light brown lime, medium and soft streaks.
965 - 980	Gray lime.
980 - 1043	Light brown lime (medium), soft streaks.
1043 - 1050	Light brown, lime hard.
1050 - 1090	Light brown lime, medium.
1090 - 1116	Light brown lime, hard.
1116 - 1137	Dark brown lime, medium-hard, and soft streaks.
1137 - 1200	Dark brown lime streaks of gray and light brown lime.

WELL NUMBER	:	OSF-3
COUNTY	:	Osceola
LOCATION	:	27°52"22', 81°03"07'
TOTAL DEPTH	:	300'
ELEVATION	:	
SAMPLES	:	
COMPLETED	:	4/3/74
OWNER	:	
DRILLER	:	
REMARKS	:	Description from driller

DEPTH (FT.)	DESCRIPTION
0 - 4	Black sand, probably fill.
4 - 8	Black clay, decayed vegetation.
8 - 11	Brown silky sand.
11 - 43	Sandy gray clay stringers, brown silky sand.
43 - 51	Brown silky sand.
51 - 56	Brown silky sand, trace of shell.
56 - 65	Shell and sandy gray clay.
65 - 68	Sand and shell.
68 - 85	Gray clay and shell.
85 - 93	Sand.
93 - 98	Gray clay and shell.
98 - 110	Limey gray clay and shell.
110 - 120	Sand and shell.
120 - 130	Sand-shell.
130 - 145	Green clay.
145 - 170	Sandy green clay.
170 - 180	Sandy, green clay and shell.
180 - 230	Dark green clay with trace of shell.
230 - 237	Green clay, traces of limey gray clay.
237 - 243	Green colored rock, black phosphate pebbles.
243 - 250	Hard green clay.

OSF-3 (Continued)

DEPTH (FT.)	DESCRIPTION
250 - 260	Green clay with fine sand and shell particles.
	Great abundance of phosphate-lime particles, small green rock particles and fragments.
260 - 270	Greater percentages of green clay with traces of green rock.
	Some gray-white rock fragments found in sample.
270 - 280	Some white clay with traces of soft lime.
280 - 290	Phosphate again with clay.
290 - 300	Green, clay with phosphate sand, traces of white lime fragments.

WELL NUMBER	:	OSF-4
COUNTY	:	Osceola
LOCATION	:	27°56"09', 81°32"00'
TOTAL DEPTH	:	400'
ELEVATION	:	
SAMPLES	:	
COMPLETED	:	6/2/67
OWNER	:	
DRILLER	:	Roland Young
REMARKS	:	Descriptions from driller

DEPTH (FT.)	DESCRIPTION
0 - 30	White sand.
30 - 60	White sand.
60 - 90	White sand.
90 - 100	White sand.
100 - 120	Blue marl.
120 - 230	Blue marl.
230 - 260	Shell and white marl.
260 - 320	White marl and white lime.
320 - 380	White lime.
380 - 400	Hard brown lime.

WELL NUMBER	:	OSF-15
COUNTY	:	Osceola
LOCATION	:	28°06"32', 81°05"01'
TOTAL DEPTH	:	718
ELEVATION	:	
SAMPLES	:	
COMPLETED	:	4/28/65
OWNER	:	Roper Grove
DRILLER	:	H. Scott
REMARKS	:	Descriptions from driller

DEPTH (FT.)	DESCRIPTION
0 - 40	Sand.
40 - 50	Shell, sand.
50 - 115	Shell, green mud.
115 - 150	Sand, shell.
150 - 160	Green, sand, shell.
160 - 185	Blue gumbo.
185 - 265	Green gumbo.
265 - 270	White lime, sand, shell.
270 - 305	Lime rock, sand, shell.
305 - 330	White lime, sand, shell.
330 - 350	White lime, soft.
350 - 515	White lime, medium.
515 - 700	Light brown lime.
700 - 718	Dark brown lime.

WELL NUMBER	:	OSF-23
COUNTY	:	Osceola
LOCATION	:	28°11"44', 81°21"39'
TOTAL DEPTH	:	550'
ELEVATION	:	
SAJPLES	:	
COMPLETED	:	10/31/62
OWNER	:	
DRILLER	:	
REMARKS	:	Descriptions from driller

DEPTH (FT.)	DESCRIPTION
0 - 60	Sand.
60 - 100	Clay and shell.
100 - 190	Blue gumbo.
190 - 240	Lime and shell.
240 - 270	Coral shell.
270 - 320	Brown hard lime.
320 - 520	Light brown lime rock.
520 - 535	Hard brown rock.
535 - 550	Hard brown lime rock.

WELL NUMBER	:	POF-19
COUNTY	:	Polk
LOCATION	:	
TOTAL DEPTH	:	837'
ELEVATION	:	
SAMPLES	:	
COMPLETED	:	12/15/62
OWNER	:	Nalcrest
DRILLER	:	
REMARKS	:	Descriptions from driller

DEPTH (FT.)	DESCRIPTION
0 - 48	Top soil.
48 - 59	White sand.
59 - 158	Clay and rock.
158 - 186	Hard rock.
186 - 195	Sand.
195 - 200	Hard rock.
200 - 240	Sand and clay.
240 - 250	Sand.
250 - 340	Broken formation
340 - 355	Firm lime.
355 - 370	Broken formation.
370 - 380	Firm lime.
380 - 510	Soft lime.
510 - 515	Firm lime.
515 - 590	Soft lime.
590 - 600	Firm lime.
600 - 630	Soft lime.
630 - 635	Firm lime.
635 - 670	Soft lime.
670 - 680	Firm lime.

POF-19 (Continued)

DEPTH (FT.)	DESCRIPTION
680 - 805	Firm limestone.
805 - 811	Very hard limestone.
811 - 837	Very hard rock (water).

WELL NUMBER : OSF-22
COUNTY : Osceola
LOCATION : 28°17"14', 81°09"50'
TOTAL DEPTH : 730'
COMPLETED : 12/17/69
OWNER : Gulf American Corp.
DRILLER : Johnny Johnson
REMARKS : Descriptions from driller

DEPTH (FT.)	DESCRIPTION
0 - 60	Dark brown sand.
60 - 70	Light brown sand.
70 - 90	Green mud with sand.
90 - 110	Blue mud and sand.
110 - 120	Sand and shell mixed.
120 - 150	Sand with a little shell.
150 - 175	Green mud with shell.
175 - 180	Green mud.
180 - 190	Green mud, sand and shell.
190 - 200	Sand with green mud.
200 - 220	Green mud with sand.
220 - 230	Sand.
230 - 240	Sand with a little mud.
240 - 250	Green mud and sand.
250 - 260	Green, mud and little rock.
260 - 270	Shell and sand.
270 - 290	White gravel and some sand.
290 - 300	White lime.
300 - 320	White lime with some sand.
320 - 380	Lime rock.
380 - 394	Lime rock, hard.

OSF-22 (Continued)

DEPTH (FT.)	DESCRIPTION
394 - 400	Hard lime rock.
400 - 491	Hard brown lime.
400 - 520	Water bearing no cuttings.
520 - 525	Soft gray lime.
525 - 550	No cuttings.
550 - 600	Soft brown lime rock.
600 - 640	Soft light brown lime.
640 - 660	Soft brown lime.
660 - 680	Soft light brown lime.
680 - 730	Light brown soft lime.

WELL NUMBER	:	OSF-54
COUNTY	:	
LOCATION	:	T. 29S, R. 31E, Sec. 24
TOTAL DEPTH	:	869'
ELEVATION	:	
COMPLETED	:	5/4/82
OWNER	:	T & A Corporation
DRILLER	:	
REMARKS	:	Descriptions from driller

DEPTH (FT.)	DESCRIPTION
0 - 40	Sand, brown, soft.
40 - 60	Sand, clay, brown, soft.
60 - 170	Sand, clay, shell, green, soft.
170 - 180	Sand, green, soft.
180 - 190	Sand, white, soft.
190 - 200	Sand, clay, gravel, green, soft.
200 - 210	Sand, clay, rock, green, soft.
210 - 220	Sand, clay, rock, light green, soft.
220 - 230	Clay, limerock, white, medium.
230 - 240	Limerock, sand, white, medium.
240 - 245	Rock, limerock, white, hard.
245 - 270	Limerock, brown, soft.
270 - 280	Limerock, brown, medium.
280 - 300	Limerock, white, medium.
300 - 320	Limerock, white, hard.
320 - 330	Limerock, white, hard.
330 - 335	Limerock, white, gray, hard.
335 - 340	Limerock, white, hard.
340 - 360	Limerock, brown, hard.
360 - 390	Limerock, white, soft.
390 - 395	No cuttings, hard.

OSF-54 (continued)

DEPTH (FT.)	DESCRIPTION
395 - 400	Limerock, no cuttings, hard.
400 - 480	Limerock, white, hard.
480 - 520	Limerock, white, soft.
520 - 525	Limerock, white, medium.
525 - 530	Limerock, white, hard.

WELL NUMBER	:	OSF-55
COUNTY	:	
LOCATION	:	T. 27S, R. 32E, Sec. 36
TOTAL DEPTH	:	891'
ELEVATION	:	
COMPLETED	:	11/7/82
OWNER	:	Central Florida Grove Service
DRILLER	:	J. D. Twist
REMARKS	:	Descriptions from driller

DEPTH (FT.)	DESCRIPTION
0 - 20	Sand, brown, hard streaks.
20 - 30	Clay.
30 - 80	Fine, loose shell.
80 - 90	Shell.
90 - 130	Shell and clay.
130 - 140	Medium, hard rock and clay.
140 - 180	Shell and clay.
180 - 210	Hard clay, some shell.
210 - 360	Medium, hard, clay.
360 - 570	Medium, hard, limerock, white.
370 - 430	Soft, limerock, white.
430 - 440	Hard limerock, tan.
440 - 480	Hard limerock, soft streaks.
480 - 500	Loose, limerock.
500 - 560	White, limerock, some cement.
560 - 715	White, lime, some dolomite.
715 - 760	Dolomite, brown.
760 - 891	Soft, dark, lime with layers of dolomite.

WELL NUMBER : POF-13
COUNTY : Polk
LOCATION : 27°56"34', 81°21"18'
TOTAL DEPTH : 560'
REMARKS : Descriptions from driller

DEPTH (FT.)	DESCRIPTION
0 - 5	Surface sand.
5 - 10	Hard pan.
10 - 10	White sand.
20 - 30	White sand.
30 - 40	White sand.
40 - 50	Gray sand.
50 - 60	Gray sand.
60 - 70	Green clay.
70 - 90	Green clay.
90 - 110	Green clay.
110 - 130	Green clay.
130 - 150	Green clay.
150 - 170	Stiff bluish clay.
170 - 190	Stiff bluish clay.
190 - 220	Stiff bluish clay.
220 - 226	Hard "salt and pepper" rock.
226 - 230	Hard "salt and pepper" rock.
230 - 250	Hard white limerock.
250 - 270	Hard white limerock.
270 - 290	Hard white limerock.
290 - 310	Hard white limerock.
310 - 330	Hard white limerock.
330 - 350	Hard white limerock.

POF-13 (Continued)

DEPTH (FT.)	DESCRIPTION
350 - 370	Hard white limerock.
370 - 390	Hard white limerock.
390 - 410	Hard white limerock.
410 - 430	Hard white limerock.
430 - 450	Hard white limerock.
450 - 470	Hard white limerock.
470 - 490	Hard white limerock.
490 - 510	Hard white limerock.
410 - 530	Hard white limerock.
530 - 550	Hard yellowish limerock.
550 - 560	Hard yellowish limerock.

WELL NUMBER	:	W-519
COUNTY	:	Polk
LOCATION	:	T. 31S., R. 28E. sec. 33
TOTAL DEPTH	:	1060 ft.
ELEVATION	:	93 ft.
SAMPLES	:	101 samples from 40-1060 ft.
COMPLETED	:	
OWNER	:	L. Maxcey, Inc. and Florida Fruit Canners, Inc.
DRILLER	:	E. W. Dansby
REMARKS	:	Cuttings described by E. W. Bishop

DEPTH (FT.)	DESCRIPTION
40 - 60	Quartz sand, kaolinitic, white, fine to coarse - average medium, subrounded, clay stained.
60 - 70	As above.
70 - 100	Quartz sand, very slightly kaolinitic, white, fine to very coarse - average coarse, subrounded to subangular, frosted.
100 - 110	Quartz sand, kaolinitic, light yellowish-gray, fine to small pebbles, subrounded to subangular, frosted, clay stained, heavy minerals noticeable.
110 - 115	Quartz sand, white, fine to small pebbles - average, very coarse, subrounded, clay stained (kaolin).
115 - 120	As above but average size is much coarser.
120 - 130	As above.
130 - 135	Quartz sand, white, very kaolinitic, very micaceous, fine to large pebbles - average medium, clay stained.
135 - 150	Clay, grayish-yellow, very micaceous (muscovite), silty, sandy (fine to small pebbles - average medium).
150 - 160	Clay, olive drab, micaeous, silty, sandy (fine to small pebbles), with some very finely crystalline, hard, sandy, yellowish-gray dolomite. Very fossiliferous, mollusks fragments (many of which still retain their mother-of-pearl luster), numerous very small, very well preserved forams.
160 - 175	Clay, dark olive drab, micaceous, silty, sandy (fine, angular), very microfossiliferous - fauna composed almost entirely of Buliminella elegantissima and Elphidium cf. gunteri.
175 - 180	As above plus some black, rounded phosphorite pebbles and very coarse grains of quartz.
180 - 185	As above plus numerous mollusk fragments.

W-519 (Continued)

DEPTH (FT.)	DESCRIPTION
185 - 197	Clay, dark olive drab, micaceous, silty, sandy (fine to very coarse - average coarse, subrounded, frosted to clear), scattered forams and mollusk fragments.
197 - 206	As above plus scattered black, rounded phosphorite pebbles.
206 - 216	Doloclay, yellowish-gray, argillaceous, sandy (fine to scattered coarse grains), very phosphoritic (small, dark, round pebble); with some fairly hard, yellowish-gray, very finely crystalline, sandy, phosphatic dolomite. Faint molds and casts of mollusks.
216 - 223	As above.
223 - 280	As above.
230 - 235	As above but very sandy.
235 - 240	As above.
240 - 250	Clay, yellowish-gray, very calcitic (large microscopic euhedrals) silty, slightly sandy, very phosphoritic (large dark rounded pebbles). Sorites, scattered molds and casts of mollusks.
250 - 260	Limestone, dolomitic, yellowish-gray, sandy, very phosphoritic (large, dark rounded, particles), fairly hard, dense, faint molds and casts of mollusks.
260 - 270	As above.
270 - 280	As above plus very dense, very hard yellowish-gray limestone.
280 - 290	As above.
290 - 300	As above.
300 - 305	Clay, olive drab, very sandy, very phosphoritic.
305 - 310	As above.
310 - 325	As above.
325 - 335	As above plus much fine to medium quartz sand.
335 - 345	Limestone, yellowish-gray, granular, very slightly sandy, hard, low permeability. Miliolids very abundant, molds and casts of mollusks.

W-519 (Continued)

DEPTH (FT.)	DESCRIPTION
345 - 355	Limestone, yellowish-gray, granular, slightly calcitic, soft, high porosity. Eponides jacksonensis, Lepidocyclina ocalana.
355 - 365	As above.
365 - 375	As above.
375 - 385	As above.
385 - 395	As above.
395 - 400	Large foraminiferal coquina, yellowish-gray, soft, chalky, low permeability. Lepidocyclina and camerinids.
400 - 550	As above.
550 - 560	Limestone, yellowish-gray, harder than above, granular. Camerina moodybranchensis abundant.
560 - 570	As above.
570 - 580	As above.
580 - 590	Limestone, yellowish-gray, granular, very highly calcitic, hard, good vuggy porosity. Peronella dalli, molds and casts of mollusks.
590 - 600	As above.
600 - 610	As above plus algae fragments, ostracods and scattered Coskinolina floridana, Peronella abundant.
610 - 620	As above.
620 - 630	As above.
630 - 640	Limestone, yellowish-gray, granular in chalky matrix, calcitic, medium hard, low permeability. Algae fragments, Coskinolina Floridana Peronella fragments
640 - 650	As above.
650 - 660	As above but lighter in color.
660 - 673	As above.
673 - 685	Dolomite, light brown, very finely crystalline, hard.
685 - 695	Limestone, dark yellowish-gray, finely granular, Avon Park fauna.

W-519 (Continued)

DEPTH (FT.)	DESCRIPTION
695 - 725	As above.
725 - 735	Limestone, dolomitic, dark yellowish-gray, granular, hard, Avon Park fauna.
735 - 745	As above.
745 - 755	As above.
755 - 765	As above but lighter in color.
765 - 805	As above.
805 - 815	As above plus some light brown, finely rhombic, hard, dense to porous dolomite.
815 - 835	As above.
835 - 845	Limestone, dark yellowish-gray, granular to finely nodular, soft, dense. Avon Park fauna.
845 - 855	As above.
855 - 865	As above plus dolomite as in 805.
865 - 875	Dolomite, light brown, finely rhombic, hard, dense to porous. Non-fossiliferous.
875 - 885	Limestone, dark yellowish-gray, nodular, hard, dense. Avon Park fauna.
885 - 895	As above, very nodular, almost an oolite.
895 - 905	Limestone, dark yellowish-gray, granular, slightly chalky, fairly hard. Avon Park fauna.
905 - 915	As above but nodular in chalky matrix.
915 - 925	As above but very dark yellowish-gray. Much material caved from above.
925 - 935	As above.
935 - 945	As above plus some light brown, very finely crystalline, hard, dense dolomite and some dense, hard, porcelaneous, light gray limestone.
945 - 955	Limestone, dolomitic, very light brown, granular, calcitic, hard, good intergranular porosity. Poorly preserved Avon Park fauna.

W-519 (Continued)

DEPTH (FT.)	DESCRIPTION
955 - 965	Limestone, dark yellowish-gray, slightly carbonaceous, finely granular in chalky to densely crystalline matrix, soft; with some hard, dense, porcelaneous light brown to light gray dolomitic limestone.
965 - 975	Limestone, dark yellowish-gray, finely granular to chalky, slightly carbonaceous, soft, low permeability; with some light brown, very finely crystalline, dense dolomite.
975 - 985	Dolomite, light brown, coarsely (microscopically) rhombic, dense to porous, hard. Nonfossiliferous.
985 - 990	As above plus cavings from higher in hole.
990 - 1000	As above - mostly cavings, 40% fine to very coarse, rounded, frosted to clear quartz sand.
1000 - 1010	Dolomite, light brown, very finely rhombic to crypto-crystalline, dense, very hard, poor pinpoint porosity. Nonfossiliferous; plus some quartz sand as above.
1010 - 1040	As above.
1040 - 1050	As above but dark yellowish-gray in color and with some coarsely rhombic, very porous, dark yellowish-gray dolomite. Nonfossiliferous.
1050 - 1060	Dolomitic sandstone, very light yellowish-brown, finely rhombic, soft. Nonfossiliferous.
1060	As above.

WELL NUMBER	:	W-696
COUNTY	:	Osceola
LOCATION	:	T. 25S., R. 29E., sec. 30
TOTAL DEPTH	:	398'
ELEVATION	:	77.7'
SAMPLES	:	25' to 398'
COMPLETED	:	8/29/42
OWNER	:	U. S. Army - Kissimmee Airfield
DRILLER	:	Layne-Atlantic Co.
REMARKS	:	Cuttings described by E. R. Applin

DEPTH (FT.)	DESCRIPTION
25 - 30	Reddish-brown, highly sandy, shaly clay.
30 - 35	Fine, even grained, clear quartz argillaceous soft sandstone. Clay matrix, very small in quantity, stains sand a dull grayish-brown.
35 - 45	Sandy averaging coarse grained, lighter brown in color, a few phosphatic grains present.
45 - 80	Soft sandstone as above, a trace of phosphatic material. Sand stained dull brown.
80 - 95	Like the above. Phosphatic material slightly more abundant (has a reworked appearance).
95 - 115	Light gray, argillaceous and calcareous fine clear quartz sand. Many chalky shell fragments. A few echinoid fragments and a few small black phosphate nodules.
115 - 125	Greenish to brownish-gray sandy clay carrying some shell fragments and foraminifera. Species present are Rotalia beccarii and Elphidium incertum.
125 - 130	Sandy, slightly phosphatic clay with some shell fragments and a few calcitized specimens of Globigerina sp. and a few of Ostracods.
130 - 135	Light cream-colored chalky limestone, highly microfossiliferous carrying abundant species of Coskinolina floridana and many other species common to the Lituonella horizon of the Claiborne Eocene.
135 - 155	Similar to the above. Some species of Peronella dalli.
155 - 160	Similar to the above. Material somewhat dolomitized, less well preserved.
160 - 165	Like the above. Cyclammina? sp. also fairly common at this depth.

W-696 (Continued)

DEPTH (FT.)	DESCRIPTION
165 - 175	Material and fauna as above and about 50% fine to coarse clear quartz sand.
175 - 185	Somewhat dolomitic highly microfossiliferous deep cream-colored limestone. Coskinolina floridana and Spirolina coryensis the dominant foraminifera present. Textularia coryensis also common.
185 - 200	Similar to above, but more chalky, less highly fossiliferous.
200 - 220	Same as above. Chalk is slightly sandy.
220 - 250	Same as above and about 50% fine clear quartz sand.
250 - 260	Partly chalky and partly dolomitic limestone. Fauna in chalky limestone same as above.
260 - 280	Chalky, somewhat dolomitic limestone, micro-fauna comparatively sparse and badly water-worn. Coskinolina floridana present and some poor specimens of other forms characteristic of the Lituonella zone. Small irregular shaped limestone pebbles common in the chalk.
280 - 285	Chalky and slightly dolomitic limestone. Some irregular shaped limestone pebbles, very few fossils noted.
285 - 290	Material similar to the preceding, but micro-fauna abundant. A characteristic Lituonella zone, fauna present.
290 - 305	Same as above. Spirolina coryensis very abundant.
305 - 315	Chalky and dolomitic limestone, Fauna as above.
315 - 320	Same as above, but more highly dolomitic.
320 - 335	Chalky, highly micro-fissiliferous somewhat dolomitic limestone. Coskinolina and Lituonella floridana and Spirolina coryensis the dominant species.
335 - 340	Similar to the above. Limestone slightly gray spotted.
340 - 365	Dolomitic and chalky limestone. No indigenous fossils noted.
365 - 398	Hard, light brown dolomite, a few chalky areas.

WELL NUMBER	:	W-697
COUNTY	:	Osceola
LOCATION	:	T. 25S., R. 29E., sec. 19
TOTAL DEPTH	:	394'
ELEVATION	:	79.5'
SAMPLES	:	10' to 394'
COMPLETED	:	1/20/44
OWNER	:	Sun Oil Co.
DRILLER	:	
REMARKS	:	Cuttings described by E. R. Applin

DEPTH (FT.)	DESCRIPTION
10 - 50	Pinkish-brown stained, slightly argillaceous fine even grained clear quartz sand. An occasional small, black weathered phosphate nodules.
50 - 60	As above, more argillaceous.
60 - 70	Fine even grained, brown stained, slightly argillaceous sand. Some small possibly reworked phosphate nodules.
70 - 80	As above. Some moderately coarse sand grains present.
80 - 100	Fine (lightly tan stained), even grained clear quartz sand and a small amount of phosphate nodules.
100 - 110	Fine to moderately coarse clear quartz sand, about 1% small black phosphate modules. Many chalky shell fragments.
110 - 120	Gray sandy clay carrying some black phosphate nodules, and many chalky shell fragments.
120 - 130	Materials as above, also many specimens of Rotalia beccarii var. ornata, Elphidium incertum, and Buliminella elegantissima.
130 - 150	Lituonella member. Cuttings of cream-colored fossiliferous limestone and some loose sand caving from above. Limestone carries abundant fragments of an echinoid spine characteristic of the Lituonella member of the Claiborne. Spirolina (?) sp. Valvulammina sp. and other foraminifera typical of this horizon.
150 - 170	As above, Coskinolina floridana and Camerina sp. and several species of miliolids also common.
170 - 210	Chalky limestone as above. Coskinolina floridana, Dictyoconus cookei (conical var.) dominant. Many specimens of Peronella cf. dalli also present.

W-697 (Continued)

DEPTH (FT.)	DESCRIPTION
210 - 240	Limestone partly chalky and partly dolomitic. Fauna less abundant and less well preserved.
240 - 260	Cuttings of dense light brown dolomite and cream-colored chalky moderately hard limestone. A few foraminifera characteristic of the Lituonella zone present.
260 - 310	Chalky and dolomitic limestone. Fauna abundant, though generally poorly preserved. Coskinolina, Lituonella and Spirolina very common. Other foraminifera typical of the Lituonella horizon also present.
310 - 320	Dense light brown dolomite. A few foraminifera as above (probably caving).
320 - 330	Chalky and highly dolomitic limestone. Poor specimens of Coskinolina Lituonella and others fairly common in the limestone.
330 - 350	Dense, light brown dolomite.
360 - 360	Partly chalky, generally highly dolomitic limestone. A few foraminifera characteristic of the Lituonella horizon present in the limestone.
360 - 394	Hard, light tan colored dolomitic limestone.

WELL NUMBER : W-894
COUNTY : Highlands
LOCATION : Sebring
TOTAL DEPTH : 1278'
ELEVATION : 120'
SAMPLES :
COMPLETED :
OWNER :
DRILLER :
REMARKS : Descriptions from Bishop (1956)

DEPTH (FT.)	DESCRIPTION
0 - 130	No sample.
130 - 180	Quartz sand.
180 - 190	Sand, fine to granule-size, quartz, brown and black phosphorite.
190 - 305	Sand, sandy limestone, shell fragments, and brown phosphorite.
305 - 315	Limestone, phosphatic, coarsely sandy.
315 - 345	As above, and sand.
345 - 355	Limestone, impure, 50 percent black phosphorite.
355 - 375	As above, and sand.
375 - 395	Limestone, impure, black phosphorite.
395 - 415	Dolomite, "sugary", light-tan; "sugary" phosphatic limestone.
415 - 435	Limestone, sandy, phosphatic.
435 - 445	Sand and phosphorite.
445 - 515	Sand, phosphorite, and limestone.
515 - 585	Limestone, chalky, white to very light tan, *Rotalia mexicana*.
585 - ?	Limestone, cream-colored, very granular, *Lepidocyclina ocalana*, *Eponides jacksonensis*, *Gypsina globula*, *Operculinoides* sp.
? - 1040	Limestone, chalky-white to light-tan, mostly aggregate of calcite rhombs. *Discorinopsis gunteri*, *Coskinolina floridana*, at 1000 feet *Spirolina coryensis*.
1040 - 1200	As above, and 10 percent brown "sugary" dolomite with *Fabularia vaughani* at 1110 feet.

W-894 (Continued)

DEPTH (FT.)	DESCRIPTION
1200 - 1240	Dolomite, dark-tan, dense.
1240 - 1260	Dolomite, dark-tan, and nearly white limestone with *Dictyoconus cookei*.
1260 - 1278	No sample.

WELL NUMBER	:	W-965
COUNTY	:	Polk
LOCATION	:	T. 32S., R. 28E., sec. 9, SE¼ NW¼
TOTAL DEPTH	:	1023 ft.
ELEVATION	:	140.09 ft.
SAMPLES	:	159 samples from 0 to 1023 ft.
COMPLETED	:	November 1, 1945
OWNER	:	S. W. Keen
DRILLER	:	Layne-Atlantic Co.
REMARKS	:	Cuttings described by E. W. Bishop

DEPTH (FT.)	DESCRIPTION
0 - 5	Quartz sand, brown, slightly carbonaceous, fine to medium - average medium, curvilinear, pitted.
15 - 20	Quartz sand, bright yellowish orange, fine to medium - average medium, curvilinear, frosted.
30 - 35	As above.
50 - 55	As above. Heavy minerals noticeable.
60 - 65	Quartz sand, slightly clayey, bright reddish orange, fine to scattered coarse grains - average medium, curvilinear, frosted, clay stained.
70 - 75	As above but slightly coarser.
80 - 85	As above but lighter in color.
130 - 135	Quartz sand, very light yellowish gray, fine to coarse - average coarse, curvilinear, very highly frosted.
140 - 145	As above but average grain size medium.
145 - 150	As above but average grain size coarse.
150 - 155	Quartz sand, kaolinitic, very light yellowish gray, fine to very coarse - average medium, very highly frosted, polished, curvilinear.
155 - 160	As above.
160 - 165	Kaolin, white, very sandy (fine to small rounded, very highly polished pebbles), micaceous, very poorly sorted.
165 - 170	As above but light yellowish gray color.
170 - 175	As 160-165.
180 - 185	As above.

W-965 (Continued)

DEPTH (FT.)	DESCRIPTION
190 - 195	As above.
200 - 205	As above.
205 - 210	As above but with much very fine angular quartz sand.
210 - 215	Quartz sand, kaolinitic, montmorillonitic, micaceous, silty, brick red to yellowish gray, fine to scattered very coarse grains - average fine, angular to subangular, clear to clay stained.
230 - 235	Quartz sand and phosphorite. Quartz sand, white to clear, fine to granule size - average very coarse, curvilinear, polished. Phosphorite, yellowish gray to dark brown, rounded, polished pebbles; with some material as above.
235 - 240	Dolomite clay, grayish yellow, sandy (fine to small pebbles), phosphoritic (fine to large, rounded yellowish gray to dark brown pebbles); with some calcareous coral and mollusk fragments.
240 - 245	Montmorillonite, dark olive drab, very sandy (fine to pebble size), phosphoritic as above, calcareous; coral and mollusk fragments; with some light yellowish gray, very phosphoritic sandstone cemented with small calcite crystals.
245 - 250	As above.
250 - 255	As above.
255 - 260	Limestone, light gray, dolomitic, sandy, very phosphoritic (light brown to black grains), hard, moldic, good moldic porosity. Molds and casts of mollusks, coral.
265 - 270	Dolomite clay, dull yellowish gray, phosphoritic (light to dark brown grains), sandy, slightly montmorillonitic, very finely crystalline, moderately hard, low permeability. Molds and casts of mollusks.
270 - 275	As above but soft and very phosphoritic.
290 - 295	As above.
295 - 300	Dolomite, light gray to light yellowish gray, sandy, phosphoritic, crypto-crystalline, hard, dense. Scattered molds and casts of mollusks.
300 - 305	As above.

W-965 (Continued)

DEPTH (FT.)	DESCRIPTION
305 - 310	Limestone, yellowish-gray, sandy, phosphoritic (brown pebble) calcitic, crypto-crystalline, hard, dense. Molds and casts of mollusks, Sorites, Archaias, crab claws.
310 - 315	As above.
315 - 320	Limestone, yellowish gray, sandy, very phosphoritic (light brown pebble), calcitic, porcelaneous, dense, hard. Crab claws, molds and casts of mollusks.
320 - 325	Limestone, yellowish gray to light gray, very sandy, very phosphoritic, calcitic, crypto-crystalline, dense, hard, poor moldic porosity. Sorites, Archaias, molds and casts of mollusks.
325 - 330	As above plus Conus sp.
330 - 335	As above.
335 - 340	Dolomite, yellowish gray, very sandy, very phosphoritic, finely crystalline, hard, dense; with some material as above.
340 - 345	As above plus some gray to light yellowish gray, sandy phosphoritic limestone.
350 - 355	As above plus molds and casts of mollusks.
355 - 360	As above, fair moldic porosity.
360 - 365	As above.
365 - 370	As above.
370 - 375	Dolomite, gray to yellowish gray, very sandy, very phosphoritic, finely rhombic, hard, poor moldic porosity. Molds and casts of mollusks.
375 - 380	As above plus much free quartz and phosphoritic sand.
380 - 385	Montmorillonite, dark grayish green, very dolomitic (small rhombic crystals), very sandy, very phosphoritic, soft, low permeability. Sharks teeth; plus some grayish brown, sandy phosphoritic, finely rhombic, hard moldic dolomite.
385 - 390	As above plus much very dark gray, very finely crystalline, dense, rounded (river pebbles?) pieces of dolomite.
390 - 395	As above.

W-965 (Continued)

DEPTH (FT.)	DESCRIPTION
395 - 400	As above.
400 - 405	Limestone, yellowish gray, granular (mostly large forams) in powdery matrix, soft, low permeability. Lepidocyclina ocalana, Gypsina globula, Eponides jacksonensis, Spirolaea vernoni.
405 - 410	As above but hard to soft.
415 - 420	As above but not as fossiliferous.
420 - 425	As above.
425 - 430	As above.
430 - 435	Limestone, yellowish gray, very finely granular to powdery, very soft to hard, low permeability. Scattered Lepidocylina ocalana, Gypsina Globula, Eponides jacksonensis, echinoid spines, starfish ossicles, mollusk fragments.
450 - 455	As above.
455 - 460	As above.
460 - 465	As above.
465 - 470	As above plus a flood of camerinids, and some finely crystalline dark gray dolomite caved from the Hawthorn.
470 - 505	As above.
505 - 510	Foraminiferal coquina, bright yellowish gray, forams in soft limestone powder, soft, low permeability. Lepidocyclina ocalana very abundant, camerinids, scattered mollusk fragments.
510 - 630	As above.
630 - 645	As above plus some yellowish gray, soft, porous miliolid limestone.
645 - 650	Limestone, yellowish gray, granular in powdery to crystalline matrix, very calcitic, fairly hard, good vuggy porosity. Peronella dalli very abundant, molds and casts of mollusks. Plus much material caved from higher in hole.
650 - 670	As above.

W-965 (Continued)

DEPTH (FT.)	DESCRIPTION
670 - 675	Limestone, dark yellowish gray, granular in crystalline to powdery matrix, fairly hard, fair vuggy porosity. Algae fragments, Coskinolina floridana, small coiled gastropods, Peronella dalli.
675 - 715	As above.
715 - 720	Limestone, yellowish gray, leached miliolids in crypto-crystalline matrix, fairly soft, excellent cellular (leached miliolids) porosity. Miliolids, Coskinolina floridana: with 10% light brown, finely to coarsely rhombic, porous, soft dolomite.
720 - 725	As 670.
725 - 730	As 670.
730 - 740	Limestone, yellowish-gray, granular in powdery matrix, very calcitic, fairly soft, low permeability. Peronella dalli, Coskinolina floridana, algae fragments.
740 - 745	As above but not as calcitic.
745 - 750	As above but with very few Peronella fragments.
750 - 755	As above.
755 - 760	As above.
760 - 765	As above plus scattered small clusters of light brown rhombs of dolomite.
765 - 770	As above.
770 - 775	As above.
775 - 780	As above but somewhat harder.
780 - 785	As above plus much caved Hawthorn.
785 - 790	As above.
790 - 795	Limestone, yellowish gray, slightly carbonaceous, granular to powdery, slightly calcitic, soft, low permeability. Avon Park fauna.
795 - 800	As above plus scattered clusters of brown dolomite rhombs.
800 - 805	As above.

W-965 (Continued)

DEPTH (FT.)	DESCRIPTION
805 - 810	As above plus some dark yellowish gray, hard nodular limestone.
810 - 815	As above plus some hard, crypto-crystalline yellowish gray limestone.
815 - 820	As above, much nodular limestone.
820 - 825	Limestone, light to dark yellowish gray, nodular (large miliolids and other micro-fossils) in chalky matrix, slightly crystalline, fairly hard, low permeability. Avon Park fauna; plus clusters and scattered rhombs of dolomite.
825 - 830	As above plus some fairly hard, powdery, slightly carbonaceous limestone.
830 - 910	As above.
910 - 915	Limestone, yellowish gray, dolomitic (scattered rhombic crystals), miliolids (many of which are leached) in powdery matrix, soft, fair vessicular porosity. Avon Park fauna.
915 - 920	As above.
920 - 925	As above.
925 - 930	Limestone, yellowish gray, dolomitic as above, granular in powdery matrix, slightly calcitic, soft, low permeability. Avon Park fauna.
930 - 935	As above.
935 - 940	As above plus abundant small light brown dolomite rhombs.
940 - 960	As above.
960 - 965	Dolomite, very light brown, finely to coarsely rhombic, fairly hard, fair interstitial porosity. Non-fossiliferous; with much material as above.
965 - 1000	As above.
1000 - 1005	As above plus much of the material being dolomite rhombs in yellowish gray calcareous powder.
1005 - 1010	As above.

W-965 (Continued)

DEPTH (FT.)	DESCRIPTION
1010 - 1015	As above plus much yellowish gray, soft miliolid limestone.
1015 - 1020	As above.
1020 - 1023	A mixture of dolomite as in 960 - 965 and yellowish gray, soft powdery, dolomitic (rhombic crystals) limestone.

WELL NUMBER	:	W-1411
COUNTY	:	Osceola
LOCATION	:	T. 31S., R. 33E., sec. 12
TOTAL DEPTH	:	8798'
ELEVATION	:	72'
SAMPLES	:	0' - 4795'
COMPLETED	:	12/18/46
OWNER	:	Humble Oil and Ref. Co.
DRILLER	:	
REMARKS	:	Cuttings described by Chih Shan Chen

DEPTH (FT.)	DESCRIPTION
0 - 261	Miocene and Younger.
261 - 290	Sandy, 20% quartz and phosphate pellets, phosphatic, fossiliferous limestone.
290 - 340	Highly fossiliferous limestone, microcoquina, very light brown, very poorly cemented with large forams as Lepidocyclina, etc. abundant.
340 - 520	Highly fossiliferous limestone, biosparite, pseudo-oolite, very light brown with forams common; Coskinolina Lituonella, etc., present.
520 - 825	Highly fossiliferous (fragments and forams) limestone, biosparite fragmental to pseudo-oolite with forams rather common, light brown, microcrystalline, rather well cemented. Thin dolomite beds may be present.
825 - 870	Fossiliferous limestone, fragmental, light brown to brown, carbonaceous material and Dictyoconus Americanus, etc.
870 - 880	Dolomite, fine crystalline, rather dense, dark brown.
880 - 905	Fossiliferous limestone, forams as Dictyoconus?
905 - 925	Dolomite, very fine to fine crystalline, dark brown, rather dense.
925 - 1040	Dolomite, very fine crystalline.
1040 - 1080	Fossiliferous limestone?
1080 - 1090	Fine crystalline, dolomite.
1090 - 1105	Fossiliferous limestone.
1105 - 1310	Dolomite, very fine crystalline.
1310 - 1345	Fossiliferous limestone.

W-1411 (Continued)

DEPTH (FT.)	DESCRIPTION
1345 - 1355	Dolomite, fine crystalline.
1355 - 1390	Limestone.
1390 - 1440	Dolomite, very fine crystalline.
1440 - 1470	Limestone.
1470 - 1490	Dolomite, fine crystalline.
1490 - 1655	Dolomite, very fine to fine crystalline.
1655 - 1730	Limestone.
1730 - 1795	Dolomite, fine crystalline.
1795 - 1830	Fossiliferous limestone.
1830 - 1915	Dolomite, very fine crystalline.
1915 - 1940	Fossiliferous limestone.
1940 - 1980	Dolomite, fine crystalline.
1980 - 2030	Limestone, very light brown to chalky, rather dense, chalk-like.
2030 - 2065	Dolomite, very fine to fine crystalline.
2065 - 2130	Glauconitic, fossiliferous limestone, light brown, fragmental rather dense and pure.
2130 - 2200	Dolomitic (20%) fossiliferous limestone, fragmental, medium crystalline, brown-black dolomite crystals, forams as Coskinolina, etc.
2200 - 2220	Limestone, very light brown to chalky, fragmental, biosparite.
2220 - 2320	Dolomite, fine to medium crystalline, dense, very dark gray-brown with brown black carbonaceous? Dolomite fragments.
2320 - 2365	Limestone.
2365 - 2440	Dolomite, fine to medium crystalline, dense, dark gray-brown.
2440 - 2500	Dolomite, very fine crystalline, dense, gray-brown lithographic.

W-1411 (Continued)

DEPTH (FT.)	DESCRIPTION
2500 - 2520	Dolomite, very fine crystalline, dense, dark gray brown.
2520 - 2600	Dolomite, very fine crystalline, very dense and hard, very dark gray brown with chert like looking.
2600 - 2665	Calcitic (20%) dolomite, microcrystalline, gray-brown with a relic of fragmental and fossiliferous texture.
2665 - 2678	Gypsiferous (10%) dolomite, microcrystalline.
2678 - 2695	Anhydrite.
2695 - 2705	Dolomite, microcrystalline.
2705 - 2717	Anhydrite.
2717 - 2780	Dolomite, very fine crystalline to microcrystalline, very dark gray, slightly argillaceous.
2780 - 2820	Dolomitic (20%) limestone, rather dense, gray to gray-brown, slightly gypsiferous, Gypsum forams irregular. Streaks or bands in the limestone.
2820 - 2930	Dolomite, very fine to microcrystalline, dark gray to dark gray brown, slightly gypsiferous.
2930 - 3005	Gypsiferous (10%) limestone, gray brown, white gypsum fragments.
3005 - 3125	Gypsiferous (10%) dolomite, microcrystalline, gray brown
3125 - 3170	Anhydrite, very light blue, pure.
3170 - 3200	Gypsiferous (10%) fossiliferous dolomite, microcrystalline, light gray brown, pseudo oolitic, forams common.
3200 - 3220	Anhydrite.
3220 - 3310	Gypsiferous (10%) dolomite, microcrystalline, gray brown, light brown, gypsum forams irregular, bands and streaks.
3310 - 3320	Anhydrite.
3320 - 3340	Gypsiferous (10%) dolomite, microcrystalline.
3340 - 3360	Anhydrite.
3360 - 3375	Gypsiferous (10%) dolomite, microcrystalline.

W-1411 (Continued)

DEPTH (FT.)	DESCRIPTION
3375 - 3380	Anhydrite.
3380 - 3395	Gypsiferous (10%) dolomite, microcrystalline.
3395 - 3405	Anhydrite.
3405 - 3425	Gypsiferous (10%) dolomite, microcrystalline.
3425 - 3440	Anhydrite.
3440 - 3460	Gypsiferous (10%) dolomite, microcrystalline.
3460 - 3490	Anhydrite.
3490 - 3505	Gypsiferous (10%) dolomite, microcrystalline.
3505 - 3525	Anhydrite.
3525 - 3545	Gypsiferous (10%) as above.
3545 - 3560	Anhydrite.
3560 - 3590	Gypsiferous (10%) dolomite as above.
3590 - 3620	Anhydrite.
3620 - 3645	Gypsiferous (10%) dolomite as above.
3645 - 3680	Anhydrite.
3680 - 3735	Gypsiferous (10%) dolomite, as above.
3735 - 3755	Anhydrite.
3755 - 3870	Dolomite, microcrystalline, slightly gypsiferous.
3870 - 3890	Gypsiferous (30%) dolomite, microcrystalline.
3890 - 4000	Fossiliferous dolomite, microcrystalline, slightly gypsiferous, pseudo-oolitic.
4000 - 4010	Dolomite, very fine crystalline.
4010 - 4080	Calcitic (30%) dolomite, very fine crystalline.
4080 - 4300	Fossiliferous limestone, microcrystalline, very light brown, pure.
4300 - 4475	Chalky limestone, slightly dolomitic.

W-1411 (Continued)

DEPTH (FT.)	DESCRIPTION
4475 - 4520	Dolomite, fine crystalline, dark brown.
4520 - 4785	Chalk or chalky limestone.
4785 - 4795	Dolomite.
4795	Chalk or chalky limestone.

WELL NUMBER	:	W-1770
COUNTY	:	Osceola
LOCATION	:	T. 25S., R. 34E., sec. 27
TOTAL DEPTH	:	5856'
ELEVATION	:	44'
SAMPLES	:	none at 820 - 1150'
COMPLETED	:	8/21/48
OWNER	:	Hunt Oil Co.
REMARKS	:	Descriptions by Chiuh Shan Chen

DEPTH (FT.)	DESCRIPTION
0 - 300	Miocene and younger.
300 - 335	Sandy (20%) of quartz and phosphate pellets, phosphatic dolomite, very fine crystalline.
335 - 355	Sandy (30% of quartz and phosphate pellets), phosphatic limestone.
355 - 375	Sandy (30%) phosphatic dolomite as above.
375 - 395	Sandy (30%) phosphatic limestone as above.
395 - 420	Sandy (30%) phosphatic dolomite as above.
420 - 520	Highly fossiliferous limestone, very light brown, fragmental, and microcoquina, large forams abundant (Lepidocyclina, etc.).
520 - 575	Highly fossiliferous, limestone, biosparite, microcoquina to pseudo-oolite, forams abundant.
575 - 620	Highly fossiliferous limestone, fragmental, rather well-cemented, very light brown, forams as Coskinolina, Lituonella, etc.
620 - 695	Dolomite, fine crystalline, brown to dark brown, rather porous, sugary textured.
695 - 720	Fossiliferous limestone as above.
720 - 810	Dolomite, fine crystalline, brown to dark brown, rather porous, sugary textured.
810 - 960	Dolomite, fine crystalline, dark brown, rather dense.
960 - 1000	Calcitic (10%) dolomite, microcrystalline to very fine crystalline.
1000 - 1050	Dolomite, very fine crystalline, carbonaceous material?
1050 - 1150	Dolomite, very fine to fine crystalline.

W-1770 (Continued)

DEPTH (FT.)	DESCRIPTION
1150 - 1230	Dolomite, fine crystalline, rather dense, dark brown.
1230 - 1425	Dolomite, very fine to fine crystalline, rather dense, brown.
1415 - 1445	Dolomite, fine crystalline, dark brown, rather dense.
1445 - 1620	Dolomite, as above.
1620 - 1660	Fossiliferous limestone?
1660 - 1685	Calcitic (10%) dolomite.
1685 - 1720	Dolomite, fine crystalline, dense, dark brown.
1720 - 1740	Cherty (20%) limestone, light gray brown, rather dense, slightly phosphatic (?), dark brown to gray brown chert fragments rather common.
1740 - 1770	Dolomite, fine to medium crystalline, dark brown, rather dense.
1770 - 1780	Cherty (20%) limestone as above.
1780 - 1810	Dolomite, fine crystalline.
1810 - 1830	Glauconitic, fossiliferous limestone, fragmental, microcrystalline, light brown.
1830 - 1865	Dolomite, fine crystalline, rather dense, glauconitic.
1865 - 1965	Limestone, microcrystalline, fragmental, dense, very light brown, no well preserved fossils.
1925 - 1985	Dolomite, fine crystalline, rather dense, dark brown to dark gray brown.
1985 - 2055	Dolomite, as above, but very dark brown.
2055 - 2065	Dolomite, very fine crystalline, gray brown, dense, lithographic.
2065 - 2185	Dolomite, fine crystalline, very dark brown, dense.
2185 - 2265	Calcitic (10%) dolomite, microcrystalline, gray brown with a relic of fragmental texture.
2265 - 2400	Dolomite, very fine crystalline, brown to gray brown, forams as Borelis (?), etc., but very rare.

W-1770 (Continued)

DEPTH (FT.)	DESCRIPTION
2400 - 2420	Calcitic (10%) dolomite, microcrystalline, gray to gray brown, slightly argillaceous, rather dense.
2420 - 2470	Dolomite, very fine crystalline, rather dense and slightly gypsiferous, gray brown.
2470 - 2480	Gypsiferous (10%) dolomite, very fine crystalline.
2480 - 2540	Dolomite, very fine crystalline, slightly gypsiferous.
2540 - 2670	Dolomite, very fine to microcrystalline, light gray brown to brown, slightly calcitic and gypsiferous, rather dense.
2670 - 2695	Dolomitic (30%) anhydrite, microcrystalline, to very fine crystalline.
2695 - 2710	Gypsiferous (10%) dolomite, microcrystalline to very fine crystalline.
2710 - 2730	Dolomitic (30%) anhydrite.
2730 - 2745	Gypsiferous (10%) dolomite, microcrystalline.
2745 - 2760	Dolomitic (30%) anhydrite.
2760 - 2860	Dolomite, microcrystalline, light brown, slightly gypsiferous, with a relic of fragmental and fossiliferous texture.
2860 - 2875	Dolomitic (30%) anhydrite.
2875 - 2885	Gypsiferous (10%) dolomite, microcrystalline.
2885 - 2895	Dolomitic (30%) anhydrite.
2895 - 2910	Gypsiferous (10%) dolomite, microcrystalline.
2910 - 2920	Dolomitic (30%) anhydrite.
2920 - 2940	Gypsiferous (10%) dolomite, microcrystalline.
2940 - 2950	Dolomitic (30%) anhydrite.
2950 - 3020	Gypsiferous (30%) dolomite, microcrystalline (anhydrite forms irregular bands and streaks).
3020 - 3090	Gypsiferous (30%) dolomite, microcrystalline.

W-1770 (Continued)

DEPTH (FT.)	DESCRIPTION
3090 - 3100	Dolomitic (30%) anhydrite.
3100 - 3175	Gypsiferous (30%) dolomite, microcrystalline.
3175 - 3190	Anhydrite.
3190 - 3400	Gypsiferous (10%) dolomite, microcrystalline and fossiliferous, gray brown to brown, Borelis, etc.
3400 - 3660	Dolomite, very fine to fine crystalline, dark brown, rather pure, slightly gypsiferous.
3660 - 3750	Fossiliferous limestone, very light brown, pure, fragmental, and slightly gypsiferous.
3750 - 3765	Dolomite, very fine to fine crystalline.
3765 - 3800	Fossiliferous limestone.
3800 - 3930	Dolomite, fine crystalline.
3930	Chalky, fossiliferous limestone.

WELL NUMBER	:	W-1949
COUNTY	:	Polk
LOCATION	:	T. 30S., R. 28E., sec. 12, NW¼ NE¼ SE¼
TOTAL DEPTH	:	743 ft.
ELEVATION	:	225.9 ft.
SAMPLES	:	73 samples from 0-740 ft.
COMPLETED	:	June 30, 1949
OWNER	:	Dr. P. Phillips & Sons
DRILLER	:	Libby & Freeman
REMARKS	:	Cutting described by E. W. Bishop

DEPTH (FT.)	DESCRIPTION
0 - 10	Quartz sand, very slightly clayey, light reddish orange, fine to coarse, average medium, curvilinear, frosted, clay stained.
10 - 20	Clay, dark reddish orange to brick red, very sandy (fine to coarse, average medium, curvilinear, frosted to clear), fairly permeable.
20 - 30	As above.
30 - 40	As above.
40 - 50	Quartz sand, kaolinitic, very light yellowish gray, fine to coarse, average medium, curvilinear, frosted.
50 - 60	As above but slightly coarser.
60 - 200	As above
200 - 210	Dolomite (doloclay) dark yellowish gray, micaceous, clayey (mixture of montmorillonite and kaolin?), very finely rhombic, soft, very low permeability. No fossils noted.
210 - 220	Limestone, light to dark yellowish gray, very sandy, phosphoritic, light rounded grains in crystalline to porcelaneous matrix, hard, fair moldic porosity. Molds and casts of mollusks.
220 - 230	As above plus Sorites.
230 - 240	As above.
240 - 250	As above.
250 - 260	Limestone, very light gray to dark yellowish gray, sandy, slightly phosphoritic, light to dark colored grains granular in chalky matrix, very moldic, hard, excellent moldic porosity. Molds and casts of mollusks.
260 - 270	As above.

W-1949 (Continued)

DEPTH (FT.)	DESCRIPTION
270 - 380	As above.
280 - 290	Limestone, light to medium gray, large forams - mostly Lepidocylina ocalana in soft, very finely granular matrix, soft low permeability. Lepidocylina ocalana, Gypsina globula, Heterostegina ocalana, Pecten.
290 - 300	As above plus Camerinids.
300 - 360	As above.
360 - 370	Limestone, bright yellowish gray, forams in soft powder, soft, low permeability. Fossils as above but somewhat smaller in size and plus ostracods, bryozoans and scattered echinoid fragments.
370 - 420	As above.
420 - 480	As above but more fossiliferous plus Operculinoides moodybranchenis.
480 - 490	Limestone, dark yellowish gray, granular (micro fossils and calcite fragments) in powdery to crystalline matrix, soft to hard low intergranular porosity. Miliolids, eroded specimens of Coskinolina floridana and algae fragments. Echinoid fragments, sponge spicules, ostracods.
490 - 500	As above.
500 - 510	Limestone, dark yellowish gray, granular in powdery to crystalline matrix, calcitic, fairly hard, low intergranular porosity. Well preserved Coskinolina floridana, and algae fragments. Peronella dalli abundant, molds, and casts of mollusks.
510 - 520	As above but some fragments very dense and hard.
520 - 600	As above.
600 - 610	No sample.
610 - 620	As 500-510 ft.
620 - 630	Limestone, dark yellowish gray, granular in powdery matrix, calcitic, soft to slightly hard, low permeability. Avon Park fossils.
630 - 640	As above but not as calcitic.

W-1949 (Continued)

DEPTH (FT.)	DESCRIPTION
640 - 700	As above.
700 - 740	Dolomite, light brown, very finely crystalline to crypto-crystalline, massive, hard, dense, with porous zones. Non-fossiliferous.

WELL NUMBER : W-2397
COUNTY : Highlands
LOCATION : T. 33S., R. 29E., sec. 30, NE¼ SE¼
TOTAL DEPTH : 1439 ft.
ELEVATION : 105 ft.
SAMPLES :
COMPLETED :
OWNER :
DRILLER :
REMARKS : Descriptions from Bishop (1956)

DEPTH (FT.)	DESCRIPTION
0 - 177	No samples.
177 - 188	Sand, quartz, micaceous, white, fine to granule-size, rounded to angular, and some white clay.
188 - 199	Sand, quartz, micaceous, light-yellow to tan-gray, fine to small pebbles, with pebbles of phosphorite and white clay nodules.
199 - 222	As above, plus some blue-green clay and gastropods.
222 - 242	Sand, quartz, light-cream, fine to pebble-size with phosphorite pebbles up to 6 mm in diameter.
242 - 254	As above, plus some very sandy white limestone. Phosphorite makes up about 30 percent of this sample. Mollusk fragments
254 - 310	Clay, tan-gray, sandy, phosphatic, with some limestone as above.
310 - 321	Sand, quartz, gray, medium to coarse, with some dense crystalline phosphatic limestone. Shark's teeth and echinoid fragments.
321 - 360	Limestone, cream, dense, finely crystalline, with phosphorite and some very coarse quartz sand.
360 - 375	Limestone, clayey, dark-gray, dense, hard, with some limestone, as above, and phosphorite pebbles.
375 - 435	Limestone, quartz sand, phosphorite pebbles, and clay; limestone, white to dark-gray, dense, hard to soft, finely crystalline, sandy, phosphatic; quartz sand, clear to gray, fine to very coarse; phosphorite pebbles up to 5 mm in diameter; clay, dark-green. Echinoid spines, shark's teeth, mollusk fragments, ostracods and Foraminifera.

W-2397 (Continued)

DEPTH (FT.)	DESCRIPTION
435 - 450	Limestone, slightly sandy, cream, soft, porous, crystalline; calcite rhombs and some phosphorite. Echinoid spines, Foraminifera, Rotalia mexicana and others.
450 - 495	Limestone, slightly sandy, cream, soft, chalky, a few phosphorite pebbles and pieces of dark dense limestone. Numerous Foraminifera, Rotalia mexicana, Elphidium leonensis and others.
495 - 615	Limestone, large foraminiferal coquina, cream, soft, porous; with some material as above. Lepidocyclina ocalana, Operculinoides ocalanus, and others.
615 - 635	No samples.
635 - 665	Limestone, cream, hard, calcitic, Few large foraminifera.
665 - 720	Limestone, large foraminiferal coquina, cream, hard, porous, some soft chalky limestone.
720 - 735	Limestone, large foraminiferal coquina, light gray. Camerinidae numerous.
735 - 765	No samples.
765 - 825	Limestone, light-tan-gray, hard, crystalline, with some white chalky limestone. Gastropods, Foraminifera and echinoids; Coskinolina floridana, Peronella dalli.
825 - 840	Limestone, cream, hard, porous. Dictyoconus cookei.
840 - 975	As above, plus some white dense crystalline limestone. Fossiliferous.
975 - 1000	Limestone, cream to tan, hard, porous. Fossiliferous.
1000 - 1050	As above, plus Spirolina coryensis and numerous miliolids.
1050 - 1057	Dolomite, tan to light-brown, dense, waxy, crystalline, with some limestone, as above.
1057 - 1066	As above, plus some dense dark limestone.
1066 - 1085	As above, plus some soft white limestone.
1085 - 1100	As above, plus Dictyoconus americanus.

W-2397 (Continued)

DEPTH (FT.)	DESCRIPTION
1100 - 1155	Dolomite, light-brown, finely crystalline, waxy; with some hard white porous limestone. Fossiliferous.
1155 - 1212	Sand, dolomite, with some chalky, white porous limestone.
1205 - 1225	Limestone, chalky, hard, light-tan; coral forams, ostracods, starfish ossicles, *Lituonella floridana*.
1225 - 1235	Limestone, dense, hard, light-tan. Forams.
1235 - 1255	As above, plus some tan finely crystalline dolomite.
1255 - 1310	Limestone, hard, granular, light-tan. Forams, *Peronella*.
1310 - 1320	Limestone, hard, chalky, light-tan. Forams.
1320 - 1340	As above, but granular with some hard to soft white chalky limestone. Forams.
1340 - 1350	Limestone, hard, granular, tan. Forams mostly miliolids.
1350 - 1360	As above, plus some hard chalky porous limestone.
1360 - 1370	Limestone, very hard, slightly porous, cream. Mollusk molds and forams.
1370 - 1380	Limestone, hard, granular, tan, with some hard chalky white limestone. Forams.
1380 - 1390	Limestone, dolomitic, hard, granular to crystalline, dark-tan, in a tan slightly clayey chalky matrix. Forams.
1390 - 1439	No samples.

WELL NUMBER	:	W-2398
COUNTY	:	Highlands
LOCATION	:	T. 33S., R. 28E., sec. 14, SW¼ SW¼ SW¼
TOTAL DEPTH	:	1230 ft.
ELEVATION	:	160 ft.
SAMPLES	:	48 samples from 40 to 1220 ft.
COMPLETED	:	August 1950
OWNER	:	R. H. Lawhon
DRILLER	:	Curtis A. Dansby
REMARKS	:	USGS Well No. H-305

DEPTH (FT.)	DESCRIPTION
40 - 60	Sand, quartz; orange to cream; rounded to sub-rounded, medium to some very coarse; a few shell fragments; phosphate nodules and particles of white clay.
60 - 220	Sand, quartz; rounded to sub-rounded, medium to coarse; few phosphate nodules.
220 - 260	Sand, quartz; clayey; medium to some very coarse, rounded to sub-angular; some muscovite and phosphorite.
260 - 275	Phosphorite; clayey, calcareous; black phosphorite in light gray clay; numerous small calcite rhombs; clay non-plastic; pebbles of phosphorite up to 12 mm. in diameter.
275 - 345	Fullers-earth and phosphorite; light green to olive drab; calcareous; some sand.
345 - 350	Limestone; phosphatic; finely crystalline; white.
350 - 460	Limestone, phosphorite and sand; limestone finely crystalline to porcelaneous, dense; phosphorite brown to black. Mollusks, echinoid spines and foraminifera *Elphidium* sp. and others.
460 - 530	Limestone, hard, white, chalky, porous; with some dense, hard, gray limestone and sand; some material from above. Mollusks, echinoid fragments and numerous foraminifera - *Rotalia mexicana*.
530 - 600	Limestone, hard to some soft, chalky, cream, porous. Highly fossiliferous, *Lepidocyclina ocalana* and other forams common to the Ocala limestone.
640 - 660	Large foraminiferal coquina limestone; cream to tan-gray; harder than above. *Lepidocyclina ocalana*, *Heterostegina ocalana*.
660 - 680	Same.

W-2398 (Continued)

DEPTH (FT.)	DESCRIPTION
680 - 700	As above but with more Camerinidae.
700 - 730	Large foraminiferal coquina limestone; cream to tan gray; hard. Camerina moodysbranchensis.
730 - 760	Same.
760 - 780	As above plus some hard, dense gray limestone.
780 - 800	Limestone, hard, cream, highly calcitic, with many calcite rhombs and vugs. Echinoid fragments and worn forams. Lepidocyclina ocalana.
800 - 820	As above plus many well worn, small Gastropods and specimens of Coskinolina floridana.
820 - 840	As above plus Dictyoconus cookei.
840 - 880	Limestone, hard, light brown, highly calcitic, porous; fauna consists almost entirely of fairly well preserved echinoid spines and specimens of Coskinolina floridana and Dictyoconus cookei.
880 - 900	As above but with fewer echinoid fragments and plus some soft chalky limestone.
900 - 980	Limestone, hard, light brown, porous, with secondary calcite. Many small forams, Coskinolina floridana, Dictyoconus cookei, Spirolina coryensis.
980 - 1000	Limestone, hard, cream, porous, calcitic. Fauna as above.
1000 - 1020	As above plus some olive drab, calcareous, laminated clay or shale - cavings?
1020 - 1050	As 980.
1050 - 1075	Same.
1075 - 1100	Limestone, hard, cream, porous, calcitic; with fauna as above; plus some very finely crystalline, dense, hard, light brown limestone.
1100 - 1120	As above but with more light-brown dense limestone.
1120 - 1140	Limestone, hard, cream, porous, calcitic. Poorly preserved forams.
1140 - 1160	Limestone, dolomitic, hard, dark red-brown, crystalline; with some limestone as above.

W-2398 (Continued)

DEPTH (FT.)	DESCRIPTION
1160 - 1180	Limestone, fairly hard, white, porous, chalky; with some tan granular limestone Gastropods and echinoid fragments, no diagnostic forams noted.
1180 - 1200	Limestone, hard, brown, finely crystalline, dolomitic, dense, waxy; with material as above. Echinoid spines, few forams.
1200 - 1220	Limestone, hard, brown, granular, porous, dolomitic, waxy; with some hard, chalky, white limestone and numerous small, brown rhombic crystals. No diagnostic forams noted.

WELL NUMBER	:	W-2399
COUNTY	:	Highlands
LOCATION	:	T. 38S., R. 30E., sec. 17
TOTAL DEPTH	:	1550'
ELEVATION	:	182'
SAMPLES	:	
COMPLETED	:	
OWNER	:	
DRILLER	:	
REMARKS	:	Descriptions by Bishop (1956)

DEPTH (FT.)	DESCRIPTION
0 - 10	Sand, quartz, dark-gray-orange, medium to coarse, frosted.
10 - 70	Sand, quartz, cream to cream-orange, medium to coarse, frosted.
70 - 100	Sand, quartz, white to cream, medium to coarse, frosted.
100 - 140	Sand, quartz, white to light-gray, coarse, frosted.
140 - 200	Sand, quartz, cream to light-tan-gray, medium to very coarse, partly frosted, with some hard, white clay.
200 - 270	Sand, quartz, micaceous, cream to light-yellow, fine to very coarse, partly frosted, with some white to cream clay.
270 - 290	Clay, sandy, very micaceous, light-green, fissile, plastic.
290 - 300	No sample.
300 - 340	Sand, quartz, micaceous, gray, fine to medium, angular, clear, with some gray to gray-orange clay.
340 - 360	As above, plus some light-red-brown clay.
360 - 380	Sand, quartz, micaceous, gray-green, fine to coarse, angular to subrounded, clear to frosted, with some slightly calcareous olive-drab clay.
380 - 440	Clay, fuller's earth, slightly sandy, calcareous, micaceous, dark-green, with some white clay, dark crystalline calcite, dark chert, and small particles or organic material.
440 - 450	Limestone, slightly sandy, dense, finely crystalline, with some dark-gray dense limestone, chert, sand, clay as above, and phosphorite pebbles. Mollusk fragments and shark's teeth.

W-2399 (Continued)

DEPTH (FT.)	DESCRIPTION
450 - 470	Clay, sandy, calcareous, phosphatic, white to dark-green in lower part; some finely crystalline sandy dense white limestone. Mollusk fragments.
470 - 480	No sample.
480 - 490	Sand, quartz, clayey, tan-gray, fine to coarse, some phosphorite.
490 - 500	Clay, fuller's earth, sandy, phosphatic, light-tan-gray to gray.
500 - 520	Clay, fuller's earth, phosphatic, gray-green to dark-green; some finely crystalline dense white clay.
520 - 530	Limestone, cream, finely crystalline, dense, with phosphorite and sand. Mollusk fragments.
530 - 540	As above, plus some light-brown dense limestone.
540 - 550	Clay, white to gray, phosphatic.
550 - 570	Limestone, as at 520-530 feet plus clay as above.
570 - 580	Limestone, cream, finely crystalline, dense, with some dark dense limestone; some very sandy cream limestone; phosphorite, and clay as at 540-550 feet.
580 - 590	Clay, light-gray to gray, sandy, calcareous, phosphatic.
590 - 680	Clay, fuller's earth, gray-green to green, slightly sandy, phosphatic; some white clay. Lower 10 feet contains some tan dense limestone.
680 - 710	Limestone, cream, chalky to granular, soft, porous. Foraminifera numerous, Rotalia mexicana and others.
710 - 730	Limestone, cream, crystalline, porous, fossiliferous.
730 - 750	Limestone, cream, soft, chalky, porous, fossiliferous.
750 - 760	Limestone, cream, hard, crystalline, porous.
760 - 770	Limestone, cream, chalky, soft. Numerous large Foraminifera — Lepidocyclina ocalana and others.
770 - 830	Limestone, foraminiferal coquina, light-gray to tan-gray, soft, porous. Fauna as above.
830 - 920	As above, but Camerinidae more numerous.

W-2399 (Continued)

DEPTH (FT.)	DESCRIPTION
920 - 940	As above but harder. Foraminifera mostly Camerinidae.
940 - 990	As above, plus some soft chalky limestone.
990 - 1000	Limestone, tan-gray, soft, chalky, Foraminifera and mollusk fragments.
1000 - 1010	Limestone, foraminiferal coquina, tan-gray; some chalky limestone as above and some fairly hard granular limestone.
1010 - 1020	As above, but with more hard limestone.
1020 - 1030	As above, plus some gray-green to gray-brown chert.
1030 - 1050	Limestone, foraminiferal coquina, tan-gray, fairly hard; some soft, chalky limestone.
1050 - 1060	Limestone, foraminiferal coquina, tan-gray, chalky, soft, with some hard dense, crystalline limestone. Numerous echinoid spines.
1060 - 1070	Limestone, tan to light-lilac, hard, finely crystalline. Very few large Foraminifera, many Coskinolina floridana.
1070 - 1130	As above, plus some dark dense limestone and calcite rhombs.
1130 - 1140	Limestone, light-gray, soft, chalky, slightly porous, and limestone as at 1070-1130 feet.
1140 - 1150	Limestone, cream, granular, hard, slightly porous.
1150 - 1160	As above, plus many large Foraminifera and some crystalline calcite.
1160 - 1170	As above, plus some soft chalky limestone, and some hard, dense white limestone.
1170 - 1180	Limestone, cream to light-gray, hard, with much secondary calcite and hard, dense light-blue limestone.
1180 - 1190	No sample.
1190 - 1200	As at 1170-1180 feet.
1200 - 1220	As above, plus numerous Coskinolina floridana.
1220 - 1250	Limestone, cream to light-gray, hard, granular, with secondary calcite in a light-gray chalky matrix.

W-2399 (Continued)

DEPTH (FT.)	DESCRIPTION
1250 - 1290	Limestone, dolomitic, light-brown, hard, granular to crystalline, with some dense hard light-gray limestone and some dense brown waxy dolomite. Foraminifera numerous.
1290 - 1310	Limestone, tan, granular to crystalline, with some brown dolomite in a light-gray chalky matrix.
1310 - 1320	Limestone, tan, finely granular, with some white hard dense limestone and some blue dense limestone.
1320 - 1330	As above, plus some very hard porous white limestone and secondary calcite.
1330 - 1340	Limestone, tan, granular, hard, with some white hard porous limestone and brown waxy dolomite.
1340 - 1350	Dolomite, light-brown, finely crystalline, dense, waxy, with some dense white limestone.
1350 - 1370	As above, plus some soft light-gray limestone.
1370 - 1410	Limestone, tan, granular to crystalline hard, in a light-tan-gray soft slightly clayey chalky matrix.
1410 - 1520	Foraminiferal coquina, brown, hard, very porous. Driller reported small cavities in this interval.
1520 - 1530	No sample.
1530 - 1540	Limestone, light-pink, granular, hard to soft, porous. Some particles appear to be laminated.
1540 - 1550	As above, but with more soft limestone.

WELL NUMBER : W-2859
COUNTY : Highlands
LOCATION : T. 34S., R. 29E., sec. 18, SE¼ NW¼
TOTAL DEPTH : 1400'
ELEVATION : 150'
SAMPLES :
COMPLETED :
OWNER :
DRILLER :
REMARKS : Descriptions from Bishop (1956)

DEPTH (FT.)	DESCRIPTION
0 - 5	Sand, quartz, gray-brown, medium to coarse (averages coarse), carbonaceous.
5 - 35	Sand, quartz, cream-orange, slightly clayey, medium to coarse (averages coarse), rounded to subrounded, frosted.
35 - 50	Sand, quartz, light-orange, slightly clayey, medium to coarse (averages coarse), rounded to subrounded, frosted, with a few small particles of hard, white clay.
50 - 60	As above, but sand is light gray in color and clear.
60 - 75	As above, but medium sand.
75 - 100	Sand, quartz, white, coarse, subrounded to subangular, clear to frosted.
100 - 105	As above, but cream in color and many heavy minerals.
105 - 130	Sand, quartz, light-orange, medium to coarse (averages medium), subrounded to subangular, clear to frosted; heavy minerals numerous.
130 - 145	Sand, quartz, white, coarse to very coarse (averages coarse), rounded to subangular, clear to frosted.
145 - 150	Sand, quartz, micaceous, slightly clayey, silty, cream, fine to coarse (averages fine), rounded to subangular, clear to frosted.
150 - 160	As above, plus green clay and quartz granules 4 mm across.
160 - 180	Sand, quartz, micaceous, white, clean, fine to very coarse (averages coarse), rounded to subrounded, clear to frosted, with phosphorite pebbles to 6 mm in length; phosphorite, white to dark brown; some crystalline calcite. Numerous mollusk fragments, barnacles and shark's teeth.

W-2859 (Continued)

DEPTH (FT.)	DESCRIPTION
180 - 220	As above, plus quartz pebbles 4 to 7 mm long.
220 - 230	As above, plus silt.
230 - 275	As at 160-180'.
275 - 280	Clay, gray-green to light-gray, pure, sticky, with small to large phosphorite pebbles.
280 - 285	As above, tan-gray, sandy.
285 - 290	As above, plus tan-gray hard dense phosphatic limestone.
290 - 365	Clay, gray to olive-drab, slightly sandy, with limestone as above, dark-colored phosphorite pebbles and shark's teeth.
365 - 375	Limestone, white, sandy, phosphatic, dense, with some white crystalline limestone, blue chert and phosphorite pebbles.
375 - 400	Clay, white to gray-green, slightly sandy, with material as above.
400 - 405	Sand, quartz, slightly clayey, gray-green, medium to coarse (averages coarse), clear with small grains of phosphorite and smoky quartz.
405 - 425	Clay, dark-gray-green to olive-drab, slightly sandy, with phosphorite pebbles and some chert.
425 - 435	Sand, quartz, tan-gray, fine to very coarse (averages medium), clear, with fragments of cream dense sandy limestone, phosphorite pebbles, chert and dark-green clay.
435 - 445	Limestone, tan-gray, granular, hard to soft, slightly phosphatic, slightly sandy, with fragments of chert, dark green clay, and phosphorite pebbles. Mollusk fragments, shark's teeth.
445 - 480	Limestone, tan-gray, granular, hard, slightly phosphatic, slightly sandy; mollusk fragments.
480 - 490	Limestone, tan-gray, chalky, hard to soft, porous, slightly sandy. Small gastropods and pelecypods.

W-2859 (Continued)

DEPTH (FT.)	DESCRIPTION
490 - 495	Sand, quartz, light gray, medium to very coarse (averages medium), clear, rounded to subangular, with some dense porcelaneous limestone, tan-gray phosphatic limestone, chert and phosphorite pebbles. Mollusk fragments and fish teeth.
495 - 510	As above, plus soft white chalky limestone.
510 - 605	Limestone, tan-gray, granular to chalky, hard to soft, dense. Large and small Foraminifera. Lepidocyclina ocalana and others.
605 - 650	Limestone, foraminiferal coquina, cream, soft, chalky, porous. Lepidocyclina ocalana and others, mollusk fragments.
650 - 680	As above, but not as chalky.
690 - 735	As at 605-650 feet, but containing numerous Camerinidae.
690 - 735	As above, but fewer forams.
735 - 785	Limestone, tan-gray, moderately hard, granular, calcitic. Few large Foraminifera, numerous worn Peronella type echinoids, mollusk fragments.
785 - 795	Lithology as above. Coskinolina floridana. Peronella numerous but not as worn as above.
795 - 805	As above, but Coskinolina floridana very numerous.
805 - 810	As above, plus dark brown crystalline dolomite.
810 - 845	Limestone, cream, hard, calcitic, granular, slightly chalky. Fauna as above.
845 - 850	As above, plus some soft, chalky limestone.
850 - 870	As above, plus some finely crystalline dolomite. No echinoids noted.
870 - 880	Limestone, tan, hard, calcitic, granular, with some light-brown hard porous finely crystalline dolomite. Coskinolina floridana.
880 - 905	As above, plus soft chalky tan limestone.
905 - 975	Limestone, tan, hard, slightly calcitic, granular. Coskinolina floridana numerous; mollusk fragments.

W-2859 (Continued)

DEPTH (FT.)	DESCRIPTION
975 - 980	As above, plus cream hard dense limestone.
980 - 985	As at 905-975 feet, plus some gray hard dense limestone; Peronella type echinoids.
985 - 1020	Limestone, cream to tan, slightly chalky, hard, granular. Few Foraminifera, mollusk fragments.
1020 - 1025	Dolomite, light brown, crystalline, hard, with limestone as above.
1025 - 1035	As above, plus some soft gray siltstone.
1035 - 1040	Limestone, tan, hard, granular, with some light-brown finely crystalline dolomite. Foraminifera, mostly Miliolidae.
1040 - 1050	Limestone, cream, hard, granular, slightly chalky, with dense white limestone. Foraminifera, mollusk fragments.
1050 - 1055	Limestone, tan-gray, soft, chalky.
1055 - 1065	As at 1040-1050'.
1065 - 1070	Limestone, tan, hard, granular, with some light-brown finely crystalline dolomite.
1070 - 1075	As at 1040-1050'.
1075 - 1100	Limestone, tan to cream, hard, finely crystalline to granular, slightly chalky, with some crystalline brown dolomite and dark-colored chert. Foraminifera, Dictyoconus americanus.
1100 - 1115	Limestone, dolomitic, tan, hard, granular, with light to dark chert. Foraminifera, Dictyoconus americanus, mollusk fragments.
1115 - 1130	Limestone, cream, granular, medium-hard, slightly chalky, with light to dark chert.
1130 - 1150	Limestone, tan, hard, granular to dense and chert. Echinoid and mollusk fragments.
1150 - 1155	As at 1130-1140'.
1155 - 1165	Limestone, tan, granular, hard to soft, with brown crystalline dolomite. Mollusk fragments.

W-2859 (Continued)

DEPTH (FT.)	DESCRIPTION
1165 - 1170	Dolomite, dark-brown, crystalline, hard, with limestone as above and chert.
1170 - 1200	Limestone, cream to gray, hard, granular, with some dolomite as above and chert. Foraminifera.
1200 - 1205	Limestone, cream, chalky, soft, with dark crystalline dolomite.
1205 - 1210	Dolomite, light-brown, crystalline, hard, with limestone as above, Foraminifera.
1210 - 1230	Limestone, cream, hard, granular to dense, with dolomite as above. Mollusk fragments.
1230 - 1235	Dolomite, dark-brown, hard, granular, with some chert.
1235 - 1240	As above, plus some white mollusk fragments.
1240 - 1260	Dolomite as above, plus cream granular limestone. Forams and mollusk fragments.
1260 - 1295	Limestone, tan, hard, granular, with light-brown dolomite. Mollusk fragments and Foraminifera.
1295 - 1300	Dolomite, brown, granular, very porous, hard, with light-colored chert and limestone as above.
1300 - 1305	Limestone, tan, hard, granular, with a small amount of dolomite and chert as above.
1305 - 1320	Dolomite, dark-tan, granular, hard.
1320 - 1330	Limestone as at 1300-1305'.
1330 - 1355	Dolomite, brown, hard, granular, very porous and white limestone containing mollusk fragments and forams.
1355 - 1375	As above, but tan to brown and containing chert.
1375 - 1385	Dolomite, brown, granular, hard.
1385 - 1395	Dolomite, tan, hard, granular, with some white dense limestone and chert. Mollusk fragments, Foraminifera.
1395 - 1400	Dolomite, brown to tan, hard, granular, porous, with cream limestone and chert. Foraminifera.

WELL NUMBER	:	W-4750
COUNTY	:	Glades
LOCATION	:	T. 41S., R. 30E., sec. 1
TOTAL DEPTH	:	10,993'
ELEVATION	:	54'
SAMPLES	:	125' to 1773'
COMPLETED	:	July 19, 1958
OWNER	:	Amerada Petroleum Corp.
DRILLER	:	
REMARKS	:	Cuttings described by H. S. Puri

DEPTH (FT.)	DESCRIPTION
0 - 125	No samples.
125 - 140	Gray, calcareous sandstone; sand grain medium to fine, subangular, some frosted; with sandy clay.
140 - 170	Olive green sandy clay; some sand (probably cavings).
170 - 200	Green and steel-gray sandy clay.
200 - 230	Same as above with calcareous sandstone; some fragments of shells and corals; some phosphorite present.
230 - 260	Same.
260 - 290	Olive green clay, blocky and calcareous sandstone; some phosphorite.
290 - 320	Light gray siltstone with specks of phosphate; occasional molds or mollusks.
320 - 350	As above with some small pebbles of phosphate.
350 - 380	As above with some greenish clay with pea-size pebbles of phosphate.
380 - 410	Light gray to cream colored siltstone and clay with few specks of phosphorite.
410 - 440	As above with some casts of mollusks.
440 - 470	Siltstone as above and phosphatic sandstone; concentration of phosphate; molds of mollusks.
470 - 500	As above.
500 - 530	As above.
530 - 560	Cream colored siltstone with specks of phosphorite and sand.

W-4750 (Continued)

DEPTH (FT.)	DESCRIPTION
560 - 590	As above and fragmental limestone, fossiliferous, microcoquinoid, phosphatic.
590 - 620	As above.
620 - 650	Cream colored siltstone with pebble phosphate; molds and casts of mollusks.
650 - 680	As above and gray phosphatic sandstone.
680 - 710	As above.
710 - 740	As above.
740 - 770	As above and olive green plastic clay.
770 - 810	Cream colored fragmental limestone, microcoquinoid in places, fossiliferous.
810 - 830	As above.
840	(Spot sample) cream colored fragmental limestone, microcoquinoid, calcitic in places.
830 - 860	As above with Lepidocyclina supra.
860 - 889	Tan dolomite and limestone as above.
889 - 900	Tan sugary dolomite.
900 - 910	Tan dolomite and cream colored fragmental limestone. Lepidocyclina sp.
910 - 920	White chalky limestone; Lepidocyclina ocalana vars.
920 - 930	As above.
930 - 940	White chalky, microcoquid limestone; Lepidocyclina ocalana vars; Operculinoides ocalana.
940 - 950	As above with typical Crystal River fauna.
950 - 960	As above.
960 - 970	White chalky limestone with Operculinoides moodybranchensis.
970 - 980	White chalky limestone with Operculinoides moodybranchensis, Operculinoides wilcoxi, Heterostegina ocalana.

W-4750 (Continued)

DEPTH (FT.)	DESCRIPTION
980 - 990	Tan, sugary, dolomite.
990 - 1000	As above with molds of ? Lituonella.
1000 - 1010	As above with fragments of Lepidocyclina sp. in dolomite matrix.
1010 - 1020	As above.
1020 - 1030	As above.
1030 - 1040	As above with molds of Foraminifera.
1040 - 1050	As above with Lepidocyclina sp.
1050 - 1060	As above.
1060 - 1070	As above with Operculinoides moodybranchensis in dolomite matrix.
1070 - 1080	Honey colored dolomite with inherent granularity.
1080 - 1090	As above.
1090 - 1100	As above with Operculinoides moodybranchensis.
1100 - 1110	Cream colored, unfossiliferous dolomite.
1110 - 1120	No sample.
1120 - 1130	Cream colored dolomite, unfossiliferous.
1130 - 1140	Dolomite as above and white fragmental limestone.
1140 - 1150	As 1130 - 1140'.
1150 - 1160	Bluish-white fragmental limestone with Lituonella floridana, and typical Avon Park fauna.
1160 - 1170	Bluish-white limestone mostly a coquina of Foraminifera.
1170 - 1320	As above.
1320 - 1350	Tan, fragmental limestone mostly a coquina of Foraminifera.
1350 - 1380	As above with Dictyoconus americana; Lituonella floridana and milliolids.
1380 - 1410	1410-1440', 1440-1470', 1470-1500', as above.

W-4750 (Continued)

DEPTH (FT.)	DESCRIPTION
1500 - 1530	As above and brecciated limestone and calcite in clay matrix.
1530 - 1560	Cream colored limestone with *Dictyoconus americanus*.
1560 - 1710	As above.
1710 - 1740	Brownish gray, dense, dolomite and abundant crystals of calcite. *Dictyoconus americana* common
1710 - 1740	Brownish gray, dense, dolomite and abundant crystals of calcite. *Dictyoconus americana* common.
1773	(Soft sample), as above.

WELL NUMBER	:	W-2163
COUNTY	:	Osceola
LOCATION	:	T. 26S., R. 29E., sec. 25
TOTAL DEPTH	:	2000'
ELEVATION	:	68'
SAMPLES	:	46 samples from 0-1995'
COMPLETED	:	August 1917
OWNER	:	Kissimmee Oil Company
REMARKS	:	Descriptions from Gunter and Sellards

DEPTH (FT.)	DESCRIPTION
0 - 50	Fine dark gray surficial sands.
50 - 60	Very fine brownish sand with small amount of clayey material.
60 - 150	Greenish sandy marl with fragments of shells and some minute mica flakes. Echinoderm spine noted.
150 - 215	Granular, light colored limestone. Microscopic fossils.
215 - 260	Very finely powdered, cream colored, limestone. Microscopic fossils.
260 - 455	Hard, close grained, light colored limestone. Fossils.
455 - 485	Finely powdered, brownish limestone.
485 - 515	Finely powdered, brownish limestone, microscopic fossils.
515 - 600	Very hard, close grained, brownish limestone. A few microscopic fossils noted.
600 - 680	Hard, cream colored, limestone. No fossils observed.
680 - 715	Hard, brownish limestone.
715 - 870	Hard, finely powdered, brownish limestone.
870 - 975	Partly crystallized, brownish limestone.
975 - 1160	Light brownish limestone.
1160 - 1210	Hard, partly crystallized, brownish limestone.
1210 - 1300	Finely powdered crystallized brown limestone.
1300 - 1380	Very finely powdered brownish limestone with inclusions of flint fragments.
1380 - 1410	Very finely powdered white limestone.
1410 - 1420	Granular, light colored limestone, fossil noted.

W-2163 (Continued)

DEPTH (FT.)	DESCRIPTION
1420 - 1430	Granular, light colored limestone.
1430 - 1490	Hard, brownish limestone.
1490 - 1535	Finely powdered brownish limestone.
1535 - 1555	Very finely powdered brownish limestone.
1555 - 1574	Very hard, brownish limestone.
1574 - 1635	Finely powdered, chalky white limestone.
1635 - 1645	Light colored limestone with bluish fragments.
1645 - 1710	Light colored limestone with bluish fragments
1710 - 1763	Light colored, fossiliferous limestone.
1763 - 1777	Very finely powdered brownish limestone.
1777 - 1781	Light colored limestone.
1781 - 1785	Light brownish limestone.
1785 - 1790	Light colored, finely powdered, partly crystallized limestone.
1790 - 1800	Light brown, finely powdered limestone. Fossils noted.
1800 - 1810	Light brown, finely powdered limestone. Fossils noted.
1810 - 1817	Light colored, finely broken, partly crystallized limestone.
1817 - 1828	Light colored, finely broken, limestone. Fossils noted.
1828 - 1835	Light brown, powdered, partly crystallized limestone. Fossils noted.
1835 - 1845	Light brown, finely powdered, partly crystallized limestone. Fossils noted.
1845 - 1854	Hard, brownish, partly crystallized, powdered limestone. Fossils noted.
1854 - 1865	Brown, crystallized limestone, finely broken.
1865 - 1872	Light brown, very finely powdered, limestone. Fossils noted.

W-2163 (Continued)

DEPTH (FT.)	DESCRIPTION
1872 - 1945	Light brownish limestone. Some of the limestone discolored by iron or rust spots. No fossils observed.
1945 - 1990	Light colored limestone powdered fine by the drill. Salt water horizon. No fossils observed. The bailer brought up small amount of rock. Drillings disappeared in the water.
1990 - 1993	Light colored limestone. No fossils observed.
1993 - 1995	Gray colored, hard, partly crystallized, limestone. Breaks in coarse fragments. No fossils observed.
1995 - 2000	Limestone, some of it light colored and some brownish cast. Broken up medium fine by the drill. In addition to the limestone, this sample contains a limited amount of siliceous sand.

WELL NUMBER : W-4896
COUNTY : Okeechobee
LOCATION : T. 38S., R. 34E., sec. 2, SE¼ NE¼
TOTAL DEPTH : 1313'
ELEVATION : 17'
SAMPLES : 32 samples from 70 - 1265'
OWNER : Parker Bros., Inc.
REMARKS : Descriptions from Ed Lane

DEPTH (FT.)	DESCRIPTIONS
0 - 70	Shell hash, unconsolidated, broken mollusk shells, wave-worn. Barnacles, several well preserved Amphistegina lessonii forams, echinoids, shark tooth, a few tiny unidentifiable forams. Loose, coarse-size black phosphorite, about 1%. Heavy minerals, less than 1%, total, VF-F size: epidote (yellow-green, glassy), staurolite, ilmenite (magnetic), rutile, mica. Quartz sand constitutes about half of the sample, angular, VF-C.
70 - 85	Similar to above, but contained more clay and silt. Did not note any Amphistegina lessonii; none of the yellow-green mineral.
85 - 100	Sand, most of which is colorless, glassy quartz, angular, fine to coarse size with 50% being in the range of coarse to very coarse. About 15% of the sample is black, rounded phosphorite, with a size distribution as the quartz sand. About 2%, VF, heavy minerals, some mica. About 20% is very worn, small, shell-hash: echinoids, barnacles, mollusks, a well-preserved Amphistegina chipolensis, shark tooth. A few fragments of white, very sandy limestone.
100 - 145	Sand, lite gray, poorly consolidated with some silt and clay. About 90% of sample is in the range of VF-F size, with a few coarse sand grains, possibly from above. Heavy minerals (with some mica) and phosphorite, VF-F size, about 15%. Only fossils noted were several tiny (0.5 - 1.0 MM long) teeth (or claws). They do not look like fish-teeth, but more like a tiny land vertebrate's.
145 - 165	Clay, medium gray-green, dense, slightly calcareous, non-expanding. Contains less than 1% silt-size heavy minerals.
165 - 180	Similar to above, but color is dark gray-green, with fewer heavy minerals.
180 - 225	Sand, similar to sample at 145', but color is medium gray-green due to silt and clay. Cemented in places to a calcareous sandstone. One foram noted; may be

W-4896 (Continued)

DEPTH (FT.)	DESCRIPTION
	Astrononion glabrella; several fragments of mollusk shells.
225 - 285	Sand, silty, clayey, similar to above but color is medium gray-green; average grain-size is larger. Few fragments of mollusk shells, many small echinoid spines. About 15%, VF-size, heavy minerals; about 1%, coarse-size phosphate.
285 - 320	Similar to above.
320 - 345	Limestone, white to very light gray, sand about 5%, heavy minerals about 5%, phosphorite about 5%. Forams, shell fragments, mollusks, barnacles, bryozoans, echinoids.
345 - 355	Limestone, medium gray, microcrystalline, sucrosic, partly dolomitized; some fragments are clean, others contain up to 5% heavys and 5% phosphorite. About 10% of sample is loose phosphorite mostly medium to very coarse size and some granules up to 5 MM. Forams, echinoids, mollusks.
355 - 390	Similar to above with white to light gray calcareous clay. Shark tooth noted.
390 - 395	Limestone, white to light gray, micrite, vuggy and moldic porosity. 15-25% in places. Included phosphorite, VF to 5 MM granules, 10-30% of some fragments. Mollusks, echinoids, bryozoa, crab claw.
395 - 420	Some fragments of limestone and clay, as above, but 50% of the sample is loose phosphorite. VF to 5 MM granules. Many phosphatized internal casts of pelecypods and pelecypods and gastropods; echinoids, shark teeth, and several tiny teeth as described for sample at 145'.
420 - 425	Phosphorite gravel, 90% of sample is phosphorite from medium size to 7 MM granules, mostly larger than 2 MM. Few fragments of white limestone, as above. Few mollusks shell fragments, barnacles, echinoids, shark teeth common, many phosphatized internal casts, as above.
425 - 470	Similar to above, but about 75% of sample in VF-F size phosphorite, a few larger granules.
470 - 500	Limestone, white, shell hash. Quartz sand, C-VC, rounded, frosted. About 1% phosphorite. Echinoids, bryozoa, mollusks.

W-4896 (Continued)

DEPTH (FT.)	DESCRIPTION
500 - 530	Similar to above, but limestone contains up to 5% phosphorite in places.
530 - 560	Limestone, tan calcarenite, porous, granular, moderately recrystallized. Very fossiliferous: mollusks, Lepidocyclina, Gypsina globula, Operculinoides.
560 - 650	Foram hash, very light tan: Leps, Operculinoides; echinoids, bryozoa.
650 - 690	As above, plus Nummulities. Some forams contain black flecks that may be pyritization.
690 - 750	Similar to above, but darker tan. Moderate to high recrystallization, many clear calcite crystal-aggregates.
750 - 830	Limestone, very light tan, chalky, granular, porous. Coskinolina, Lituonella, Dictyoconus cookei abundant.
830 - 890	Similar to above. Ostracods.
890 - 950	As above.
950 - 980	As above, limestone is light gray-tan, less porous, with much brown, micro-crystalline dolomite.
980 - 1015	As above, but no dolomite.
1015 - 1100	As above.
1100 - 1170	Similar to above. Sample contains fragments of light gray, dense, partially dolomitized limestone.
1170 - 1210	Similar to above. Sample contained two specimens of large, flat cones (Dictyoconus americanus?); may have entered Lake City Formation in this interval.
1210 - 1265	Limestone, light tan, granular, porous, very fossiliferous. Abundant large cones (Dictyoconus americanus).

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W- 623

POLK CO. T30S R28E SEC 28SE N W
TOTAL DEPTH- 968 FT. ELEV.- 161 FT. 85 SAMPLES- 0- 968 FT.
COMPLETED- 41.11.18 DEPTH WORKED 958 FT.

WELL NAME-
FLORIDA HIGHLAND LIGHT AND WATER CO./ LAYNE-ATLANTIC CO.
REMARKS-
SAMPLES DESCRIBED BY CHRISTOPHER WAYNE
RECODED BY JON E.SHAW, SFWMD, MARCH 16, 1982

HYDROGEOLOGIC UNITS

0.0- 180.0 SHALLOW AQUIFER SYSTEM
180.0- 250.0 HAWTHORN CONFINING BEDS
250.0- 958.0 FLORIDAN AQUIFER SYSTEM

STRATIGRAPHIC FORMATIONS -

0.0- 190.0 UNDIFFERENTIATED SAND, CLAY AND SHELLS
190.0- 280.0 HAWTHORN FORMATION
280.0- 520.0 OCALA GROUP
520.0- 958.0 AVON PARK LIMESTONE

LITHOLOGIC LOG
W- 623 . POLK CO. T30S, R28E, SEC 28SE

0.0- 20.0 SAND, VERY LIGHT ORANGE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, ANGULAR, SUB-ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 01% PHOSPHATIC SAND, NO FOSSIL,

20.0- 40.0 SAND, VERY LIGHT ORANGE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 01% PHOSPHATIC SAND, CHALKY, NO FOSSIL,

40.0- 60.0 SAND, VERY LIGHT ORANGE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO VERY COARSE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 01% PHOSPHATIC SAND, 01% HEAVY MINERALS, NO FOSSIL,

60.0- 80.0 SAND, WHITE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO VERY COARSE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 01% PHOSPHATIC SAND, FROSTED, NO FOSSIL,

80.0- 100.0 SAND, WHITE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO VERY COARSE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 01% PHOSPHATIC SAND, CHALKY, NO FOSSIL,

LITHOLOGIC LOG
W- 623 . POLK CO. T30S, R28E, SEC 28SE

100.0- 120.0 SAND, WHITE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO GRANULE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 01% PHOSPHATIC SAND, CHALKY, NO FOSSIL,

120.0- 135.0 AS ABOVE,

135.0- 140.0 SAND, WHITE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO GRANULE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 01% PHOSPHATIC SAND, 01% HEAVY MINERALS, CHALKY, NO FOSSIL,

140.0- 155.0 SAND, WHITE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO GRANULE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 01% PHOSPHATIC SAND, CHALKY, NO FOSSIL,

155.0- 160.0 SAND, WHITE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO GRANULE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 01% PHOSPHATIC SAND, 01% HEAVY MINERALS, CHALKY, NO FOSSIL,

160.0- 165.0 SAND, YELLOWISH GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO GRANULE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 01% PHOSPHATIC SAND, 01% HEAVY MINERALS, 01% MICA, CHALKY, NO FOSSIL,

165.0- 170.0 AS ABOVE,

170.0- 180.0 SAND, LIGHT GRAYISH GREEN, 32% POROSITY, INTERGRANULAR, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO VERY COARSE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 20% CLAY, 01% PHOSPHATIC SAND, 01% MICA, 01% HEAVY MINERALS, CHALKY, NO FOSSIL,

180.0- 190.0 CLAY, OLIVE GRAY, 28% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, 25% QUARTZ SAND, 01% PHOSPHATIC SAND, 05% LIMESTONE, 01% HEAVY MINERALS, CHALKY, MOLLUSKS,

190.0- 200.0 DOLOMITE, YELLOWISH GRAY TO MODERATE LIGHT GRAY, 22% POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 10% PHOSPHATIC GRAVEL, 03% PHOSPHATIC SAND, 02% QUARTZ SAND, 01% HEAVY MINERALS, BRYOZOA,

200.0- 220.0 LIMESTONE, LIGHT GRAY, 18% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 04% PHOSPHATIC GRAVEL, 02% PHOSPHATIC SAND, 05% QUARTZ SAND, 20% DOLOMITE, MOLLUSKS, BRYOZOA,

LITHOLOGIC LOG
W- 623 . POLK CO. T30S, R28E, SEC 28SE

220.0- 230.0 DOLOMITE, GRAYISH BROWN TO VERY LIGHT GRAY, 21% POROSITY, INTERGRANULAR, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO MICROCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 05% LIMESTONE, 05% QUARTZ SAND, 01% PHOSPHATIC GRAVEL, 01% HEAVY MINERALS, NO FOSSIL,

230.0- 240.0 NO SAMPLE,

240.0- 250.0 DOLOMITE, GRAYISH BROWN TO VERY LIGHT GRAY, 21% POROSITY, INTERGRANULAR, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO MICROCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 15% QUARTZ SAND, 03% LIMESTONE, 03% PHOSPHATIC SAND, 05% PHOSPHATIC GRAVEL, MOLLUSKS,

250.0- 260.0 LIMESTONE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 18% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 04% PHOSPHATIC GRAVEL, 04% PHOSPHATIC SAND, 04% QUARTZ SAND, 20% DOLOMITE, CHALKY, MOLLUSKS, BRYOZOA,

260.0- 270.0 LIMESTONE, VERY LIGHT ORANGE, 20% POROSITY, INTERGRANULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 15% SPAR, 05% DOLOMITE, 02% QUARTZ SAND, 02% PHOSPHATIC GRAVEL, CHALKY, MOLLUSKS,

270.0- 280.0 AS ABOVE,

280.0- 290.0 LIMESTONE, VERY LIGHT ORANGE, 20% POROSITY, INTERGRANULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 10% SPAR, 05% DOLOMITE, 02% QUARTZ SAND, MOLLUSKS, BENTHONIC FORAMINIFERA,

290.0- 300.0 CALCARENITE, VERY LIGHT ORANGE, 23% POROSITY, INTERGRANULAR, MOLDIC, POOR INDURATION, CALCILUTITE MATRIX, 01% QUARTZ SAND, 01% PHOSPHATIC SAND, 03% DOLOMITE, CHALKY, BENTHONIC FORAMINIFERA, BRYOZOA, ECHINOID, MOLLUSKS,

WITH LEPIDOCYCLINA OCALANA

300.0- 320.0 AS ABOVE,

WITH OPERCULINOIDES FLORIDENSIS

320.0- 330.0 CALCARENITE,

POOR SAMPLE - CONTAMINATED

LITHOLOGIC LOG
W- 623 . POLK CO. T30S, R28E, SEC 28SE

330.0- 340.0 CALCARENITE, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, 01% QUARTZ SAND, 01% DOLOMITE, CHALKY, BENTHONIC FORAMINIFERA, ECHINOID, MOLLUSKS, BRYOZOA,

WITH NUMMULITES VANDERSTOKI

340.0- 350.0 AS ABOVE,

350.0- 360.0 CALCARENITE, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, UNCONSOLIDATED, 05% DOLOMITE, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA, ECHINOID, MOLLUSKS, BRYOZOA,

360.0- 320.0 CALCARENITE, 25% POROSITY, INTERGRANULAR, MOLDIC, UNCONSOLIDATED, 01% QUARTZ SAND, CHALKY, BENTHONIC FORAMINIFERA, ECHINOID, MOLLUSKS, BRYOZOA,

320.0- 390.0 AS ABOVE,

WITH O. MOODYBRANCHENSIS AND HETERSTEGINA OCALANA

390.0- 400.0 CALCARENITE, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, UNCONSOLIDATED, 01% DOLOMITE, 01% QUARTZ SAND,

400.0- 430.0 AS ABOVE,

430.0- 440.0 NO SAMPLE,

440.0- 460.0 AS ABOVE,

460.0- 470.0 CALCARENITE, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, UNCONSOLIDATED, 10% SPAR, 10% CALCILUTITE, 03% DOLOMITE, 01% PHOSPHATIC SAND, CHALKY, BENTHONIC FORAMINIFERA, ECHINOID, MOLLUSKS,

470.0- 480.0 AS ABOVE,

WITH DISORINOPIS GUNTERI (POSSIBLE CAVING FROM LOWER OCALA)

480.0- 490.0 AS ABOVE,

490.0- 500.0 CALCARENITE, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, UNCONSOLIDATED, 15% SPAR, 02% DOLOMITE, CHALKY, BENTHONIC FORAMINIFERA, ECHINOID, MOLLUSKS, BRYOZOA,

500.0- 530.0 AS ABOVE,

WITH DICTYCONUS COOKEI

530.0- 540.0 NO SAMPLE,

540.0- 550.0 AS ABOVE,

WITH DISCORBIS BULLA (REWORKED FROM LOWER OCALA)
WITH SPIROLINA CORYENSIS

550.0- 580.0 AS ABOVE,

WITH LITUONELLA FLORIDANA

580.0- 590.0 NO SAMPLE,

590.0- 610.0 AS ABOVE,

610.0- 660.0 NO SAMPLE,

660.0- 670.0 AS ABOVE,

WITH VALVULINA CUSHMANI

670.0- 685.0 AS ABOVE,

685.0- 691.0 DOLOMITE, VERY LIGHT ORANGE, 22% POROSITY, INTERGRANULAR, PIN POINT VUGS, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 25% CALCITE, 05% SPAR, 01% PHOSPHATIC GRAVEL, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA, MOLLUSKS,

691.0- 700.0 LIMESTONE, VERY LIGHT ORANGE, 20% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: INTRACLASTS, CRYSTALS, CALCILUTITE, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 02% DOLOMITE, 05% SPAR, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA, ECHINOID, MOLLUSKS, BRYOZOA,

700.0- 710.0 NO SAMPLE,

710.0- 720.0 AS ABOVE,

720.0- 725.0 LIMESTONE, VERY LIGHT ORANGE, 20% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: INTRACLASTS, CRYSTALS, CALCILUTITE, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 08% DOLOMITE, 05% SPAR, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA, MOLLUSKS,

725.0- 734.0 DOLOMITE, GRAYISH ORANGE TO VERY LIGHT GRAY, 22% POROSITY, INTERGRANULAR, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 25% CALCITE, 06% SPAR, 01% PHOSPHATIC GRAVEL, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA, MOLLUSKS,

LITHOLOGIC LOG
W- 623 . POLK CO. T30S, R28E, SEC 28SE

734.0- 740.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH BROWN, 22% POROSITY, INTERGRANULAR, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 15% CALCITE, 05% SPAR, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA, MOLLUSKS,

740.0- 750.0 NO SAMPLE,

750.0- 760.0 LIMESTONE, VERY LIGHT ORANGE, 20% POROSITY, INTERGRANULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 20% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 03% DOLOMITE, 02% SPAR, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA, MOLLUSKS,

760.0- 770.0 NO SAMPLE,

770.0- 790.0 AS ABOVE,

790.0- 800.0 LIMESTONE, VERY LIGHT ORANGE, 20% POROSITY, INTERGRANULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 20% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 05% DOLOMITE, 03% SPAR, 01% QUARTZ SAND, 01% PHOSPHATIC GRAVEL, BENTHONIC FORAMINIFERA, ECHINOID, MOLLUSKS,

800.0- 810.0 DOLOMITE, MODERATE LIGHT GRAY TO VERY LIGHT ORANGE, 22% POROSITY, INTERGRANULAR, VUGULAR, PIN POINT VUGS, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: CRYPTOCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 30% CALCITE, 01% QUARTZ SAND, MOLLUSKS, BENTHONIC FORAMINIFERA,

810.0- 820.0 NO SAMPLE,

820.0- 830.0 LIMESTONE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 20% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: INTRACLASTS, CALCILUTITE, CRYSTALS, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 05% DOLOMITE, 03% SPAR, 01% QUARTZ SAND, 01% PHOSPHATIC SAND, BENTHONIC FORAMINIFERA, MOLLUSKS,

830.0- 840.0 AS ABOVE,

840.0- 850.0 LIMESTONE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 20% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: INTRACLASTS, CALCILUTITE, CRYSTALS, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 05% DOLOMITE, 03% SPAR, 01% QUARTZ SAND, 01% PHOSPHATIC SAND, CHALKY, BENTHONIC FORAMINIFERA, MOLLUSKS, BRYOZOA,

LITHOLOGIC LOG
W- 623 . POLK CO. T30S, R28E, SEC 28SE

850.0- 857.0 DOLOMITE, MODERATE LIGHT GRAY TO VERY LIGHT ORANGE, 22% POROSITY, INTERGRANULAR, VUGULAR, PIN POINT VUGS, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: CRYPTOCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 30% CALCITE, 01% QUARTZ SAND, MOLLUSKS, BENTHONIC FORAMINIFERA,

WITH COARSE PYRITE CRYSTALS

857.0- 860.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH BROWN, 22% POROSITY, INTERGRANULAR, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 20% CALCITE, 05% SPAR, 01% QUARTZ SAND, 01% PHOSPHATIC SAND, BENTHONIC FORAMINIFERA, ECHINOID,

860.0- 865.0 AS ABOVE,

865.0- 875.0 LIMESTONE, VERY LIGHT ORANGE, 24% POROSITY, INTERGRANULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, CALCILUTITE, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, 10% DOLOMITE, 01% PYRITE, 01% PHOSPHATIC SAND, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA,

875.0- 880.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH BROWN, 22% POROSITY, INTERGRANULAR, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 20% CALCITE, 05% SPAR, 01% QUARTZ SAND, 01% PHOSPHATIC SAND, BENTHONIC FORAMINIFERA, ECHINOID,

880.0- 895.0 AS ABOVE,

895.0- 900.0 DOLOMITE, GRAYISH BROWN, 22% POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 05% CALCITE, /1% QUARTZ SAND, BENTHONIC FORAMINIFERA, ECHINOID,

900.0- 910.0 DOLOMITE, GRAYISH BROWN, 22% POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 05% CALCITE, 01% QUARTZ SAND, /1% PHOSPHATIC SAND, BENTHONIC FORAMINIFERA,

910.0- 920.0 DOLOMITE, GRAYISH BROWN, 22% POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 02% CALCITE, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA,

920.0- 930.0 AS ABOVE,

LITHOLOGIC LOG
W- 623 . POLK CO. T30S, R28E, SEC 28SE

930.0- 940.0 DOLOMITE, GRAYISH BROWN, 22% POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 03% CALCITE, 02% QUARTZ SAND, 01% PHOSPHATIC SAND, 01% PYRITE, BENTHONIC FORAMINIFERA, MOLLUSKS,

940.0- 953.0 AS ABOVE,

953.0- 958.0 DOLOMITE, VERY LIGHT ORANGE, 22% POROSITY, INTERGRANULAR, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, NO FOSSIL,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W- 1464
HIGHLANDS CO. T36S R29E SEC 02AA N W
TOTAL DEPTH- 1455 FT. ELEV.- 114 FT. 129 SAMPLES- 20- 1455 FT.
COMPLETED- 47.03. DEPTH WORKED 1455 FT.

WELL NAMF-
L. MAXCY, INC., DRILLED BY GEORGE E. BRAINERD
REMARKS-
WORKED AND CODED BY F. SAN JUAN, JR. 9-26 TO 10-6
RECODED BY JON E. SHAW, SFWMD, MARCH 16, 1982

HYDROGEOLOGIC UNITS

0.0-	368.0	SHALLOW AQUIFER SYSTEM
368.0-	500.0	HAWTHORN CONFINING BEDS
500.0-	1455.0	FLORIDAN AQUIFER SYSTEM

STRATIGRAPHIC FORMATIONS -

0.0-	340.0	UNDIFFERENTIATED SAND, CLAY AND SHELLS
340.0-	400.0	TAMIAMI FORMATION
400.0-	541.0	HAWTHORN FORMATION
541.0-	610.0	SUWANNEE LIMESTONE
610.0-	900.0	OCALA GROUP
610.0-	665.0	CRYSTAL RIVER FORMATION
665.0-	840.0	WILLISTON FORMATION
840.0-	900.0	INGLIS FORMATION
900.0-	1150.0	AVON PARK LIMESTONE
1150.0-	1375.0	LAKE CITY LIMESTONE
1375.0-	1455.0	OLDSMAR LIMESTONE

LITHOLOGIC LOG
W- 1464 . HIGHLANDS CO. T36S, R29E, SEC 02AA

0.0- 20.0 NO SAMPLE,

20.0- 70.0 SAND, LIGHT BROWN TO DARK YELLOWISH ORANGE, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: MEDIUM, RANGE: COARSE TO FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, IRON STAIN, HEAVY MINERALS, CLAY, FROSTED, NO FOSSIL,

70.0- 100.0 NO SAMPLE,

100.0- 135.0 SAND, WHITE, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: MEDIUM, RANGE: COARSE TO FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, HEAVY MINERALS, NO FOSSIL,

LITHOLOGIC LOG
W- 1464 . HIGHLANDS CO. T36S, R29E, SEC 02AA

135.0- 140.0 SAND, WHITE, 10% POROSITY, FRACTURE, VUGULAR, GRAIN SIZE: MEDIUM, RANGE: COARSE TO FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, POOR INDURATION, CALCILUTITE MATRIX, 35% LIMESTONE, PHOSPHATIC SAND, FOSSIL FRAGMENTS, MOLLUSKS,

140.0- 165.0 AS ABOVE,

165.0- 185.0 SAND, WHITE TO VERY LIGHT ORANGE, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: MEDIUM, RANGE: COARSE TO FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, IRON STAIN, PHOSPHATIC SAND, NO FOSSIL,

185.0- 200.0 AS ABOVE,

200.0- 210.0 SAND, WHITE TO VERY LIGHT GRAY, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: MEDIUM, RANGE: COARSE TO VERY FINE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, 05% LIMESTONE, PHOSPHATIC SAND, LIMONITE, CLAY, FOSSIL FRAGMENTS, MOLLUSKS,

210.0- 215.0 SAND, LIGHT BROWNISH GRAY TO LIGHT GRAYISH BROWN, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: MEDIUM, RANGE: COARSE TO FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, 10% CLAY, LIMESTONE, LIMONITE, NO FOSSIL,

215.0- 240.0 SAND, WHITE TO VERY LIGHT GRAY, 30% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: COARSE TO FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, CALCILUTITE MATRIX, 10% LIMESTONE, PHOSPHATIC SAND, FOSSIL FRAGMENTS, MOLLUSKS,

240.0- 252.0 LIMESTONE, VERY LIGHT GRAY TO VERY LIGHT ORANGE, 08% POROSITY, FRACTURE, VUGULAR, 35% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: GRANULE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, 35% QUARTZ SAND, PHOSPHATIC SAND, FOSSIL FRAGMENTS, MOLLUSKS,

252.0- 270.0 NO SAMPLE,

270.0- 275.0 SAND, VERY LIGHT GRAY TO VERY LIGHT ORANGE, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: FINE, RANGE: MEDIUM TO VERY FINE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 02% PHOSPHATIC SAND, CLAY, NO FOSSIL,

275.0- 295.0 NO SAMPLE,

295.0- 325.0 SAND, VERY LIGHT GRAY TO VERY LIGHT ORANGE, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: FINE, RANGE: MEDIUM TO VERY FINE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 03% PHOSPHATIC SAND, CALCILUTITE, CLAY, NO FOSSIL,

LITHOLOGIC LOG
W- 1464 . HIGHLANDS CO. T36S, R29E, SEC 02AA

325.0- 335.0 SAND, VERY LIGHT GRAY TO WHITE, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: MEDIUM, RANGE: COARSE TO FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, 03% PHOSPHATIC SAND, CALCILUTITE, CLAY, NO FOSSIL,

335.0- 340.0 SAND, VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: COARSE, RANGE: VERY COARSE TO FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, 05% PHOSPHATIC SAND, 05% DOLOMITE, NO FOSSIL,

340.0- 345.0 SAND, VERY LIGHT ORANGE TO LIGHT GRAYISH BROWN, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: COARSE, RANGE: VERY COARSE TO FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, CALCILUTITE MATRIX, 15% LIMESTONE, 15% PHOSPHATIC SAND, IRON STAIN, CHERT, FOSSIL FRAGMENTS, MOLLUSKS,

345.0- 350.0 NO SAMPLE,

350.0- 368.0 SAND, LIGHT GRAY TO MODERATE GRAY, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: COARSE, RANGE: VERY COARSE TO FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, CALCILUTITE MATRIX, 20% LIMESTONE, 12% CLAY, 15% PHOSPHATIC SAND, NO FOSSIL,

368.0- 375.0 LIMESTONE, VERY LIGHT GRAY TO DARK GRAY, 03% POROSITY, FRACTURE, VUGULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: GRANULE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, 20% PHOSPHATIC SAND, FOSSIL FRAGMENTS, MOLLUSKS,

375.0- 400.0 NO SAMPLE,

400.0- 405.0 LIMESTONE, MODERATE LIGHT GRAY TO MODERATE DARK GRAY, 03% POROSITY, FRACTURE, VUGULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: GRANULE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, 15% PHOSPHATIC SAND, FOSSIL FRAGMENTS, MOLLUSKS,

405.0- 410.0 LIMESTONE, VERY LIGHT GRAY TO MODERATE DARK GRAY, 05% POROSITY, VUGULAR, FRACTURE, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, SKELETAL, 40% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, 15% PHOSPHATIC SAND, 20% DOLOMITE, SUCROSIC, FOSSIL FRAGMENTS, MOLLUSKS, SHARK TEETH, ECHINOID,

LITHOLOGIC LOG
W- 1464 . HIGHLANDS CO. T36S, R29E, SEC 02AA

410.0- 420.0 LIMESTONE, VERY LIGHT GRAY TO MODERATE DARK GRAY, 05% POROSITY, VUGULAR, FRACTURE, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, SKELETAL, 40% ALLOCHEMICAL CONSTITUENTS, MODERATE INDURATION, CALCILUTITE MATRIX, 15% PHOSPHATIC SAND, 05% DOLOMITE, QUARTZ SAND, SUCROSIC, FOSSIL FRAGMENTS, MOLLUSKS,

420.0- 430.0 AS ABOVE,

430.0- 440.0 LIMESTONE, WHITE, 05% POROSITY, VUGULAR, FRACTURE, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 30% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: GRANULE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, 10% QUARTZ SAND, 02% PHOSPHATIC SAND, 05% DOLOMITE, SUCROSIC, FOSSIL FRAGMENTS, MOLLUSKS, ECHINOID,

440.0- 451.0 LIMESTONE, VERY LIGHT GRAY TO MODERATE GRAY, 05% POROSITY, VUGULAR, FRACTURE, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, OOLITE CAST, CRYSTALS, 30% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: GRANULE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, 10% QUARTZ SAND, 02% PHOSPHATIC SAND, 05% DOLOMITE, SUCROSIC, FOSSIL FRAGMENTS, MOLLUSKS, ECHINOID, SHARK TEETH,

451.0- 460.0 LIMESTONE, LIGHT GRAY TO MODERATE DARK GRAY, 05% POROSITY, VUGULAR, FRACTURE, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 30% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: GRANULE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, 05% PHOSPHATIC SAND, QUARTZ SAND, FOSSIL FRAGMENTS, SHARK TEETH,

460.0- 465.0 NO SAMPLE,

465.0- 480.0 LIMESTONE, LIGHT GRAY TO MODERATE GRAY, 05% POROSITY, VUGULAR, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL, 45% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: GRANULE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 07% QUARTZ SAND, 05% CLAY, PHOSPHATIC SAND, REEFAL, VARIEGATED, FOSSIL FRAGMENTS, MOLLUSKS, CORAL, FOSSIL MOLDS,

480.0- 485.0 SAND, LIGHT GRAY TO MODERATE LIGHT GRAY, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: FINE, RANGE: COARSE TO VERY FINE, ROUNDED, ANGULAR, MEDIUM SPHERICITY, MODERATE INDURATION, CALCILUTITE MATRIX, 30% LIMESTONE, 10% DOLOMITE, 05% PHOSPHATIC SAND, 05% CLAY, POOR SAMPLE, FOSSIL FRAGMENTS, SHARK TEETH,

485.0- 490.0 AS ABOVE,

LITHOLOGIC LOG
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490.0- 495.0 LIMESTONE, LIGHT GRAY TO MODERATE LIGHT GRAY, 04% POROSITY, GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: GRANULE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, QUARTZ SAND, 25% CLAY, 07% PHOSPHATIC SAND, FOSSIL FRAGMENTS,

DARK GRAY PHOSPHATIC LIMESTONE

495.0- 500.0 CLAY, MODERATE LIGHT GRAY TO MODERATE GRAY, POROSITY, NONE OBSERVED, POOR INDURATION, CLAY MATRIX, LIMESTONE, PYRITE, QUARTZ SAND, SHARK TEETH,

500.0- 505.0 SAND, GRAYISH BROWN TO DARK BROWN, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 15% PHOSPHATIC SAND, NO FOSSIL,

505.0- 510.0 NO SAMPLE,

510.0- 515.0 AS ABOVE,

515.0- 541.0 SAND, GRAYISH BROWN TO DARK BROWN, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 05% PHOSPHATIC SAND, NO FOSSIL,

541.0- 545.0 LIMESTONE, WHITE, 08% POROSITY, INTERGRANULAR, GRAIN TYPE: CRYSTALS, OOLITE CAST, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, FOSSIL FRAGMENTS, MOLLUSKS, SHARK TEFTH,

545.0- 550.0 AS ABOVE, 10% POROSITY, INTERGRANULAR, VUGULAR, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, FOSSIL FRAGMENTS, MOLLUSKS, SHARK TEETH,

550.0- 555.0 LIMESTONE, WHITE,

555.0- 550.0 FROM 541 CALCARENITE WITH MICRITE MATRIX AND MED. SIZED FRAG

550.0- 565.0 AS ABOVE,

565.0- 575.0 NO SAMPLE,

575.0- 590.0 LIMESTONE, WHITE TO VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: COARSE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA, MOLLUSKS,

LITHOLOGIC LOG
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590.0- 600.0 LIMESTONE, WHITE TO VERY LIGHT ORANGE, 10% POROSITY, VUGULAR, POSSIBLY HIGH PERMEABILITY, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL, 30% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MEDIUM TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, 06% PHOSPHATIC SAND, 10% QUARTZ SAND, CLAY, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA, MOLLUSKS,

600.0- 605.0 NO SAMPLE,

605.0- 610.0 AS ABOVE,

610.0- 625.0 LIMESTONE, VERY LIGHT GRAY TO MODERATE LIGHT GRAY, 12% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL, 35% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: COARSE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, CHALKY, FOSSIL FRAGMENTS, MOLLUSKS, ECHINOID, BENTHONIC FORAMINIFERA,

GYPSINA GLOBULA, ECHNOID SPINES, MOLLUSK FRAGMENTS

625.0- 635.0 LIMESTONE, VERY LIGHT GRAY TO MODERATE LIGHT GRAY, 12% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL, 40% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: COARSE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, CHALKY, COQUINA, FOSSIL FRAGMENTS, MOLLUSKS, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA,

635.0- 640.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH ORANGE, POROSITY, POSSIBLY HIGH PERMEABILITY, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL, 55% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: COARSE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, CHALKY, COQUINA, FOSSIL FRAGMENTS, MOLLUSKS, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA,

640.0- 665.0 AS ABOVE,

665.0- 675.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH ORANGE, 12% POROSITY, POSSIBLY HIGH PERMEABILITY, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: VERY FINE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, CHALKY, COQUINA, FOSSIL FRAGMENTS, MOLLUSKS, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA,

ROCK COMPOSED OF 60-75 PERCENT FORAMS, MAINLY OPERCULINOIDES LEPS. AND POSSIBLY CAMERINIDAE.

675.0- 685.0 AS ABOVE,

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685.0- 695.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, POSSIBLY HIGH PERMEABILITY, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: COARSE, RANGE: GRANULE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, FOSSIL FRAGMENTS, MOLLUSKS, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA,

695.0- 705.0 AS ABOVE,

705.0- 715.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, POSSIBLY HIGH PERMEABILITY, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: GRANULE, RANGE: GRAVEL TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, FOSSIL FRAGMENTS, MOLLUSKS, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA,

715.0- 725.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH ORANGE, 12% POROSITY, POSSIBLY HIGH PERMEABILITY, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: GRANULE, RANGE: GRAVEL TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, FOSSIL FRAGMENTS, MOLLUSKS, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA,

725.0- 745.0 AS ABOVE,

745.0- 755.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH ORANGE, 12% POROSITY, POSSIBLY HIGH PERMEABILITY, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: GRANULE, RANGE: GRAVEL TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, FOSSIL FRAGMENTS, MOLLUSKS, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA,

ROCK MADE UP MOSTLY OF FOSSIL FRAGMENTS, MOSTLY FORAMS

755.0- 810.0 AS ABOVE,

810.0- 820.0 LIMESTONE, VERY LIGHT GRAY TO VERY LIGHT ORANGE, 12% POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: GRANULE, RANGE: GRAVEL TO MICROCRYSTALLINE, POOR INDURATION, CALCILUTITE MATRIX, COQUINA, FOSSIL FRAGMENTS, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID,

820.0- 890.0 AS ABOVE,

890.0- 895.0 FROM 889 REDRILLED. LARGE ECHINOID IN INTERVAL 889-895. PROBABLY PERIARCHUS LYELLI (QUESTIONABLE)

LITHOLOGIC LOG
W- 1464 . HIGHLANDS CO. T36S, R29E, SEC 02AA

LIMESTONE, WHITE TO VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE, 70% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: GRANULE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, COQUINA, FOSSIL FRAGMENTS, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

895.0- 900.0 LIMESTONE, WHITE TO VERY LIGHT ORANGE, 12% POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: GRANULE, RANGE: GRAVEL TO MICROCRYSTALLINE, POOR INDURATION, CALCILUTITE MATRIX, COQUINA, FOSSIL FRAGMENTS, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

ROCK COMPOSED IN LARGE PART OF OPERCULINOIDES AND SOME LEPS. MOLLUSK FRAGMENTS

900.0- 909.0 LIMESTONE, WHITE TO VERY LIGHT ORANGE, 12% POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN TYPE: OOLITE CAST, CRYSTALS, CALCILUTITE, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY COARSE, RANGE: GRANULE TO MICROCRYSTALLINE, POOR INDURATION, CALCILUTITE MATRIX, PYRITE, COQUINA, FOSSIL FRAGMENTS, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

909.0- 910.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: VERY COARSE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, FOSSIL FRAGMENTS, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

LARGELY CALCARENITE, WITH FORAMS, FRAGMENTS OF MOLLUSKS, ECHINOIDES, AND CALCITE CRYSTALS

910.0- 920.0 LIMESTONE, VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN, 10% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: VERY COARSE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, IRON STAIN, COQUINA, FOSSIL FRAGMENTS, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

PIECES OF IRON CUTTINGS STAINED THE SAMPLES

LITHOLOGIC LOG
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920.0- 925.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: VERY COARSE TO MICROCRYSTALLINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, INTERBEDDED, VARVED, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

DICTYOCONUS SP. NOTED, QUINQUELOCULINA POSSIBLY, LEPS. AND OPERCULINOIDES

925.0- 935.0 AS ABOVE,

935.0- 940.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: VERY COARSE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, IRON STAIN, COQUINA, FOSSIL FRAGMENTS, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

FORAMS CONSIST OF OPERCULINOIDES-CAMERINIDAE, CONES, AND OF LEPS., WHICH MIGHT HAVE COME FROM ABOVE.

940.0- 950.0 AS ABOVE,

950.0- 960.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 70% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: GRANULE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, FOSSIL FRAGMENTS, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID,

960.0- 980.0 AS ABOVE,

980.0- 985.0 LIMESTONE, 08% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 55% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: GRANULE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, FOSSIL FRAGMENTS, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID,

LESS CALCITE CRYSTALS, MORE MICRITE. CONES, OPERCULINOIDES CAMERINIDAE

985.0- 1005.0 AS ABOVE,

LITUONELLA SP. POSSIBLY, CONES, OPERCULINOIDES-CAMERINIDAE, LEPS., SOME PROBABLY CONTAMINATIONS

LITHOLOGIC LOG
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1005.0- 1010.0 LIMESTONE, VERY LIGHT GRAY TO VERY LIGHT ORANGE, 08% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 65% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: GRANULE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, FOSSIL FRAGMENTS, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID,

1010.0- 1025.0 AS ABOVE,

1025.0- 1035.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH BROWN, 08% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 65% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: GRANULE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, FOSSIL FRAGMENTS, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID,

1035.0- 1045.0 LIMESTONE, VERY LIGHT GRAY TO MODERATE LIGHT GRAY, 10% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 65% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: GRANULE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, FOSSIL FRAGMENTS, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID,

1045.0- 1050.0 AS ABOVE,

1050.0- 1055.0 NO SAMPLE,

1055.0- 1065.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH BROWN, 10% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 65% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: GRANULE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, FOSSIL FRAGMENTS, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID,

FOSSILS MOSTLY CONES, COSKINOLINA SP. AND MOLLUSK FRAGMENTS, SOME OPERC. AND LEPS., PROBABLY CONTAMINATIONS

1065.0- 1075.0 LIMESTONE, GRAYISH BROWN, 10% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 55% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: GRANULE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, 40% DOLOMITE, FOSSIL FRAGMENTS, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

1075.0- 1085.0 AS ABOVE,

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1085.0- 1095.0 LIMESTONE, VERY LIGHT GRAY TO GRAYISH BROWN, 10% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 40% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: GRANULE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 15% DOLOMITE, FOSSIL FRAGMENTS, MOLLUSKS, BENTHONIC FORAMINIFERA, ECHINOID,

1095.0- 1115.0 AS ABOVE,

1115.0- 1125.0 NO SAMPLE,

1125.0- 1135.0 AS ABOVE,

1135.0- 1145.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH BROWN, 12% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 55% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY COARSE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA, MOLLUSKS,

ESSENTIALLY A CALCARENITE WITH VERY LITTLE FOSSILS

1145.0- 1155.0 AS ABOVE,

1155.0- 1165.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH BROWN, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN TYPE: CALCILUTITE, INTRACLASTS, GRAIN SIZE: MEDIUM, RANGE: COARSE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

LIMESTONE FRAGMENTS ROUNDED (ABRAIDED POSSIBLY), WITH CONES, FABULARIA SP., OPERCULINOIDES

1165.0- 1185.0 AS ABOVE,

1185.0- 1195.0 NO SAMPLE,

1195.0- 1205.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH BROWN, 08% POROSITY, INTERGRANULAR, FRACTURE, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 35% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: VERY COARSE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, 10% DOLOMITE, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

1205.0- 1215.0 AS ABOVE,

1215.0- 1225.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH BROWN, 10% POROSITY, INTERGRANULAR, VUGULAR, FRACTURE, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 35% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: VERY COARSE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, 20% DOLOMITE, CHALKY, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

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1225.0- 1245.0 AS ABOVE,

1245.0- 1255.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH BROWN, 10% POROSITY, INTERGRANULAR, VUGULAR, FRACTURE, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 40% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, 05% DOLOMITE, CHALKY, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

1255.0- 1265.0 AS ABOVE,

1265.0- 1275.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH BROWN, 08% POROSITY, INTERGRANULAR, FRACTURE, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 45% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: VERY COARSE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, CHALKY, OOLITES, BENTHONIC FORAMINIFERA,

1275.0- 1285.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH BROWN, 12% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 60% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY COARSE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, 05% DOLOMITE, CHALKY, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

1285.0- 1305.0 AS ABOVE,

1305.0- 1315.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH BROWN, 10% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL, 40% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: COARSE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

FORAMS MOSTLY CONFS AND MAKE UP 30-50 PERCENT OF ROCK

1315.0- 1325.0 AS ABOVE,

1325.0- 1335.0 LIMESTONE, VERY LIGHT ORANGE TO DARK YELLOWISH BROWN, 10% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCPYSTALLINE, RANGE: COARSE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, 10% DOLOMITE, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

1335.0- 1345.0 AS ABOVE,

1345.0- 1355.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH BROWN, 10% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: COARSE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, 35% DOLOMITE, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

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W- 1464 . HIGHLANDS CO. T36S, R29E, SEC 02AA

1355.0- 1365.0 LIMESTONE, VERY LIGHT ORANGE TO DARK YELLOWISH BROWN, 12% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: COARSE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, 45% DOLOMITE, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

1365.0- 1375.0 AS ABOVE,

1375.0- 1385.0 DOLOMITE, VERY LIGHT ORANGE TO DARK YELLOWISH BROWN, 12% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, 40% LIMESTONE, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

1385.0- 1395.0 DOLOMITE, VERY LIGHT ORANGE TO DARK YELLOWISH BROWN, 12% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: FINE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, 30% LIMESTONE, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

LIMESTONE FROM ABOVE POSSIBLY AS CONTAMINANTS INCLUDING THE FOSSILS (QUESTIONABLE)

1395.0- 1415.0 AS ABOVE,

1415.0- 1425.0 DOLOMITE, DARK YELLOWISH BROWN TO GRAYISH BROWN, 15% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, 90-100% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MEDIUM TO MICROCRYSTALLINE, MODERATE INDURATION, DOLOMITE CEMENT, 20% LIMESTONE, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

1425.0- 1435.0 AS ABOVE,

1435.0- 1445.0 DOLOMITE, GRAYISH ORANGE TO DARK YELLOWISH BROWN, 15% POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: FINE TO MICROCRYSTALLINE, MODERATE INDURATION, DOLOMITE CEMENT, 20% LIMESTONE,

1445.0- 1455.0 AS ABOVE,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W- 1754

POLK CO. T30S R28E SEC 18 N W

TOTAL DEPTH- 1080 FT. ELEV.- 147 FT. 148 SAMPLES- 0- 1080 FT.

COMPLETED- 48.07.25 DEPTH WORKED 1080 FT.

WELL NAME-

VILLAGE OF HIGHLAND PARK LAYNE-ATLANTIC CO. (ORLANDO)

REMARKS-

SAMPLES DESCRIBED BY CHRISTOPHER WAYNE

EXCELLENT SAMPLES

RECODED BY JON E. SHAW, SFWMD, APRIL 13, 1982

STRATIGRAPHIC FORMATIONS -

0.0-	180.0	UNDIFFERENTIATED SAND, CLAY AND SHELLS
180.0-	240.0	HAWTHORN FORMATION
240.0-	580.0	OCALA GROUP
240.0-	450.0	CRYSTAL RIVER FORMATION
450.0-	580.0	WILLISTON-INGLIS
580.0-	770.0	AVON PARK LIMESTONE
770.0-	1080.0	LAKE CITY LIMESTONE

LITHOLOGIC LOG

W- 1754 . POLK CO. T30S, R28E, SEC 18

0.0-	10.0	SAND, LIGHT YELLOWISH ORANGE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO COARSE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 02% PHOSPHATIC SAND, NO FOSSIL,
10.0-	20.0	AS ABOVE,
20.0-	30.0	SAND, LIGHT YELLOWISH ORANGE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO VERY COARSE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 02% PHOSPHATIC SAND, NO FOSSIL,
30.0-	40.0	SAND, LIGHT YELLOWISH ORANGE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO VERY COARSE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 02% PHOSPHATIC SAND, 01% LIMESTONE, NO FOSSIL,
40.0-	50.0	SAND, VERY LIGHT ORANGE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO VERY COARSE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 02% PHOSPHATIC SAND, NO FOSSIL,
50.0-	60.0	AS ABOVE,
60.0-	70.0	SAND, VERY LIGHT ORANGE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO GRANULE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 01% PHOSPHATIC SAND, NO FOSSIL,

LITHOLOGIC LOG
W- 1754 . POLK CO. T30S, R28E, SEC 18

70.0- 80.0 SAND, WHITE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO GRANULE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 01% PHOSPHATIC SAND, NO FOSSIL,

80.0- 100.0 AS ABOVE,

100.0- 120.0 NO SAMPLE,

120.0- 130.0 SAND, WHITE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: MEDIUM TO GRANULE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 01% PHOSPHATIC SAND, NO FOSSIL,

130.0- 150.0 NO SAMPLE,

150.0- 160.0 SAND, WHITE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO VERY COARSE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 20% CLAY, 01% PHOSPHATIC SAND, 03% MICA, NO FOSSIL,

160.0- 170.0 SAND, GRAYISH BROWN RED TO VERY LIGHT ORANGE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO VERY COARSE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 10% PHOSPHATIC GRAVEL, 02% PHOSPHATIC SAND, 04% LIMESTONE, NO FOSSIL,

170.0- 180.0 SAND, WHITE TO BLACK, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 05% CLAY, 01% PHOSPHATIC SAND, 03% MICA, NO FOSSIL,

180.0- 195.0 SAND, VERY LIGHT GRAY TO GRAYISH BROWN RED, 33% POROSITY, INTERGRANULAR, GRAIN SIZE: COARSE, RANGE: FINE TO VERY COARSE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 15% PHOSPHATIC GRAVEL, 04% PHOSPHATIC SAND, 10% LIMESTONE, 02% IRON STAIN,

195.0- 200.0 SAND, VERY LIGHT GRAY, 33% POROSITY, INTERGRANULAR, RANGE: MEDIUM TO GRANULE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, 20% DOLOMITE, 05% PHOSPHATIC GRAVEL, 08% PHOSPHATIC SAND, NO FOSSIL,

200.0- 230.0 NO SAMPLE,

230.0- 240.0 LIMESTONE, VERY LIGHT ORANGE TO VERY LIGHT GRAY, 23% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 40% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, 02% PHOSPHATIC GRAVEL, 05% DOLOMITE, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA, MOLLUSKS, ECHINOID,

WITH LEPIDOCYCLINA SP., PHOSPHATE POSSIBLY DUE TO CAVING

LITHOLOGIC LOG
W- 1754 . POLK CO. T30S, R28E, SEC 18

240.0- 250.0 LIMESTONE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 23% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 40% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, 02% PHOSPHATIC GRAVEL, 05% DOLOMITE, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA, MOLLUSKS, ECHINOID,

WITH GYPSINA GLOBULA

250.0- 260.0 LIMESTONE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 23% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 40% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, 06% PHOSPHATIC GRAVEL, 05% DOLOMITE, 02% PHOSPHATIC SAND, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA, MOLLUSKS, BRYOZOA, ECHINOID,

260.0- 270.0 LIMESTONE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 23% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 40% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, 03% DOLOMITE, 01% PHOSPHATIC SAND, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA, MOLLUSKS, BRYOZOA, ECHINOID,

WITH OPERCULINOIDES SP.

270.0- 280.0 AS ABOVE,

280.0- 290.0 LIMESTONE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 23% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 40% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, 03% DOLOMITE, 01% PHOSPHATIC SAND, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA, MOLLUSKS, BRYOZOA, ECHINOID, SHARK TEETH,

290.0- 300.0 DOLOMITE, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, UNCONSOLIDATED, 02% PHOSPHATIC SAND, 01% QUARTZ SAND, 25% CALCILUTITE, CHALKY, COQUINA, BENTHONIC FORAMINIFERA, MOLLUSKS, ECHINOID,

300.0- 310.0 AS ABOVE,

WITH O. MOODYSBRANCHENSIS

310.0- 340.0 AS ABOVE,

WITH NUMMULITES VANDERSTOKI

340.0- 360.0 AS ABOVE,

LITHOLOGIC LOG
W- 1754 . POLK CO. T30S, R28E, SEC 18

360.0- 370.0 CALCARENITE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 25% POROSITY, INTERGRANULAR, MOLDIC, GOOD INDURATION, CALCILUTITE MATRIX, 20% CALCILUTITE, 01% PHOSPHATIC SAND, 01% QUARTZ SAND, 01% DOLOMITE, CHALKY, BENTHONIC FORAMINIFERA, ECHINOID,

370.0- 390.0 AS ABOVE,

WITH HETEROSTEGINA OCALANA

390.0- 400.0 AS ABOVE,

400.0- 410.0 CALCARENITE, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, UNCONSOLIDATED, 20% CALCILUTITE, 01% PHOSPHATIC GRAVEL, 01% QUARTZ SAND, CHALKY, BENTHONIC FORAMINIFERA, ECHINOID,

410.0- 430.0 AS ABOVE,

430.0- 440.0 CALCARENITE, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, UNCONSOLIDATED, 05% CALCILUTITE, 01% QUARTZ SAND, 01% PHOSPHATIC SAND, BENTHONIC FORAMINIFERA, ECHINOID,

440.0- 450.0 AS ABOVE,

450.0- 460.0 LIMESTONE, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: INTRACLASTS, CRYSTALS, SKELETAL, 05% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: CRYPTOCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 05% SPAR, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA, ECHINOID,

MILIOLID LIMESTONE AND LESS FORAMS

460.0- 480.0 AS ABOVE,

480.0- 490.0 CALCARENITE, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, 15% CALCILUTITE, 01% QUARTZ SAND, 01% PHOSPHATIC SAND, BENTHONIC FORAMINIFERA, ECHINOID, MOLLUSKS, BRYOZOA,

PRIMARILY CRYSTAL RIVER SAMPLE, CAVING OR MISPLACED SAMPLE.

490.0- 500.0 LIMESTONE, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: INTRACLASTS, CRYSTALS, SKELETAL, 05% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: CRYPTOCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 10% SPAR, 01% QUARTZ SAND, 01% PHOSPHATIC GRAVEL, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA, MOLLUSKS,

WITH DISCORONOPIS GUNTERI, DICTYCONUS COOKEI, NONION ADVENUM

LITHOLOGIC LOG
W- 1754 . POLK CO. T30S, R28E, SEC 18

500.0- 510.0 LIMESTONE, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: INTRACLASTS, CRYSTALS, SKELETAL, 05% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: CRYPTOCRYSTALLINE, RANGE: MEDIUM TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 02% SPAR, 03% QUARTZ SAND, 02% PHOSPHATIC SAND, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA, MOLLUSKS,

ABUNDANT LEPS AND GYPSINA SP. AND SAND INDICATE CAVING

510.0- 520.0 LIMESTONE, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: INTRACLASTS, CRYSTALS, SKELETAL, 05% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: CRYPTOCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 25% QUARTZ SAND, 01% PHOSPHATIC SAND, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA, MOLLUSKS,

LARGE AMNT. OF SAND DENOTES CAVING (POORLY SORTED)

520.0- 530.0 AS ABOVE,

530.0- 540.0 LIMESTONE, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: INTRACLASTS, CRYSTALS, SKELETAL, 05% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: CRYPTOCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 60% QUARTZ SAND, 01% PHOSPHATIC SAND, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA, WORM TRACES,

POOR SAMPLE (CAVING)

540.0- 550.0 AS ABOVE,

550.0- 560.0 LIMESTONE, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: INTRACLASTS, CRYSTALS, SKELETAL, 05% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: CRYPTOCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 60% QUARTZ SAND, 01% PHOSPHATIC GRAVEL, 01% PYRITE, 02% SPAR, BENTHONIC FORAMINIFERA, ECHINOID,

560.0- 580.0 AS ABOVE,

580.0- 590.0 LIMESTONE, VERY LIGHT ORANGE, 22% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 70% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 02% SPAR, 02% QUARTZ SAND, BENTHONIC FORAMINIFERA, ECHINOID, OSTRACODS,

WITH DICTYCONUS COOKEI

590.0- 600.0 AS ABOVE,

LITHOLOGIC LOG
W- 1754 . POLK CO. T30S, R28E, SEC 18

600.0- 610.0 LIMESTONE, VERY LIGHT ORANGE, 22% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 70% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 02% SPAR, 20% QUARTZ SAND, 01% DOLOMITE, COQUINA, BENTHONIC FORAMINIFERA, ECHINOID,

WITH DICYCONUS GUNTERI

610.0- 620.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH BROWN, 21% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 10% SPAR, 02% QUARTZ SAND, 01% DOLOMITE, 01% PYRITE, BENTHONIC FORAMINIFERA, ECHINOID, MOLLUSKS,

620.0- 630.0 AS ABOVE,

630.0- 646.6 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH BROWN, 21% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 05% SPAR, 02% QUARTZ SAND, 01% DOLOMITE, BENTHONIC FORAMINIFERA, ECHINOID, MOLLUSKS, ORGANICS,

646.6- 650.0 AS ABOVE,

WITH LITUONELLA FLORIDANA

650.0- 660.0 LIMESTONE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 20% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 10% DOLOMITE, 05% SPAR, 03% QUARTZ SAND, 01% PYRITE, BENTHONIC FORAMINIFERA, ECHINOID,

660.0- 670.0 LIMESTONE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 20% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 50% DOLOMITE, 10% QUARTZ SAND, BENTHONIC FORAMINIFERA, ECHINOID,

670.0- 680.0 LIMESTONE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 20% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 50% DOLOMITE, 20% QUARTZ SAND, BENTHONIC FORAMINIFERA, ECHINOID,

MEDIUM TO COARSE SAND (CAVING)

LITHOLOGIC LOG
W- 1754 . POLK CO. T30S, R28E, SEC 18

680.0- 690.0 LIMESTONE, VERY LIGHT ORANGE, 22% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, 05% DOLOMITE, 10% QUARTZ SAND, 01% PYRITE, BENTHONIC FORAMINIFERA, ECHINOID,

690.0- 700.0 LIMESTONE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 20% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 50% DOLOMITE, 10% QUARTZ SAND, BENTHONIC FORAMINIFERA, ECHINOID,

700.0- 710.0 DOLOMITE, VERY LIGHT GRAY TO GRAYISH ORANGE, 18% POROSITY, INTERGRANULAR, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 40% QUARTZ SAND, 10% LIMESTONE, 01% PYRITE, BENTHONIC FORAMINIFERA,

710.0- 720.0 LIMESTONE, VERY LIGHT ORANGE, 22% POROSITY, INTERGRANULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 01% DOLOMITE, 01% QUARTZ SAND, 01% PYRITE, BENTHONIC FORAMINIFERA,

720.0- 750.0 AS ABOVE,

750.0- 760.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH ORANGE, 22% POROSITY, INTERGRANULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, 05% DOLOMITE, 02% QUARTZ SAND, 01% PYRITE, BENTHONIC FORAMINIFERA,

WITH SPIROLINA CORYENSIS

760.0- 770.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH ORANGE, 22% POROSITY, INTERGRANULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, 05% DOLOMITE, 01% QUARTZ SAND, 01% PYRITE, BENTHONIC FORAMINIFERA, MOLLUSKS,

770.0- 780.0 AS ABOVE,

WITH DICTYCONUS AMERICANUS

LITHOLOGIC LOG
W- 1754 . POLK CO. T30S, R28E, SEC 18

780.0- 790.0 LIMESTONE, VERY LIGHT ORANGE, 22% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, 02% DOLOMITE, 01% QUARTZ SAND, 01% PEAT, BENTHONIC FORAMINIFERA, ECHINOID,

790.0- 800.0 AS ABOVE,

800.0- 810.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH ORANGE, 23% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, CALCILUTITE MATRIX, 40% DOLOMITE, 01% QUARTZ SAND, 01% PEAT, 01% PYRITE, BENTHONIC FORAMINIFERA,

810.0- 820.0 DOLOMITE, GRAYISH ORANGE TO VERY LIGHT ORANGE, 24% POROSITY, INTERGRANULAR, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 15% LIMESTONE, 01% IRON STAIN, 01% QUARTZ SAND, ECHINOID,

820.0- 830.0 DOLOMITE, GRAYISH ORANGE TO VERY LIGHT ORANGE, 24% POROSITY, INTERGRANULAR, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 10% LIMESTONE, 01% PEAT, 01% PYRITE, 01% QUARTZ SAND, NO FOSSIL,

830.0- 840.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH ORANGE, 24% POROSITY, INTERGRANULAR, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 05% LIMESTONE, 01% QUARTZ SAND, NO FOSSIL,

840.0- 850.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH ORANGE, 24% POROSITY, INTERGRANULAR, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 01% QUARTZ SAND, 01% LIMESTONE, NO FOSSIL,

850.0- 860.0 AS ABOVE,

860.0- 870.0 DOLOMITE, GRAYISH BROWN, 24% POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 01% QUARTZ SAND, NO FOSSIL,

870.0- 880.0 NO SAMPLE,

880.0- 910.0 AS ABOVE,

LITHOLOGIC LOG
W- 1754 . POLK CO. T30S, R28E, SEC 18

910.0- 920.0 DOLOMITE, GRAYISH BROWN, 24% POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 01% LIMESTONE, 01% QUARTZ SAND, NO FOSSIL,

920.0- 960.0 AS ABOVE,

960.0- 970.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH BROWN, 24% POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, 02% LIMESTONE, 01% QUARTZ SAND, NO FOSSIL,

970.0- 980.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH BROWN, 24% POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, 04% LIMESTONE, 01% QUARTZ SAND, NO FOSSIL,

980.0- 990.0 AS ABOVE,

990.0- 1000.0 DOLOMITE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 22% POROSITY, INTERGRANULAR, PIN POINT VUGS, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 01% QUARTZ SAND, NO FOSSIL,

1000.0- 1010.0 DOLOMITE, MODERATE LIGHT GRAY TO GRAYISH BROWN, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 01% QUARTZ SAND, NO FOSSIL,

WITH COARSE FRAGMENTS OF DARK GRAY DOLOMITE

1010.0- 1020.0 DOLOMITE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 23% POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, CHALKY, NO FOSSIL,

1020.0- 1040.0 AS ABOVE,

1040.0- 1050.0 DOLOMITE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 23% POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 01% QUARTZ SAND, NO FOSSIL,

1050.0- 1060.0 DOLOMITE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 23% POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 01% QUARTZ SAND, 01% LIMESTONE, NO FOSSIL,

LITHOLOGIC LOG
W- 1754 . POLK CO. T30S, R28E, SEC 18

1060.0- 1070.0 DOLOMITE, VERY LIGHT ORANGE TO MODERATE LIGHT GRAY, 23% POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 01% QUARTZ SAND, 01% LIMESTONE, 01% PYRITE, NO FOSSIL,

1070.0- 1080.0 DOLOMITE, GRAYISH BROWN, 23% POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 01% QUARTZ SAND, 01% HEMATITE, NO FOSSIL,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W- 1882

OSCEOLA CO. T26S R31E SEC 05AC N W
TOTAL DEPTH- 470 FT. ELEV.- 77 FT. 45 SAMPLES- 40- 470 FT.
COMPLETED- 49.03.04 DEPTH WORKED 470 FT.

WELL NAME-
L. MUSSMAN
REMARKS-
WORKED BY M.H. SHAFIE, MARCH 11, 1976
RECODED BY JON E. SHAW, SFWMD, MARCH 16, 1982

HYDROGEOLOGIC UNITS

0.0-	130.0	SHALLOW AQUIFER SYSTEM
130.0-	230.0	HAWTHORN CONFINING BEDS
230.0-	470.0	FLORIDAN AQUIFER SYSTEM

STRATIGRAPHIC FORMATIONS -

0.0-	90.0	UNDIFFERENTIATED SAND, CLAY AND SHELLS
90.0-	230.0	HAWTHORN FORMATION
230.0-	270.0	OCALA GROUP
270.0-	470.0	AVON PARK LIMESTONE

LITHOLOGIC LOG
W- 1882 . OSCEOLA CO. T26S, R31E, SEC 05AC

0.0- 30.0 NO SAMPLE,

30.0- 40.0 SAND, GRAYISH BROWN, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 02% CLAY, 02% SILT,

40.0- 50.0 SAND, GRAYISH BROWN, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 01% HEAVY MINERALS, 02% CLAY,

50.0- 60.0 SAND, GRAYISH BROWN, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 02% CLAY, 01% HEAVY MINERALS,

60.0- 70.0 SILT, DARK YELLOWISH BROWN, 05% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, 20% CLAY, 10% QUARTZ SAND,

70.0- 80.0 SAND, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 02% CLAY, 01% PHOSPHATIC SAND,

LITHOLOGIC LOG
W- 1882 . OSCEOLA CO. T26S, R31E, SEC 05AC

80.0- 90.0 SAND, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 07% PHOSPHATIC SAND, 05% CLAY, MOLLUSKS,

90.0- 100.0 SHELL BED, WHITE, 30% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, CALCILUTITE MATRIX, 20% QUARTZ SAND, 02% PHOSPHATIC SAND, 02% HEAVY MINERALS, 02% CLAY, MOLLUSKS, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

100.0- 110.0 AS ABOVE,

110.0- 120.0 SHELL BED, WHITE, 30% POROSITY, INTERGRANULAR, POOR INDURATION, CALCILUTITE MATRIX, 15% QUARTZ SAND, 15% CALCILUTITE, MOLLUSKS, FOSSIL FRAGMENTS,

120.0- 130.0 AS ABOVE,

130.0- 140.0 SILT, LIGHT OLIVE GRAY TO VERY LIGHT ORANGE, 15% POROSITY, INTERGRANULAR, MOLDIC, POOR INDURATION, CALCILUTITE MATRIX, CLAY MATRIX, 30% QUARTZ SAND, 01% PHOSPHATIC SAND, CALCAREOUS, MOLLUSKS, FOSSIL FRAGMENTS, FOSSIL MOLDS, BENTHONIC FORAMINIFERA,

140.0- 150.0 LIMESTONE, VERY LIGHT GRAY, 08% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN TYPE: SKELETAL, BIOGENIC, CALCILUTITE, RANGE: MICROCRYSTALLINE TO VERY COARSE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 35% QUARTZ SAND, 05% PHOSPHATIC SAND, MOLLUSKS, FOSSIL MOLDS,

150.0- 160.0 AS ABOVE,

160.0- 170.0 SAND, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CALCILUTITE MATRIX, 02% PHOSPHATIC SAND, MOLLUSKS, BENTHONIC FORAMINIFERA,

170.0- 180.0 SAND, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CALCILUTITE MATRIX, 03% PHOSPHATIC SAND, MOLLUSKS, BENTHONIC FORAMINIFERA,

180.0- 190.0 SHELL BED, YELLOWISH GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, CALCILUTITE MATRIX, 20% QUARTZ SAND, MOLLUSKS, FOSSIL FRAGMENTS,

190.0- 200.0 AS ABOVE,

200.0- 210.0 SAND, YELLOWISH GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, DOLOMITE CEMENT, 05% PHOSPHATIC SAND, 05% DOLOMITE, 05% SILT, MOLLUSKS,

LITHOLOGIC LOG
W- 1882 . OSCEOLA CO. T26S, R31E, SEC 05AC

210.0- 230.0 AS ABOVE,

230.0- 240.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: COARSE TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 20% QUARTZ SAND, MOLLUSKS,

240.0- 250.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MEDIUM TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, FOSSIL MOLDS, FOSSIL FRAGMENTS, ECHINOID,

AMPHESTIGINA

250.0- 260.0 LIMESTONE, VERY LIGHT ORANGE, 15% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MEDIUM TO CRYPTOCRYSTALLINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA,

260.0- 270.0 LIMESTONE, VERY LIGHT ORANGE, 16% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: COARSE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

270.0- 280.0 LIMESTONE, VERY LIGHT ORANGE, 15% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: COARSE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

280.0- 320.0 AS ABOVE,

320.0- 330.0 LIMESTONE, VERY LIGHT ORANGE, 14% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: FINE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, 25% QUARTZ SAND, 05% PHOSPHATIC SAND, CONES, BENTHONIC FORAMINIFERA,

330.0- 340.0 LIMESTONE, VERY LIGHT ORANGE, 14% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MEDIUM TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS, FOSSIL MOLDS,

LITHOLOGIC LOG
W- 1882 . OSCEOLA CO. T26S, R31E, SEC 05AC

340.0- 350.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MEDIUM TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, FOSSIL MOLDS,

350.0- 360.0 LIMESTONE, VERY LIGHT ORANGE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MEDIUM TO CRYPTOCRYSTALLINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

360.0- 370.0 LIMESTONE, VERY LIGHT ORANGE, 14% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MEDIUM TO CRYPTOCRYSTALLINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

370.0- 380.0 LIMESTONE, VERY LIGHT ORANGE, 14% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MEDIUM TO CRYPTOCRYSTALLINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, FOSSIL MOLDS,

380.0- 390.0 LIMESTONE, VERY LIGHT ORANGE, 15% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: FINE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 15% QUARTZ SAND, 05% PHOSPHATIC SAND, CONES, BENTHONIC FORAMINIFERA,

390.0- 400.0 LIMESTONE, VERY LIGHT ORANGE, 14% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: FINE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 12% QUARTZ SAND, 04% PHOSPHATIC SAND, CONES, BENTHONIC FORAMINIFERA,

400.0- 410.0 LIMESTONE, VERY LIGHT ORANGE, 14% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: FINE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 12% QUARTZ SAND, 03% PHOSPHATIC SAND, CONES,

LITHOLOGIC LOG
W- 1882 . OSCEOLA CO. T26S, R31E, SEC 05AC

410.0- 420.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: FINE TO CRYPTOCRYSTALLINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 05% QUARTZ SAND, 02% PHOSPHATIC SAND, CONES, BENTHONIC FORAMINIFERA,

420.0- 430.0 DOLOMITE, VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, 10-50% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: FINE TO MICROCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, CONES,

LIMESTONE IN SAMPLE CAVING ABOVE POSSIBLY

430.0- 450.0 AS ABOVE,

450.0- 460.0 DOLOMITE, VERY LIGHT ORANGE, POROSITY, LOW PERMEABILITY, 10-50% ALTERED, ANHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT,

460.0- 470.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, PELLET, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MEDIUM TO CRYPTOCRYSTALLINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

DOLOMITE, VERY LIGHT ORANGE, POROSITY, LOW PERMEABILITY, 10-50% ALTERED, ANHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W- 6282
HIGHLANDS CO. T39S R30E SEC 06CC N W
TOTAL DEPTH- FT. ELEV.- 137 FT. SAMPLES- - FT.
COMPLETED- 62.06. DEPTH WORKED 1250 FT.

WELL NAME-
ANDREW JACKSON DRILLER - CHUCKS WELL DRILLING
REMARKS-
LOGGED BY D.H. SLATER
JAN. 29, 1976
SAMPLE QUANTITY - GOOD
RECODED BY JON E. SHAW, SFWMD, MARCH 16, 1982

STRATIGRAPHIC FORMATIONS -

0.0-	325.0	UNDIFFERENTIATED SAND, CLAY AND SHELLS
325.0-	670.0	HAWTHORN FORMATION
670.0-	710.0	SUWANNEE LIMESTONE
710.0-	1050.0	OCALA GROUP
710.0-	980.0	CRYSTAL RIVER FORMATION
980.0-	1050.0	WILLISTON-INGLIS
1050.0-	1250.0	AVON PARK LIMESTONE

LITHOLOGIC LOG
W- 6282 . HIGHLANDS CO. T39S, R30E, SEC 06CC

0.0- 10.0 SAND, VERY LIGHT ORANGE, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED,

10.0- 20.0 SAND, WHITE, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED,

20.0- 45.0 AS ABOVE,

45.0- 50.0 SAND, GRAYISH BROWN, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED,

50.0- 60.0 SAND, VERY LIGHT ORANGE, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED,

60.0- 70.0 SAND, MODERATE BROWN, GRAIN SIZE: FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, 03% CLAY,

A FEW GRAINS HELD TOGETHER BY A CLAY CEMENT

70.0- 75.0 SAND, VERY LIGHT ORANGE, GRAIN SIZE: FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED,

LITHOLOGIC LOG
W- 6282 . HIGHLANDS CO. T39S, R30E, SEC 06CC

75.0- 80.0 SAND, GRAYISH ORANGE, GRAIN SIZE: FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED,

80.0- 100.0 AS ABOVE,

100.0- 110.0 SAND, VERY LIGHT ORANGE, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED,

110.0- 120.0 SAND, WHITE, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED,

120.0- 250.0 AS ABOVE,

250.0- 265.0 SAND, WHITE, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, 05% CLAY,

265.0- 280.0 SAND, WHITE, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, 01% CLAY, 01% MICA,

280.0- 300.0 SAND, WHITE, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, 25% CLAY,

300.0- 305.0 SAND, WHITE, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED,

305.0- 315.0 CLAY, LIGHT OLIVE GRAY TO GRAYISH OLIVE, 05% POROSITY, INTERGRANULAR, MODERATE INDURATION, CLAY MATRIX, 10% QUARTZ SAND, 01% MICA,

A SANDY CLAY

315.0- 325.0 SAND, YELLOWISH GRAY, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, 05% PHOSPHATIC SAND, 01% CLAY,

325.0- 335.0 CLAY, LIGHT OLIVE GRAY TO GRAYISH OLIVE, MODERATE INDURATION, CLAY MATRIX, 05% PHOSPHATIC SAND, 15% QUARTZ SAND, 01% LIMESTONE,

335.0- 340.0 PHOSPHATE, DARK GRAY TO VERY LIGHT GRAY, UNCONSOLIDATED, 10% QUARTZ SAND, 05% CLAY,

340.0- 350.0 SAND, YELLOWISH GRAY, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, 05% PHOSPHATIC SAND, 01% CLAY,

350.0- 360.0 PHOSPHATE, DARK GRAY TO VERY LIGHT GRAY, UNCONSOLIDATED, 05% QUARTZ SAND, 05% CLAY, 01% DOLOMITE,

LITHOLOGIC LOG
W- 6282 . HIGHLANDS CO. T39S, R30E, SEC 06CC

360.0- 370.0 LIMESTONE, WHITE TO VERY LIGHT GRAY, 05% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 15% PHOSPHATIC SAND, 15% DOLOMITE, 03% QUARTZ SAND,

370.0- 380.0 CLAY, MODERATE GRAYISH GREEN, 05% POROSITY, INTERGRANULAR, GOOD INDURATION, CLAY MATRIX, 05% LIMESTONE, 01% PHOSPHATIC SAND, 01% CLAY,

380.0- 390.0 LIMESTONE, MODERATE LIGHT GRAY, 05% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 15% PHOSPHATIC SAND, 15% DOLOMITE,

DOLOMITE IS LOW ALTERATION

390.0- 400.0 LIMESTONE, YELLOWISH GRAY TO VERY LIGHT ORANGE, 05% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 25% QUARTZ SAND, 05% PHOSPHATIC SAND, BRYOZOA, ECHINOID,

400.0- 410.0 LIMESTONE, WHITE TO VERY LIGHT GRAY, 05% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 03% QUARTZ SAND, 01% PHOSPHATIC SAND, ECHINOID,

410.0- 420.0 LIMESTONE, WHITE TO VERY LIGHT GRAY, 05% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 15% QUARTZ SAND, 05% PHOSPHATIC SAND, ECHINOID,

420.0- 430.0 AS ABOVE,

430.0- 440.0 LIMESTONE, WHITE TO VERY LIGHT GRAY, 05% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 05% QUARTZ SAND, 01% PHOSPHATIC SAND,

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440.0- 450.0 LIMESTONE, WHITE TO VERY LIGHT GRAY, 05% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 15% QUARTZ SAND, 05% PHOSPHATIC SAND,

450.0- 490.0 AS ABOVE,

490.0- 500.0 SAND, LIGHT GRAY, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 15% PHOSPHATIC SAND, 20% DOLOMITE, 01% CLAY,

500.0- 510.0 AS ABOVE,

510.0- 520.0 SAND, LIGHT GRAY, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 15% PHOSPHATIC SAND, 10% DOLOMITE, 03% CLAY, MOLLUSKS, ECHINOID,

520.0- 525.0 CLAY, YELLOWISH GRAY, 05% POROSITY, INTERGRANULAR, MODERATE INDURATION, CLAY MATRIX, 03% PHOSPHATIC SAND, 10% QUARTZ SAND, 01% DOLOMITE,

525.0- 530.0 CLAY, MODERATE GRAY, 05% POROSITY, INTERGRANULAR, MODERATE INDURATION, CLAY MATRIX, 01% PHOSPHATIC SAND, 01% QUARTZ SAND, 03% DOLOMITE,

530.0- 535.0 CLAY, MODERATE LIGHT GRAY, 05% POROSITY, INTERGRANULAR, MODERATE INDURATION, CLAY MATRIX, 10% PHOSPHATIC SAND, 05% QUARTZ SAND, U5% DOLOMITE,

535.0- 540.0 LIMESTONE, VERY LIGHT GRAY TO LIGHT OLIVE GRAY, 05% POROSITY, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, CALCILUTITE MATRIX, 01% PHOSPHATIC SAND, 15% QUARTZ SAND, 05% DOLOMITE, ECHINOID,

SANDY LIMESTONE

540.0- 545.0 AS ABOVE,

545.0- 550.0 LIMESTONE, VERY LIGHT GRAY TO LIGHT GRAY, 05% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, CALCILUTITE MATRIX, 05% QUARTZ SAND, 15% CLAY, 05% DOLOMITE,

550.0- 560.0 CLAY, LIGHT OLIVE GRAY TO VERY LIGHT GRAY, 05% POROSITY, INTERGRANULAR, MODERATE INDURATION, CLAY MATRIX, 15% QUARTZ SAND, 10% DOLOMITE, 01% PHOSPHATIC SAND,

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560.0- 570.0 SAND, LIGHT GRAY TO VERY LIGHT GRAY, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 10% DOLOMITE, 05% CLAY, 01% PHOSPHATIC SAND,

570.0- 580.0 AS ABOVE,

580.0- 595.0 SAND, LIGHT GRAY TO VERY LIGHT GRAY, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 20% DOLOMITE, 15% CLAY, 03% PHOSPHATIC SAND,

595.0- 604.0 SAND, LIGHT GRAY TO VERY LIGHT GRAY, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 10% DOLOMITE, 05% CLAY, 01% PHOSPHATIC SAND, ECHINOID,

604.0- 610.0 SAND, WHITE, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, 20% LIMESTONE, 05% PHOSPHATIC SAND, ECHINOID,

LIMESTONE FRAGMENTS ARE SANDY

610.0- 640.0 DOLOMITE, LIGHT OLIVE GRAY, 10% POROSITY, INTERGRANULAR, 50-90% ALTEPED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, 15% QUARTZ SAND, 10% CLAY, 05% PHOSPHATIC SAND,

640.0- 650.0 AS ABOVE,

650.0- 660.0 SAND, WHITE, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 20% CLAY, 05% LIMESTONE,

A FEW LARGE PIECES OF SANDY LIMESTONE IN SAMPLE

660.0- 670.0 CLAY, DARK GREENISH GRAY, 05% POROSITY, INTERGRANULAR, MODERATE INDURATION, CLAY MATRIX, 25% LIMESTONE, 10% QUARTZ SAND,

670.0- 680.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, CALCILUTITE MATRIX, 05% QUARTZ SAND, 05% DOLOMITE, ECHINOID,

680.0- 700.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, CALCILUTITE MATRIX, 05% QUARTZ SAND,

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700.0- 710.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, CALCILUTITE MATRIX, 10% QUARTZ SAND,

710.0- 720.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, ECHINOID,

LEPIDOCYCLINA SP.

720.0- 725.0 CLAY, YELLOWISH GRAY TO LIGHT OLIVE GRAY, MODERATE INDURATION, CLAY MATRIX, CALCILUTITE MATRIX, 01% QUARTZ SAND,

CALCAREOUS CLAY

725.0- 735.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, ECHINOID,

TYPICAL OCALA (CRYSTAL RIVER)

735.0- 745.0 AS ABOVE,

745.0- 755.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

ABUNDANT LEPIDOCYCLINA SP.

755.0- 765.0 AS ABOVE,

765.0- 775.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

CONTAINS LEPIDOCYCLINA SP.

775.0- 785.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

ABUNDANT FORAMINIFERA, SOME UNIDENTIFIABLE LEPIDOCYCLINA SP. HETEROSTEGINA OCALANA

785.0- 970.0 AS ABOVE,

970.0- 980.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

ABUNDANT HETEROSTEGINA OCALANA

980.0- 1000.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, CALCILUTITE MATRIX, CHALKY, BENTHONIC FORAMINIFERA,

OPERCULINOIDES (QUESTIONABLE) HETEROSTEGINA

1000.0- 1010.0 AS ABOVE,

1010.0- 1020.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, CALCILUTITE MATRIX, CHALKY, BENTHONIC FORAMINIFERA, OSTRACODS, ECHINOID,

1020.0- 1030.0 AS ABOVE,

1030.0- 1040.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 03% QUARTZ SAND, CHALKY, BENTHONIC FORAMINIFERA, ECHINOID,

1040.0- 1050.0 AS ABOVE,

1050.0- 1060.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

FIRST OCCURRENCE OF DICTYOCONUS COOKEI

1060.0- 1070.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 01% QUARTZ SAND, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

ABUNDANT CONES

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1070.0- 1080.0 AS ABOVE,

1080.0- 1090.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, BENTHONIC FORAMINIFERA, ECHINOID, OSTRACODS, BRYOZOA,

CONES FEW IN NUMBER

1090.0- 1130.0 AS ABOVE,

1130.0- 1140.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS, 70% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 01% DOLOMITE, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

1140.0- 1150.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

1150.0- 1160.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 01% QUARTZ SAND, 05% IRON STAIN, 01% DOLOMITE, BENTHONIC FORAMINIFERA, ECHINOID,

NUMEROUS CONES

1160.0- 1170.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 03% QUARTZ SAND, 15% IRON STAIN, 01% DOLOMITE, BENTHONIC FORAMINIFERA, ECHINOID,

1170.0- 1180.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 01% QUARTZ SAND, 05% IRON STAIN, 05% DOLOMITE, BENTHONIC FORAMINIFERA, ECHINOID,

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1180.0- 1190.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

1190.0- 1240.0 AS ABOVE,

1240.0- 1250.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 10% IRON STAIN, BENTHONIC FORAMINIFERA,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W- 9129

OSCEOLA CO. T32S R34E SEC 06C N W
TOTAL DEPTH- 677 FT. ELEV.- 70 FT. SAMPLES- 0- 677 FT.
COMPLETED- . . DEPTH WORKED 677 FT.

WELL NAME-
HORC
REMARKS-
WORKED BY M.H.SHAFIE, APRIL 26, 1976
RECODED BY JON E. SHAW, SFWMD, APRIL 14, 1982

HYDROGEOLOGIC UNITS

0.0- 250.0 SHALLOW AQUIFER SYSTEM
250.0- 360.0 HAWTHORN CONFINING BEDS
360.0- 677.0 FLORIDAN AQUIFER SYSTEM

STRATIGRAPHIC FORMATIONS -

0.0- 250.0 UNDIFFERENTIATED SAND, CLAY AND SHELLS
250.0- 360.0 HAWTHORN FORMATION
360.0- 440.0 OCALA GROUP
440.0- 677.0 AVON PARK LIMESTONE

LITHOLOGIC LOG
W- 9129 . OSCEOLA CO. T32S, R34E, SEC 06C

0.0- 10.0 SAND, WHITE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, IRON CEMENT, 05% CLAY, 02% PHOSPHATIC SAND,

10.0- 20.0 SAND, WHITE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 02% PHOSPHATIC SAND,

20.0- 30.0 SAND, VERY LIGHT ORANGE, 30% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, IRON CEMENT, 02% CLAY, 03% PHOSPHATIC SAND,

30.0- 40.0 SAND, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, IRON CEMENT, 75% CLAY, 02% PHOSPHATIC SAND,

40.0- 50.0 SAND, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO VERY COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 03% CLAY, 02% PHOSPHATIC SAND,

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50.0- 60.0 SAND, VERY LIGHT ORANGE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 02% PHOSPHATIC SAND, 01% HEAVY MINERALS,

60.0- 70.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, 20% QUARTZ SAND, 05% PHOSPHATIC SAND, MOLLUSKS, BRYOZOA, FOSSIL FRAGMENTS,

70.0- 80.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, 20% QUARTZ SAND, 05% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

80.0- 90.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, 20% QUARTZ SAND, 05% PHOSPHATIC SAND, MOLLUSKS, BRYOZOA, FOSSIL FRAGMENTS,

90.0- 100.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, 25% QUARTZ SAND, 05% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

100.0- 110.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, 20% QUARTZ SAND, 03% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

110.0- 120.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, 20% QUARTZ SAND, 03% PHOSPHATIC SAND, MOLLUSKS, BRYOZOA, FOSSIL FRAGMENTS,

120.0- 130.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 20% PHOSPHATIC SAND, MOLLUSKS, BRYOZOA,

130.0- 140.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 15% PHOSPHATIC SAND, MOLLUSKS,

140.0- 150.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 12% PHOSPHATIC SAND, MOLLUSKS,

150.0- 160.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 12% PHOSPHATIC SAND, MOLLUSKS, BRYOZOA,

160.0- 170.0 SHELL BED, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 10% QUARTZ SAND, 02% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

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170.0- 180.0 SHELL BED, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 10% QUARTZ SAND, 02% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

180.0- 190.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 04% CLAY, 12% PHOSPHATIC SAND, MOLLUSKS, BRYOZOA,

190.0- 200.0 SAND, LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 15% PHOSPHATIC SAND, MOLLUSKS,

200.0- 210.0 SAND, LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 15% PHOSPHATIC SAND, MOLLUSKS,

210.0- 220.0 SAND, LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 12% PHOSPHATIC SAND, MOLLUSKS,

220.0- 230.0 SAND, LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 12% PHOSPHATIC SAND, MOLLUSKS,

230.0- 240.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 20% QUARTZ SAND, 04% PHOSPHATIC SAND, MOLLUSKS, BRYOZOA, FOSSIL FRAGMENTS, SHARK TEETH,

240.0- 250.0 SAND, VERY LIGHT ORANGE, 35% POROSITY, INTERGRANULAR, UNCONSOLIDATED, 05% PHOSPHATIC SAND, MOLLUSKS, BRYOZOA,

250.0- 260.0 DOLOMITE, VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, 20% QUARTZ SAND, 15% PHOSPHATIC SAND, MOLLUSKS,

260.0- 270.0 DOLOMITE, VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 10% QUARTZ SAND, 10% PHOSPHATIC SAND, 15% PHOSPHATIC GRAVEL, MOLLUSKS,

270.0- 280.0 DOLOMITE, VERY LIGHT ORANGE, 11% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 20% PHOSPHATIC SAND, 10% QUARTZ SAND, MOLLUSKS,

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280.0- 290.0 DOLOMITE, VERY LIGHT ORANGE, 11% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 30% PHOSPHATIC SAND, 10% QUARTZ SAND, MOLLUSKS, BRYOZOA,

290.0- 300.0 DOLOMITE, VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 25% PHOSPHATIC SAND, 10% QUARTZ SAND, MOLLUSKS,

300.0- 310.0 DOLOMITE, VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 20% PHOSPHATIC SAND, 10% QUARTZ SAND, MOLLUSKS,

310.0- 320.0 DOLOMITE, VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 25% PHOSPHATIC SAND, 10% QUARTZ SAND, MOLLUSKS,

320.0- 330.0 DOLOMITE, VERY LIGHT ORANGE, 08% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, 07% QUARTZ SAND, MOLLUSKS,

330.0- 340.0 DOLOMITE, VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, 15% PHOSPHATIC SAND, 10% QUARTZ SAND, MOLLUSKS,

340.0- 350.0 DOLOMITE, VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, 20% PHOSPHATIC SAND, 15% QUARTZ SAND, MOLLUSKS, SHARK TEETH,

350.0- 360.0 DOLOMITE, WHITE, 08% POROSITY, INTERCRYSTALLINE, 10-50% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, 07% QUARTZ SAND, MOLLUSKS,

360.0- 370.0 DOLOMITE, WHITE, 08% POROSITY, INTERCRYSTALLINE, 10-50% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, 15% LIMESTONE, BENTHONIC FORAMINIFERA, MOLLUSKS,

LEPIDOCYCLINA SP., OPERCULINOIDES SP.

370.0- 380.0 LIMESTONE, WHITE, 08% POROSITY, INTERGRANULAR, MOLDIC, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 30% DOLOMITE, BENTHONIC FORAMINIFERA, MOLLUSKS,

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380.0- 390.0 LIMESTONE, WHITE, 08% POROSITY, INTERGRANULAR, MOLDIC, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: COARSE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 30% DOLOMITE, BENTHONIC FORAMINIFERA, MOLLUSKS, FOSSIL FRAGMENTS,

390.0- 400.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, MOLDIC, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: COARSE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 10% DOLOMITE, BENTHONIC FORAMINIFERA, MOLLUSKS,

400.0- 410.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: COARSE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

410.0- 420.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, MOLDIC, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

420.0- 430.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, MOLDIC, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

430.0- 440.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 05% SPAR, BENTHONIC FORAMINIFERA, MOLLUSKS,

440.0- 450.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 05% SPAR, BENTHONIC FORAMINIFERA, MOLLUSKS, CONES,

DICTYOCONUS COOKEI

450.0- 460.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 03% SPAR, CONES, BENTHONIC FORAMINIFERA,

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460.0- 470.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

470.0- 480.0 LIMESTONE, WHITE, 08% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

480.0- 490.0 LIMESTONE, WHITE, 07% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

490.0- 500.0 LIMESTONE, WHITE, 07% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA,

500.0- 510.0 LIMESTONE, WHITE, 05% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 70% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

510.0- 520.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

520.0- 530.0 LIMESTONE, WHITE, 09% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS, FOSSIL MOLDS,

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530.0- 540.0 LIMESTONE, WHITE, 08% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

540.0- 550.0 DOLOMITE, VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, CONES, BENTHONIC FORAMINIFERA,

550.0- 560.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

560.0- 570.0 LIMESTONE, VERY LIGHT ORANGE, 08% POROSITY, INTERGRANULAR, MOLDIC, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 30% SPAR, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA,

570.0- 580.0 LIMESTONE, VERY LIGHT ORANGE, 08% POROSITY, INTERGRANULAR, MOLDIC, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 30% SPAR, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA,

580.0- 590.0 LIMESTONE, WHITE, 09% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 05% SPAR, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS, FOSSIL MOLDS,

590.0- 600.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 03% SPAR, CONES, BENTHONIC FORAMINIFERA,

600.0- 610.0 LIMESTONE, WHITE, 08% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

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610.0- 620.0 LIMESTONE, WHITE, 08% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CONES, BENTHONIC FORAMINIFERA,

620.0- 630.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

630.0- 640.0 LIMESTONE, WHITE, 11% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

640.0- 650.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

650.0- 660.0 LIMESTONE, WHITE, 11% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

660.0- 670.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

670.0- 677.0 LIMESTONE, WHITE, 09% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W- 9130

OSCEOLA CO. T32S R33E SEC 03 A N W
TOTAL DEPTH- 634 FT. ELEV.- 68 FT. SAMPLES- 0- 634 FT.
COMPLETED- . . DEPTH WORKED 634 FT.

WELL NAME-
HORC
REMARKS-
WORKED BY M.H. SHAFIE
RECODED BY JON E. SHAW

HYDROGEOLOGIC UNITS

0.0- 130.0 SHALLOW AQUIFER SYSTEM
130.0- 300.0 HAWTHORN CONFINING BEDS
300.0- 634.0 FLORIDAN AQUIFER SYSTEM

STRATIGRAPHIC FORMATIONS -

0.0- 240.0 UNDIFFERENTIATED SAND, CLAY AND SHELLS
240.0- 320.0 HAWTHORN FORMATION
320.0- 400.0 OCALA GROUP
400.0- 634.0 AVON PARK LIMESTONE

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0.0- 10.0 SAND, VERY LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 02% PHOSPHATIC SAND, 02% HEAVY MINERALS, 01% IRON STAIN,

10.0- 20.0 SAND, VERY LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 02% PHOSPHATIC SAND, 02% HEAVY MINERALS, 01% IRON STAIN,

20.0- 30.0 SAND, VERY LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 02% PHOSPHATIC SAND, 02% HEAVY MINERALS,

30.0- 40.0 SAND, VERY LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 05% PHOSPHATIC SAND, 02% HEAVY MINERALS,

40.0- 50.0 SHELL BED, WHITE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 15% QUARTZ SAND, 03% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, BRYOZOA, FOSSIL FRAGMENTS,

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50.0- 60.0 SHELL BED, WHITE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 15% QUARTZ SAND, 03% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

60.0- 70.0 SHELL BED, WHITE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 15% QUARTZ SAND, 03% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

70.0- 80.0 SHELL BED, WHITE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 20% QUARTZ SAND, 04% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, BRYOZOA, FOSSIL FRAGMENTS,

80.0- 90.0 SHELL BED, WHITE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 20% QUARTZ SAND, 04% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

90.0- 100.0 SAND, WHITE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 08% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, BRYOZOA,

100.0- 110.0 SAND, WHITE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 20% QUARTZ SAND, 05% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

110.0- 120.0 SAND, WHITE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 20% QUARTZ SAND, 06% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

120.0- 130.0 SAND, WHITE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 25% QUARTZ SAND, 08% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

130.0- 140.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 12% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS,

140.0- 150.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 14% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS,

150.0- 160.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 15% PHOSPHATIC SAND, 25% PHOSPHATIC GRAVEL, SHARK TEETH, MOLLUSKS, BRYOZOA,

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160.0- 170.0 SHELL BED, WHITE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 15% QUARTZ SAND, 10% PHOSPHATIC SAND, DOLOMITIC,

170.0- 190.0 SANDSTONE, POOR INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, 15% QUARTZ SAND, DOLOMITIC, MOLLUSKS,

190.0- 200.0 SHELL BED, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 15% QUARTZ SAND, 10% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

200.0- 240.0 SHELL BED, WHITE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 20% PHOSPHATIC SAND, 15% QUARTZ SAND, DOLOMITIC, MOLLUSKS,

240.0- 250.0 DOLOMITE, VERY LIGHT ORANGE, 11% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, FIBROUS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 15% PHOSPHATIC SAND, 15% QUARTZ SAND, MOLLUSKS,

250.0- 260.0 DOLOMITE, VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 20% PHOSPHATIC SAND, 25% QUARTZ SAND, MOLLUSKS,

260.0- 270.0 DOLOMITE, VERY LIGHT ORANGE, 09% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 15% PHOSPHATIC SAND, 20% QUARTZ SAND, MOLLUSKS,

270.0- 280.0 DOLOMITE, VERY LIGHT ORANGE, 08% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, 15% QUARTZ SAND, MOLLUSKS,

280.0- 290.0 DOLOMITE, VERY LIGHT ORANGE, 08% POROSITY, INTERCRYSTALLINE, 10-50% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, 15% QUARTZ SAND, MOLLUSKS,

290.0- 300.0 DOLOMITE, VERY LIGHT ORANGE, 08% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, 15% QUARTZ SAND, MOLLUSKS,

300.0- 310.0 SHELL BED, WHITE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 07% PHOSPHATIC SAND, 12% QUARTZ SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

310.0- 320.0 DOLOMITE, WHITE, 08% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 09% PHOSPHATIC SAND, 15% QUARTZ SAND, MOLLUSKS,

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320.0- 330.0 DOLOMITE, WHITE, 12% POROSITY, INTERCRYSTALLINE, MOLDIC, 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, BENTHONIC FORAMINIFERA, MOLLUSKS,

OPERCULINOIDES SP., LEPIDOCYCLINA SP.

330.0- 340.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: BIOGENIC, OOLITE CAST, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

340.0- 350.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA,

350.0- 360.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA,

360.0- 370.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA,

370.0- 380.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA,

380.0- 390.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA,

390.0- 400.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA,

400.0- 410.0 LIMESTONE, VERY LIGHT ORANGE, 14% POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

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DICTYOCONUS COOKEI

410.0- 420.0 LIMESTONE, VERY LIGHT ORANGE, 14% POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: BIOGENIC, OOLITE CAST, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

420.0- 430.0 LIMESTONE, VERY LIGHT ORANGE, 14% POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

430.0- 440.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA,

440.0- 450.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

450.0- 460.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

460.0- 470.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

470.0- 480.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

480.0- 490.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

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490.0- 500.0 AS ABOVE,

500.0- 510.0 LIMESTONE, VERY LIGHT ORANGE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

510.0- 520.0 LIMESTONE, VERY LIGHT ORANGE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES,

520.0- 530.0 LIMESTONE, VERY LIGHT ORANGE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

530.0- 540.0 LIMESTONE, VERY LIGHT ORANGE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES,

540.0- 550.0 LIMESTONE, VERY LIGHT ORANGE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

550.0- 560.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

560.0- 570.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, MOLLUSKS,

570.0- 580.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, MOLLUSKS, BENTHONIC FORAMINIFERA,

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580.0- 590.0 LIMESTONE, VERY LIGHT ORANGE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

590.0- 600.0 AS ABOVE,

600.0- 610.0 LIMESTONE, VERY LIGHT ORANGE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES,

610.0- 620.0 LIMESTONE, VERY LIGHT ORANGE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

620.0- 630.0 LIMESTONE, VERY LIGHT ORANGE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES,

630.0- 634.0 LIMESTONE, VERY LIGHT ORANGE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W- 9127

OSCEOLA CO. T32S R34E SEC 30DA N W
TOTAL DEPTH- 697 FT. ELEV.- 60 FT. SAMPLES- 0- 697 FT.
COMPLETED- . . DEPTH WORKED 697 FT.

WELL NAME-
HORC
REMARKS-
WORKED BY M.H. SHAFIE, APRIL 30, 1976
RECODED BY JON E. SHAW, SFWMD, MARCH 16, 1982

HYDROGEOLOGIC UNITS

0.0- 230.0 SHALLOW AQUIFER SYSTEM
230.0- 340.0 HAWTHORN CONFINING BEDS
340.0- 697.0 FLORIDAN AQUIFER SYSTEM

STRATIGRAPHIC FORMATIONS -

0.0- 230.0 UNDIFFERENTIATED SAND, CLAY AND SHELLS
230.0- 350.0 HAWTHORN FORMATION
350.0- 410.0 OCALA GROUP
410.0- 697.0 AVON PARK LIMESTONE

LITHOLOGIC LOG
W- 9127 . OSCEOLA CO. T32S, R34E, SEC 30DA

0.0- 10.0 SAND, VERY LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 03% PHOSPHATIC SAND, 01% IRON STAIN,

10.0- 20.0 SAND, VERY LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 02% PHOSPHATIC SAND, 01% IRON STAIN,

20.0- 30.0 SAND, VERY LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 02% PHOSPHATIC SAND, 01% IRON STAIN,

30.0- 40.0 SAND, VERY LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 04% PHOSPHATIC SAND, 02% IRON STAIN,

40.0- 50.0 SAND, VERY LIGHT GRAY, 27% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 04% CLAY, 03% PHOSPHATIC SAND, 02% IRON STAIN,

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50.0- 60.0 SAND, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 05% CLAY, 06% PHOSPHATIC SAND, 02% IRON STAIN,

60.0- 70.0 SAND, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 06% PHOSPHATIC SAND, 01% IRON STAIN, MOLLUSKS,

70.0- 80.0 SAND, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 03% CLAY, 05% PHOSPHATIC SAND, MOLLUSKS, BENTHONIC FORAMINIFERA,

80.0- 90.0 SAND, LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 05% PHOSPHATIC SAND, MOLLUSKS, BRYOZOA,

90.0- 100.0 SAND, LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 05% PHOSPHATIC SAND, MOLLUSKS, BRYOZOA,

100.0- 110.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 05% QUARTZ SAND, MOLLUSKS, BRYOZOA, FOSSIL FRAGMENTS,

110.0- 120.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 15% QUARTZ SAND, 02% PHOSPHATIC SAND, MOLLUSKS, BRYOZOA, FOSSIL FRAGMENTS,

120.0- 130.0 SAND, LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 20% PHOSPHATIC SAND, 01% IRON STAIN, MOLLUSKS, FOSSIL FRAGMENTS,

130.0- 140.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 20% PHOSPHATIC SAND, MOLLUSKS, BRYOZOA, FOSSIL FRAGMENTS,

140.0- 150.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 05% CLAY, 20% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

ABUNDANT SHELL FRAGMENTS

LITHOLOGIC LOG
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150.0- 160.0 SAND, LIGHT GRAY TO VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 20% PHOSPHATIC SAND, 01% IRON STAIN, MOLLUSKS, BRYOZOA, FOSSIL FRAGMENTS,

160.0- 170.0 SAND, LIGHT GRAY TO VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 15% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

170.0- 180.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 15% PHOSPHATIC SAND, MOLLUSKS,

180.0- 190.0 SHELL BED, VERY LIGHT ORANGE TO LIGHT GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, 06% QUARTZ SAND, 10% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

190.0- 200.0 SHELL BED, VERY LIGHT ORANGE TO LIGHT GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, 05% CLAY, 15% QUARTZ SAND, 03% PHOSPHATIC SAND, MOLLUSKS, BRYOZOA, FOSSIL FRAGMENTS,

200.0- 210.0 SHELL BED, VERY LIGHT ORANGE TO LIGHT GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, SILICIC CEMENT, CALCILUTITE MATRIX, DOLOMITE CEMENT, 15% QUARTZ SAND, 10% PHOSPHATIC SAND, MOLLUSKS, BRYOZOA, FOSSIL FRAGMENTS,

210.0- 220.0 SHELL BED, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 25% QUARTZ SAND, 05% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

220.0- 230.0 SHELL BED, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 20% QUARTZ SAND, 15% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

230.0- 240.0 DOLOMITE, LIGHT OLIVE GRAY, 08% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, 25% PHOSPHATIC SAND, 12% QUARTZ SAND, MOLLUSKS, SHARK TEETH,

240.0- 250.0 DOLOMITE, LIGHT OLIVE GRAY, 07% POROSITY, INTERCRYSTALLINE, 90-100% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, 15% PHOSPHATIC SAND, 10% QUARTZ SAND, MOLLUSKS,

250.0- 260.0 DOLOMITE, LIGHT OLIVE GRAY, 08% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 25% PHOSPHATIC SAND, 10% QUARTZ SAND, MOLLUSKS,

LITHOLOGIC LOG
W- 9127 . OSCEOLA CO. T32S, R34E, SEC 30DA

260.0- 270.0 DOLOMITE, LIGHT OLIVE GRAY, 08% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 20% PHOSPHATIC SAND, 10% QUARTZ SAND, MOLLUSKS,

270.0- 280.0 DOLOMITE, LIGHT OLIVE GRAY, 08% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 20% PHOSPHATIC SAND, 10% QUARTZ SAND, MOLLUSKS, FOSSIL FRAGMENTS,

280.0- 290.0 DOLOMITE, VERY LIGHT ORANGE, 06% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 15% PHOSPHATIC SAND, 07% QUARTZ SAND, MOLLUSKS,

290.0- 300.0 DOLOMITE, VERY LIGHT ORANGE, 08% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 20% PHOSPHATIC SAND, 10% QUARTZ SAND, MOLLUSKS,

300.0- 310.0 DOLOMITE, VERY LIGHT ORANGE, 07% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, 05% QUARTZ SAND, MOLLUSKS,

310.0- 320.0 LIMESTONE, VERY LIGHT GRAY, 10% POROSITY, INTERGRANULAR, MOLDIC, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 12% PHOSPHATIC SAND, 08% QUARTZ SAND, DOLOMITIC, MOLLUSKS,

320.0- 330.0 LIMESTONE, VERY LIGHT GRAY, 09% POROSITY, INTERGRANULAR, MOLDIC, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 12% PHOSPHATIC SAND, 08% QUARTZ SAND, MOLLUSKS,

330.0- 340.0 LIMESTONE, VERY LIGHT GRAY, 10% POROSITY, INTERGRANULAR, MOLDIC, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 10% PHOSPHATIC SAND, 08% QUARTZ SAND, MOLLUSKS,

340.0- 350.0 DOLOMITE, GRAYISH BROWN, 07% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, MOLLUSKS,

LITHOLOGIC LOG
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350.0- 360.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 10% QUARTZ SAND, 03% PHOSPHATIC SAND, DOLOMITIC, BENTHONIC FORAMINIFERA, MOLLUSKS,

LEPIDOCYCLINA SP., OPERCULINOIDES SP.

360.0- 370.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, DOLOMITIC, BENTHONIC FORAMINIFERA, MOLLUSKS,

370.0- 380.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

380.0- 390.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

390.0- 410.0 AS ABOVE,

410.0- 420.0 LIMESTONE, WHITE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

DICTYOCONUS COOKEI

420.0- 430.0 LIMESTONE, WHITE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

430.0- 440.0 LIMESTONE, WHITE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

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440.0- 450.0 LIMESTONE, VERY LIGHT ORANGE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO VERY COARSE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS, BRYOZOA,

450.0- 460.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS, BRYOZOA,

460.0- 470.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

470.0- 480.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

480.0- 490.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

490.0- 500.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

500.0- 510.0 LIMESTONE, VERY LIGHT ORANGE, 09% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

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510.0- 520.0 LIMESTONE, VERY LIGHT ORANGE, 11% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

520.0- 530.0 LIMESTONE, VERY LIGHT ORANGE, 11% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS, BRYOZOA,

530.0- 540.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA,

540.0- 550.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, MOLDIC, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

550.0- 560.0 LIMESTONE, VERY LIGHT ORANGE, 08% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

560.0- 570.0 LIMESTONE, VERY LIGHT ORANGE, 08% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

570.0- 580.0 LIMESTONE, VERY LIGHT ORANGE, 08% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

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580.0- 590.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

590.0- 600.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

600.0- 610.0 LIMESTONE, VERY LIGHT ORANGE, 09% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

610.0- 620.0 LIMESTONE, VERY LIGHT ORANGE, 08% POROSITY, INTERGRANULAR, PIN POINT VUGS, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

620.0- 630.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

630.0- 640.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

640.0- 650.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

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650.0- 660.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

660.0- 670.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

670.0- 680.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA,

680.0- 690.0 LIMESTONE, VERY LIGHT ORANGE, 09% POROSITY, INTERGRANULAR, PIN POINT VUGS, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA,

690.0- 697.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W- 9145

OSCEOLA CO. T31S R33E SEC 31 D 27 43 59 N 81 03 29 W
TOTAL DEPTH- 510 FT. ELEV.- 68 FT. SAMPLES- 0- 510 FT.
COMPLETED- . . DEPTH WORKED 510 FT.

WELL NAME-
HORC
REMARKS-
WORKED BY M.H. SHAFIE
GOOD SAMPLES UNWASHED
RECODED BY JON E. SHAW, SFWMD, MARCH 16, 1982

HYDROGEOLOGIC UNITS

0.0- 120.0 SHALLOW AQUIFER SYSTEM
120.0- 280.0 HAWTHORN CONFINING BEDS
280.0- 510.0 FLORIDAN AQUIFER SYSTEM

STRATIGRAPHIC FORMATIONS -

0.0- 210.0 UNDIFFERENTIATED SAND, CLAY AND SHELLS
210.0- 310.0 HAWTHORN FORMATION
310.0- 410.0 OCALA GROUP
410.0- 510.0 AVON PARK LIMESTONE

LITHOLOGIC LOG
W- 9145 . OSCEOLA CO. T31S, R33E, SEC 31 D

0.0- 10.0 SAND, GRAYISH BROWN, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 05% CLAY, 02% PHOSPHATIC SAND,

10.0- 20.0 SAND, GRAYISH BROWN, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 06% CLAY, 02% PHOSPHATIC SAND, 02% HEAVY MINERALS,

20.0- 30.0 SAND, DARK YELLOWISH BROWN, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 02% PHOSPHATIC SAND, 05% CLAY, 02% IRON STAIN,

30.0- 40.0 SAND, DARK YELLOWISH BROWN, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 02% PHOSPHATIC SAND, 02% IRON STAIN, 05% CLAY,

40.0- 50.0 SAND, DARK YELLOWISH BROWN, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 04% PHOSPHATIC SAND, 06% CLAY,

LITHOLOGIC LOG
W- 9145 . OSCEOLA CO. T31S, R33E, SEC 31 0

50.0- 60.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 05% CLAY, 30% QUARTZ SAND, 02% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

60.0- 70.0 SHELL BED, VERY LIGHT GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 20% QUARTZ SAND, 03% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

70.0- 80.0 SHELL BED, VERY LIGHT GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 05% CLAY, 20% QUARTZ SAND, 03% PHOSPHATIC SAND, MOLLUSKS,

80.0- 90.0 SHELL BED, VERY LIGHT GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 05% CLAY, 20% QUARTZ SAND, 02% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

90.0- 100.0 SHELL BED, VERY LIGHT GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 05% CLAY, 20% QUARTZ SAND, 03% PHOSPHATIC SAND, MOLLUSKS,

100.0- 110.0 SHELL BED, VERY LIGHT GRAY TO LIGHT GRAYISH RED, 51% POROSITY, POOR INDURATION, CLAY MATRIX, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 06% CLAY, 15% QUARTZ SAND, 03% PHOSPHATIC SAND, MOLLUSKS,

110.0- 120.0 AS ABOVE,

120.0- 130.0 SAND, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 07% CLAY, 12% PHOSPHATIC SAND, MOLLUSKS,

130.0- 140.0 SAND, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 06% CLAY, 08% PHOSPHATIC SAND, MOLLUSKS,

140.0- 150.0 SAND, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 10% PHOSPHATIC SAND, 06% CLAY, MOLLUSKS, FOSSIL FRAGMENTS,

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150.0- 160.0 SAND, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO VERY COARSE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 05% CLAY, 05% PHOSPHATIC SAND, 35% PHOSPHATIC GRAVEL, MOLLUSKS,

160.0- 170.0 SAND, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 06% CLAY, 08% PHOSPHATIC SAND, MOLLUSKS,

170.0- 180.0 SAND, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 06% CLAY, 10% PHOSPHATIC SAND, MOLLUSKS,

180.0- 190.0 SAND, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 05% CLAY, 10% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

190.0- 200.0 SAND, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 06% CLAY, 07% PHOSPHATIC SAND, MOLLUSKS,

200.0- 210.0 SAND, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO VERY COARSE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 06% CLAY, 04% PHOSPHATIC SAND, 30% PHOSPHATIC GRAVEL, MOLLUSKS,

210.0- 220.0 DOLOMITE, VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 20% PHOSPHATIC SAND, 12% QUARTZ SAND, MOLLUSKS,

220.0- 230.0 SAND, LIGHT OLIVE GRAY, 20% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 20% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS,

230.0- 240.0 DOLOMITE, LIGHT OLIVE GRAY, 17% POROSITY, INTERCRYSTALLINE, 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, POOR INDURATION, DOLOMITE CEMENT, 10% QUARTZ SAND, 15% PHOSPHATIC SAND, MOLLUSKS,

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240.0- 250.0 DOLOMITE, VERY LIGHT ORANGE, 16% POROSITY, INTERCRYSTALLINE. 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, MODERATE INDURATION, DOLOMIT CEMENT, 10% QUARTZ SAND, 12% PHOSPHATIC SAND, MOLLUSKS,

250.0- 260.0 DOLOMITE, VERY LIGHT ORANGE, 16% POROSITY, INTERCRYSTALLINE. 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, MODERATE INDURATION, DOLOMIT CEMENT, 10% QUARTZ SAND, 15% PHOSPHATIC SAND, MOLLUSKS,

260.0- 270.0 DOLOMITE, VERY LIGHT ORANGE, 16% POROSITY, INTERCRYSTALLINE. 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, MODERATE INDURATION, DOLOMITI CEMENT, 08% QUARTZ SAND, 15% PHOSPHATIC SAND, 02% CHERT, MOLLUSKS,

270.0- 280.0 DOLOMITE, VERY LIGHT ORANGE, 15% POROSITY, INTERCRYSTALLINE. 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, MODERATE INDURATION, DOLOMITE CEMENT, 04% QUARTZ SAND, 10% PHOSPHATIC SAND, MOLLUSKS,

280.0- 290.0 DOLOMITE, VERY LIGHT ORANGE, 08% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, 02% QUARTZ SAND, 05% PHOSPHATIC SAND, SHARK TEETH,

290.0- 300.0 DOLOMITE, VERY LIGHT ORANGE, 08% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, 02% QUARTZ SAND, 04% PHOSPHATIC SAND, 10% LIMESTONE, MOLLUSKS,

300.0- 310.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 03% QUARTZ SAND, 05% PHOSPHATIC SAND, MOLLUSKS,

310.0- 320.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, MOLDIC, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 10% QUARTZ SAND, 03% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, SHARK TEETH,

320.0- 330.0 DOLOMITE, VERY LIGHT ORANGE, 09% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, 07% QUARTZ SAND, BENTHONIC FORAMINIFERA, MOLLUSKS,

LEPIDOCYCLINA SP., OPERCULINOIDES SP.

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330.0- 340.0 LIMESTONE, WHITE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 83% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

340.0- 370.0 AS ABOVE,

370.0- 380.0 LIMESTONE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

380.0- 390.0 LIMESTONE, WHITE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS, FOSSIL FRAGMENTS,

390.0- 400.0 LIMESTONE, WHITE, 13% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: FINE TO CRYPTOCRYSTALLINE, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

400.0- 410.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

410.0- 420.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

DICTYOCONUS COOKEI.

420.0- 430.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: CRYPTOCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 02% SPAR, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

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430.0- 440.0 LIMESTONE, WHITE, 03% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

440.0- 450.0 LIMESTONE, WHITE, 09% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

450.0- 460.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 83% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

460.0- 470.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 83% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

470.0- 480.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 83% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

480.0- 490.0 LIMESTONE, WHITE, 08% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 83% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

490.0- 500.0 LIMESTONE, WHITE, 09% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

500.0- 510.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W- 9151

OSCEOLA CO. T31S R32E SEC 05AA 27 48 40 N 81 08 30 W
TOTAL DEPTH- 610 FT. ELEV.- 60 FT. SAMPLES- 0- 610 FT.
COMPLETED- . . DEPTH WORKED 610 FT.

WELL NAME-
HORC
REMARKS-
WORKED BY H. SHAFIE
RECODED BY JON E. SHAW, SFWMD, APRIL 14, 1982

STRATIGRAPHIC FORMATIONS -

0.0-	160.0	UNDIFFERENTIATED SAND, CLAY AND SHELLS
160.0-	300.0	HAWTHORN FORMATION
300.0-	390.0	OCALA GROUP
390.0-	610.0	AVON PARK LIMESTONE

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0.0- 10.0 SAND, VERY LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 02% CLAY, 02% PHOSPHATIC SAND, 01% IRON STAIN,

10.0- 20.0 SAND, VERY LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 02% CLAY, 01% PHOSPHATIC SAND, 01% IRON STAIN,

20.0- 30.0 SAND, VERY LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 02% CLAY, 01% PHOSPHATIC SAND, 01% IRON STAIN, DOLOMITIC,

30.0- 40.0 SAND, VERY LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 03% CLAY, 03% PHOSPHATIC SAND, 05% HEAVY MINERALS,

40.0- 50.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 30% QUARTZ SAND, 02% PHOSPHATIC SAND, 03% HEAVY MINERALS, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

50.0- 60.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 10% QUARTZ SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

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60.0- 70.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 10% QUARTZ SAND, MOLLUSKS, FOSSIL FRAGMENTS,

70.0- 80.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 25% QUARTZ SAND, 03% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

80.0- 90.0 SAND, LIGHT GRAY TO VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, 01% IRON STAIN, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

90.0- 100.0 SAND, LIGHT GRAY TO VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: MEDIUM TO FINE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, 01% IRON STAIN, DOLOMITIC, MOLLUSKS,

100.0- 110.0 SHELL BED, LIGHT GRAY, 22% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 10% QUARTZ SAND, 30% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS,

110.0- 120.0 AS ABOVE,

120.0- 130.0 SHELL BED, VERY LIGHT GRAY, 34% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 15% QUARTZ SAND, 05% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

130.0- 140.0 SHELL BED, VERY LIGHT GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 20% QUARTZ SAND, 05% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

140.0- 150.0 SAND, LIGHT GRAY TO VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS,

150.0- 160.0 SHELL BED, LIGHT GRAY TO VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 20% PHOSPHATIC SAND, 05% QUARTZ SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS, SHARK TEETH,

160.0- 170.0 SAND, LIGHT GRAY TO WHITE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 40% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, FOSSIL MOLDS,

170.0- 180.0 DOLOMITE, VERY LIGHT ORANGE, 18% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, 10% QUARTZ SAND, MOLLUSKS,

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180.0- 200.0 DOLOMITE, VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, 25% PHOSPHATIC SAND, 20% QUARTZ SAND, MOLLUSKS,

200.0- 210.0 PHOSPHATE, DARK GRAY TO VERY LIGHT ORANGE, 15% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 10% QUARTZ SAND, 07% CHERT, MOLLUSKS,

210.0- 220.0 DOLOMITE, VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, 15% QUARTZ SAND, 10% PHOSPHATIC SAND, MOLLUSKS,

220.0- 240.0 NO SAMPLE,

240.0- 250.0 PHOSPHATE, DARK GRAY TO VERY LIGHT ORANGE, 15% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 10% QUARTZ SAND, 07% CHERT, MOLLUSKS, SHARK TEETH,

250.0- 260.0 DOLOMITE, VERY LIGHT ORANGE TO DARK GRAY, 10% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, POOR INDURATION, DOLOMITE CEMENT, 15% QUARTZ SAND, 30% PHOSPHATIC SAND, MOLLUSKS,

260.0- 270.0 DOLOMITE, VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, 15% QUARTZ SAND, 10% PHOSPHATIC SAND, MOLLUSKS, FOSSIL MOLDS,

270.0- 280.0 DOLOMITE, LIGHT GRAY, 11% POROSITY, INTERCRYSTALLINE, 90-100% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, 15% QUARTZ SAND, 07% PHOSPHATIC SAND, MOLLUSKS,

280.0- 300.0 NO SAMPLE,

300.0- 310.0 DOLOMITE, LIGHT OLIVE GRAY, 12% POROSITY, INTERCRYSTALLINE, 90-100% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 10% QUARTZ SAND, 05% PHOSPHATIC SAND, BENTHONIC FORAMINIFERA,

LEPIDOCYCLINA SP, OPERCULINOIDES SP.

310.0- 320.0 NO SAMPLE,

320.0- 330.0 LIMESTONE, WHITE, 13% POROSITY, INTERGRANULAR, MOLDIC, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

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330.0- 350.0 AS ABOVE,

350.0- 370.0 NO SAMPLE,

370.0- 380.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, MOLDIC, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA,

380.0- 390.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA,

390.0- 400.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

DICTYOCONUS COOKEI

400.0- 410.0 AS ABOVE,

410.0- 420.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, MOLLUSKS,

420.0- 430.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

430.0- 440.0 LIMESTONE, WHITE, 10% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

440.0- 450.0 LIMESTONE, 09% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

450.0- 470.0 AS ABOVE,

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470.0- 480.0 LIMESTONE, 09% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES,

480.0- 490.0 LIMESTONE, WHITE, 09% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX,

490.0- 500.0 LIMESTONE, WHITE, 11% POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES,

500.0- 510.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES,

510.0- 520.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

520.0- 530.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES,

530.0- 540.0 LIMESTONE, VERY LIGHT ORANGE, 12% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

540.0- 550.0 AS ABOVE,

550.0- 560.0 LIMESTONE, VERY LIGHT ORANGE, 11% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

560.0- 570.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

LITHOLOGIC LOG
W- 9151 . OSCEOLA CO. T31S, R32E, SEC 05AA

570.0- 580.0 AS ABOVE,

580.0- 590.0 DOLOMITE, VERY LIGHT ORANGE, 12% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, CONES, BENTHONIC FORAMINIFERA,

590.0- 600.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

600.0- 610.0 AS ABOVE,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W- 9156

OSCEOLA CO. T31S R32E SEC 34 D 27 44 09 N 81 06 28 W
TOTAL DEPTH- 690 FT. ELEV.- 62 FT. SAMPLES- 0- 690 FT.
COMPLETED- . . DEPTH WORKED 690 FT.

WELL NAME-
HORC
REMARKS-
WORKED BY M.H. SHAFIE 4-15-76
RECODED BY JON E. SHAW, SFWMD, MARCH 16, 1982

HYDROGEOLOGIC UNITS

0.0- 210.0 SHALLOW AQUIFER SYSTEM
210.0- 350.0 HAWTHORN CONFINING BEDS
350.0- 690.0 FLORIDAN AQUIFER SYSTEM

STRATIGRAPHIC FORMATIONS -

0.0- 270.0 UNDIFFERENTIATED SAND, CLAY AND SHELLS
270.0- 380.0 HAWTHORN FORMATION
380.0- 430.0 OCALA GROUP
430.0- 690.0 AVON PARK LIMESTONE

LITHOLOGIC LOG
W- 9156 . OSCEOLA CO. T31S, R32E, SEC 34 D

0.0- 40.0 NO SAMPLE,

40.0- 50.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 02% PHOSPHATIC SAND, 04% HEAVY MINERALS, DOLOMITIC,

50.0- 60.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 02% PHOSPHATIC SAND, 05% HEAVY MINERALS, DOLOMITIC,

60.0- 70.0 SAND, GRAYISH BROWN, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 05% CLAY, 01% PHOSPHATIC SAND, 03% HEAVY MINERALS,

70.0- 80.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 03% CLAY, 01% PHOSPHATIC SAND,

LITHOLOGIC LOG
W- 9156 . OSCEOLA CO. T31S, R32E, SEC 34 D

80.0- 90.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 08% PHOSPHATIC SAND, 03% CLAY,

90.0- 100.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 03% CLAY, 08% PHOSPHATIC SAND, 04% PHOSPHATIC GRAVEL,

100.0- 110.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, CLAY MATRIX, 04% CLAY, 06% PHOSPHATIC SAND, 05% PHOSPHATIC GRAVEL, MOLLUSKS,

110.0- 120.0 SAND, VERY LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 10% PHOSPHATIC SAND, 03% PHOSPHATIC GRAVEL, MOLLUSKS,

120.0- 130.0 SHELL BED, VERY LIGHT ORANGE TO LIGHT GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 05% PHOSPHATIC GRAVEL, 20% QUARTZ SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

130.0- 140.0 SHELL BED, LIGHT GRAY TO WHITE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 20% QUARTZ SAND, 04% PHOSPHATIC GRAVEL, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

140.0- 150.0 SHELL BED, LIGHT GRAY TO WHITE, 25% POROSITY, INTERGRANULAR POOR INDURATION, DOLOMITE CEMENT, 20% QUARTZ SAND, 05% PHOSPHATIC GRAVEL, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

150.0- 160.0 SHELL BED, VERY LIGHT GRAY, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 35% QUARTZ SAND, 05% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

160.0- 170.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 10% QUARTZ SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

170.0- 180.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 10% QUARTZ SAND, DOLOMITIC, MOLLUSKS,

180.0- 190.0 SHELL BED, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 12% QUARTZ SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

190.0- 200.0 SAND, VERY LIGHT ORANGE, 22% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 06% PHOSPHATIC SAND, DOLOMITIC, MOLLUSKS,

LITHOLOGIC LOG
W- 9156 . OSCEOLA CO. T31S, R32E, SEC 34 D

200.0- 210.0 SAND, VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 07% PHOSPHATIC SAND, 02% CHERT, DOLOMITIC, MOLLUSKS,

210.0- 220.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 03% PHOSPHATIC SAND, 03% CHERT, DOLOMITIC, MOLLUSKS,

220.0- 230.0 SAND, LIGHT OLIVE GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, 04% CHERT, DOLOMITIC, MOLLUSKS,

230.0- 240.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 18% PHOSPHATIC SAND, 02% CHERT, DOLOMITIC, MOLLUSKS,

240.0- 250.0 AS ABOVE,

250.0- 260.0 SAND, LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, 06% CHERT, DOLOMITIC, MOLLUSKS,

260.0- 270.0 SAND, VERY LIGHT GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, POOR INDURATION, DOLOMITE CEMENT, 06% PHOSPHATIC SAND, 03% CHERT, DOLOMITIC, MOLLUSKS,

270.0- 280.0 DOLOMITE, VERY LIGHT ORANGE, 12% POROSITY, INTERCRYSTALLINE, 90-100% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 30% PHOSPHATIC GRAVEL, 15% QUARTZ SAND, MOLLUSKS,

280.0- 290.0 DOLOMITE, VERY LIGHT ORANGE, 15% POROSITY, INTERCRYSTALLINE, 90-100% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 30% PHOSPHATIC GRAVEL, 10% QUARTZ SAND, 03% CHERT, SHARK TEETH, MOLLUSKS,

290.0- 300.0 PHOSPHATE, DARK GRAY, 20% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 20% QUARTZ SAND, 05% CHERT, DOLOMITIC, MOLLUSKS,

300.0- 310.0 DOLOMITE, DARK GRAY, 17% POROSITY, INTERCRYSTALLINE, 90-100% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, POOR INDURATION, DOLOMITE CEMENT, 30% PHOSPHATIC SAND, 10% QUARTZ SAND, 07% CHERT, MOLLUSKS, SHARK TEETH,

LITHOLOGIC LOG
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310.0- 320.0 DOLOMITE, VERY LIGHT ORANGE, 18% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, 15% PHOSPHATIC SAND, 10% QUARTZ SAND, MOLLUSKS,

320.0- 330.0 DOLOMITE, VERY LIGHT ORANGE, 09% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, 10% QUARTZ SAND, MOLLUSKS,

330.0- 340.0 DOLOMITE, VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 30% PHOSPHATIC SAND, 15% QUARTZ SAND,

340.0- 350.0 DOLOMITE, VERY LIGHT ORANGE, 09% POROSITY, INTERCRYSTALLINE, 90-100% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 20% QUARTZ SAND, 15% PHOSPHATIC SAND, MOLLUSKS,

350.0- 360.0 SHELL BED, WHITE, 25% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 15% PHOSPHATIC SAND, 05% QUARTZ SAND, DOLOMITIC, MOLLUSKS, FOSSIL FRAGMENTS,

360.0- 370.0 DOLOMITE, WHITE, 12% POROSITY, INTERCRYSTALLINE, 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 20% QUARTZ SAND, 15% PHOSPHATIC SAND, MOLLUSKS,

370.0- 380.0 SHELL BED, WHITE, 20% POROSITY, INTERGRANULAR, POOR INDURATION, DOLOMITE CEMENT, 12% QUARTZ SAND, 07% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

380.0- 410.0 LIMESTONE, WHITE, 17% POROSITY, INTERGRANULAR, MOLDIC, INTERCRYSTALLINE, GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

LEPIDOCYCLINA SP., OPERCULINOIDES SP.

410.0- 420.0 LIMESTONE, WHITE, 13% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, BENTHONIC FORAMINIFERA, MOLLUSKS,

420.0- 430.0 AS ABOVE,

430.0- 440.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

LITHOLOGIC LOG
W- 9156 . OSCEOLA CO. T31S, R32E, SEC 34 D

DICTYOCONUS COOKEI

440.0- 450.0 LIMESTONE, WHITE, 12% POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

450.0- 460.0 AS ABOVE,

460.0- 470.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

470.0- 480.0 AS ABOVE,

480.0- 490.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

490.0- 500.0 LIMESTONE, VERY LIGHT ORANGE, 09% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

500.0- 510.0 AS ABOVE,

510.0- 520.0 LIMESTONE, VERY LIGHT ORANGE, 09% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

DOLOMITE, 10% POROSITY, INTERCRYSTALLINE, 90-100% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, GOOD INDURATION, DOLOMITE CEMENT,

520.0- 530.0 LIMESTONE, VERY LIGHT ORANGE, 09% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

530.0- 540.0 AS ABOVE,

DOLOMITE, GRAYISH BROWN, 11% POROSITY, INTERCRYSTALLINE, 90-100% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, MODERATE INDURATION, DOLOMITE CEMENT, CONES, BENTHONIC FORAMINIFERA,

540.0- 550.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

550.0- 560.0 AS ABOVE,

560.0- 570.0 AS ABOVE,

570.0- 580.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

580.0- 590.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

590.0- 600.0 DOLOMITE, 11% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, CONES, BENTHONIC FORAMINIFERA,

600.0- 610.0 LIMESTONE, VERY LIGHT ORANGE, 08% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, MOLLUSKS,

610.0- 620.0 LIMESTONE, VERY LIGHT ORANGE, 09% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES,

620.0- 630.0 LIMESTONE, LIGHT GRAY, 07% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

LITHOLOGIC LOG
W- 9156 . OSCEOLA CO. T31S, R32E, SEC 34 D

630.0- 640.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA,

640.0- 650.0 LIMESTONE, VERY LIGHT ORANGE, 08% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

650.0- 660.0 LIMESTONE, VERY LIGHT ORANGE, 09% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, MOLLUSKS, BENTHONIC FORAMINIFERA,

660.0- 670.0 DOLOMITE, GRAYISH BROWN, 13% POROSITY, INTERCRYSTALLINE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS,

670.0- 680.0 LIMESTONE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, MOLLUSKS,

680.0- 690.0 LIMESTONE, LIGHT GRAY, 07% POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, SKELETAL, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W-11366

OSCEOLA CO. T29S R31E SEC 03 N W
TOTAL DEPTH- 540 FT. ELEV.- 67 FT. SAMPLES- 0- 540 FT.
COMPLETED- . . DEPTH WORKED 450 FT.

WELL NAME-
ATLANTIC RICHFIELD CO.
REMARKS-
WORKED BY M. FILEWICZ
RECODED BY JON E. SHAW, SFWMD, APRIL 14, 1982

STRATIGRAPHIC FORMATIONS -

0.0-	90.0	UNDIFFERENTIATED SAND, CLAY AND SHELLS
90.0-	360.0	HAWTHORN FORMATION
360.0-	400.0	OCALA GROUP
400.0-	450.0	AVON PARK LIMESTONE

LITHOLOGIC LOG
W-11366 . OSCEOLA CO. T29S, R31E, SEC 03

0.0- 10.0 SAND, VERY LIGHT ORANGE TO YELLOWISH GRAY, 33% POROSITY, INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: COARSE, RANGE: MEDIUM TO VERY COARSE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, 01% PHOSPHATIC SAND,

10.0- 20.0 LIMESTONE, VERY LIGHT ORANGE TO YELLOWISH GRAY, GRAIN TYPE: CALCILUTITE, BIOGENIC, 40% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, RANGE: CRYPTOCRYSTALLINE TO VERY FINE, MODERATE INDURATION, CALCILUTITE MATRIX, MOLLUSKS,

20.0- 30.0 SAND, VERY LIGHT ORANGE TO YELLOWISH GRAY, 33% POROSITY, INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED,

30.0- 40.0 SAND, VERY LIGHT ORANGE TO YELLOWISH GRAY, 33% POROSITY, INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: COARSE, RANGE: MEDIUM TO VERY COARSE, SUB-ANGULAR, ROUNDED, MEDIUM SPHERICITY, UNCONSOLIDATED, 01% PHOSPHATIC SAND,

40.0- 50.0 SILT, MODERATE GRAY TO MODERATE DARK GRAY, 10% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, 01% QUARTZ SAND, 01% PHOSPHATIC SAND,

ABUNDANT SAND CAVINGS

50.0- 60.0 AS ABOVE,

60.0- 70.0 SILT, MODERATE GRAY TO MODERATE DARK GRAY, 10% POROSITY, INTERGRANULAR, POOR INDURATION, CLAY MATRIX, 20% QUARTZ SAND, 01% PHOSPHATIC SAND, 02% PHOSPHATIC GRAVEL,

LITHOLOGIC LOG
W-11366 . OSCEOLA CO. T29S, R31E, SEC 03

70.0- 90.0 AS ABOVE,

90.0- 100.0 LIMESTONE, YELLOWISH GRAY TO LIGHT GRAY, 14% POROSITY, INTERCRYSTALLINE, GRAIN TYPE: CALCILUTITE, 60% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: CRYPTOCRYSTALLINE, RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE, MODERATE INDURATION, CALCILUTITE MATRIX, 40% QUARTZ SAND, 01% PHOSPHATIC SAND, 01% PHOSPHATIC GRAVEL, MOLLUSKS, ECHINOID,

100.0- 150.0 AS ABOVE,

150.0- 160.0 SAND, VERY LIGHT ORANGE TO LIGHT GRAY, 28% POROSITY, INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: COARSE, RANGE: MEDIUM TO VERY COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 04% LIMESTONE, 01% PHOSPHATIC SAND, 01% PHOSPHATIC GRAVEL, MOLLUSKS,

160.0- 220.0 AS ABOVE,

220.0- 230.0 SAND, VERY LIGHT ORANGE TO LIGHT GRAY, 28% POROSITY, INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: COARSE, RANGE: MEDIUM TO VERY COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 04% LIMESTONE, 01% PHOSPHATIC SAND, 06% PHOSPHATIC GRAVEL, MOLLUSKS,

230.0- 250.0 AS ABOVE,

250.0- 260.0 DOLOMITE, VERY LIGHT ORANGE TO LIGHT GRAY, 12% POROSITY, INTERCRYSTALLINE, POSSIBLY HIGH PERMEABILITY, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: CRYPTOCRYSTALLINE TO VERY FINE, POOR INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 03% PHOSPHATIC SAND, 04% PHOSPHATIC GRAVEL, 01% QUARTZ SAND, MOLLUSKS,

260.0- 270.0 DOLOMITE, VERY LIGHT ORANGE TO LIGHT GRAY, 12% POROSITY, INTERCRYSTALLINE, POSSIBLY HIGH PERMEABILITY, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: CRYPTOCRYSTALLINE TO VERY FINE, POOR INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 03% PHOSPHATIC SAND, 04% PHOSPHATIC GRAVEL, 01% QUARTZ SAND, MOLLUSKS, BENTHONIC FORAMINIFERA,

270.0- 310.0 AS ABOVE,

310.0- 320.0 DOLOMITE, VERY LIGHT ORANGE TO LIGHT GRAY, 12% POROSITY, INTERCRYSTALLINE, POSSIBLY HIGH PERMEABILITY, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: CRYPTOCRYSTALLINE TO VERY FINE, MODERATE INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 03% PHOSPHATIC SAND, 04% PHOSPHATIC GRAVEL, 01% QUARTZ SAND, MOLLUSKS, BENTHONIC FORAMINIFERA,

LITHOLOGIC LOG
W-11366 . OSCEOLA CO. T29S, R31E, SEC 03

320.0- 330.0 DOLOMITE, VERY LIGHT ORANGE TO LIGHT GRAY, 12% POROSITY, INTERCRYSTALLINE, POSSIBLY HIGH PERMEABILITY, MOLDIC, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: CRYPTOCRYSTALLINE TO VERY FINE, MODERATE INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, 03% PHOSPHATIC SAND, 04% PHOSPHATIC GRAVEL, 01% QUARTZ SAND, MOLLUSKS, BENTHONIC FORAMINIFERA,

330.0- 350.0 AS ABOVE,

350.0- 360.0 SAND, LIGHT GRAY TO DARK GRAY, 30% POROSITY, INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, GRAIN SIZE: COARSE, RANGE: MEDIUM TO VERY COARSE, SUB-ANGULAR, ANGULAR, MEDIUM SPHERICITY, UNCONSOLIDATED, 20% PHOSPHATIC GRAVEL, 05% PHOSPHATIC SAND,

360.0- 370.0 CALCARENITE, VERY LIGHT ORANGE TO YELLOWISH GRAY, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MODERATE INDURATION, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS, ECHINOID,

FIRST LEPIDOCYCLINA SP.

370.0- 380.0 AS ABOVE,

380.0- 390.0 CALCARENITE, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MODERATE INDURATION, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS, ECHINOID,

LEPIDOCYCLINA SP. GONE

390.0- 400.0 AS ABOVE,

400.0- 410.0 CALCARENITE, VERY LIGHT ORANGE TO YELLOWISH GRAY, 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, MODERATE INDURATION, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, MOLLUSKS, ECHINOID, CONES,

FIRST DICTYOCONUS SP.

410.0- 450.0 AS ABOVE,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W-11369

OSCEOLA CO. T27S R29E SEC 29 28 06 55 N 81 25 50 W
TOTAL DEPTH- 620 FT. ELEV.- 65 FT. SAMPLES- 0- 600 FT.
COMPLETED- 72.02.29 DEPTH WORKED 600 FT.

WELL NAME-
IRLO BRONSON #1
REMARKS-
WORKED BY T. SCOTT, MARCH 1980
RECODED BY JON E. SHAW, SFWMD, APRIL 14, 1982

STRATIGRAPHIC FORMATIONS -

0.0-	110.0	UNDIFFERENTIATED SAND, CLAY AND SHELLS
110.0-	180.0	TAMIAMI FORMATION
180.0-	190.0	HAWTHORN FORMATION
190.0-	430.0	OCALA GROUP
430.0-	600.0	AVON PARK LIMESTONE

LITHOLOGIC LOG
W-11369 . OSCEOLA CO. T27S, R29E, SEC 29

0.0- 10.0 SAND, TRANSPARENT TO GRAYISH BROWN, 30% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, UNCONSOLIDATED, 01% CLAY, IRON STAIN, SILT,

10.0- 20.0 SAND, GRAYISH BROWN TO GRAYISH ORANGE, 30% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, POOR INDURATION, CLAY MATRIX, 03% CLAY, SILT,

20.0- 30.0 AS ABOVE,

30.0- 40.0 SAND, VERY LIGHT ORANGE TO PINKISH GRAY, 20% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, POOR INDURATION, CLAY MATRIX, CLAY, SILT,

40.0- 50.0 CLAY, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, POOR INDURATION, CLAY MATRIX, CALCILUTITE MATRIX, 40% QUARTZ SAND, 01% PHOSPHATIC SAND, CALCILUTITE, MOLLUSKS, FOSSIL FRAGMENTS,

50.0- 60.0 CALCILUTITE, LIGHT OLIVE GRAY, POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, POOR INDURATION, CLAY MATRIX, CALCILUTITE MATRIX, 20% QUARTZ SAND, 01% PHOSPHATIC SAND, 30% CLAY, MOLLUSKS, BENTHONIC FORAMINIFERA, FOSSIL FRAGMENTS,

60.0- 80.0 AS ABOVE,

LITHOLOGIC LOG
W-11369 . OSCEOLA CO. T27S, R29E, SEC 29

80.0- 90.0 LIMESTONE, WHITE, POROSITY, MOLDIC, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, QUARTZ SAND, 01% PHOSPHATIC SAND,

ALSO CONTAINS FRAGMENTS AS 80, OFTEN INTERLAYERED.

90.0- 100.0 AS ABOVE,

100.0- 110.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN TYPE: CALCILUTITE, CRYSTALS, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 45% QUARTZ SAND, 01% PHOSPHATIC SAND, MEDIUM RECRYSTALLIZATION, HIGH RECRYSTALLIZATION, FOSSIL FRAGMENTS, MOLLUSKS,

VARIABLE TO CALC SAND

110.0- 120.0 LIMESTONE, LIGHT GRAY, POROSITY, LOW PERMEABILITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: CRYSTALS, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 45% QUARTZ SAND, 01% PHOSPHATIC SAND, FOSSIL FRAGMENTS, MOLLUSKS,

120.0- 140.0 AS ABOVE,

140.0- 150.0 SHELL BED, LIGHT OLIVE GRAY, 15% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, POOR INDURATION, CALCILUTITE MATRIX, CLAY MATRIX, QUARTZ SAND, 01% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

150.0- 160.0 SAND, YELLOWISH GRAY, 03% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, MODERATE INDURATION, CALCILUTITE MATRIX, 01% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

VARIABLE TO LIMESTONE

160.0- 170.0 SAND, YELLOWISH GRAY, POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN SIZE: COARSE, RANGE: FINE TO COARSE, ROUNDED, SUB-ANGULAR, POOR INDURATION, CALCILUTITE MATRIX, CALCILUTITE, 01% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

SCATTERED FRAGMENTS OF WELL-INDURATED LIMESTONE. HOWEVER, MOST MATRIX WASHED OUT.

170.0- 180.0 AS ABOVE,

180.0- 190.0 DOLOMITE, LIGHT GRAY TO YELLOWISH GRAY, POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE, MOLDIC, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, 05% PHOSPHATIC SAND,

ALSO CONTAINS SANDY PHOSPHATE LIMESTONE-

LITHOLOGIC LOG
W-11369 . OSCEOLA CO. T27S, R29E, SEC 29

THIS IS QUESTIONABLE HAWTHORN.

190.0- 200.0 CALCARENITE, WHITE, POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, POOR INDURATION, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, BRYOZOA, MOLLUSKS, ECHINOID,

ABUNDANT CAVING OF HAWTHORN-TYPE MATERIALS.

200.0- 250.0 AS ABOVE,

250.0- 260.0 CALCARENITE, VERY LIGHT ORANGE TO WHITE, 03% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, LOW RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, ECHINOID, MOLLUSKS, BRYOZOA,

260.0- 280.0 AS ABOVE,

280.0- 290.0 CALCARENITE, VERY LIGHT ORANGE TO WHITE, 15% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CALCILUTITE, FROSTED, BROWN ANHYDRITE CRYSTALS, POOR SAMPLE,

290.0- 300.0 AS ABOVE,

300.0- 310.0 CALCARENITE, VERY LIGHT ORANGE TO WHITE, 07% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, MEDIUM RECRYSTALLIZATION, HIGH RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, BRYOZOA, ECHINOID,

310.0- 320.0 AS ABOVE,

320.0- 330.0 CALCARENITE, VERY LIGHT ORANGE TO WHITE, 15% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, MEDIUM RECRYSTALLIZATION, HIGH RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, BRYOZOA, ECHINOID,

330.0- 360.0 AS ABOVE,

360.0- 370.0 CALCARENITE, VERY LIGHT ORANGE TO WHITE, 05% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, MEDIUM RECRYSTALLIZATION, HIGH RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, ECHINOID,

370.0- 380.0 CALCARENITE, VERY LIGHT ORANGE TO WHITE, 20% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, MEDIUM RECRYSTALLIZATION, HIGH RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, ECHINOID,

LITHOLOGIC LOG
W-11369 . OSCEOLA CO. T27S, R29E, SEC 29

380.0- 390.0 CALCARENITE, VERY LIGHT ORANGE TO WHITE, 10% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, MEDIUM RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, ECHINOID,

390.0- 400.0 CALCARENITE, VERY LIGHT ORANGE TO WHITE, 07% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, POOR INDURATION, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, ECHINOID, ALGAE,

400.0- 410.0 CALCARENITE, VERY LIGHT ORANGE TO WHITE, 10% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, POOR INDURATION, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, ECHINOID, ALGAE,

410.0- 420.0 AS ABOVE,

420.0- 430.0 CALCARENITE, VERY LIGHT ORANGE, 10% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, BENTHONIC FORAMINIFERA, ECHINOID, ALGAE,

430.0- 440.0 DOLOMITE, GRAYISH BROWN TO VERY LIGHT ORANGE, 03% POROSITY, INTERCRYSTALLINE, MOLDIC, PIN POINT VUGS, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, 30% LIMESTONE,

DOLOMITE CONTAINS UNALTERED LIMESTONE AREAS.

440.0- 500.0 AS ABOVE,

500.0- 510.0 DOLOMITE, GRAYISH BROWN TO VERY LIGHT ORANGE, POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE, MOLDIC, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, 30% LIMESTONE,

510.0- 530.0 AS ABOVE,

530.0- 540.0 LIMESTONE, VERY LIGHT ORANGE TO WHITE, 05% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN TYPE: SKELETAL, BIOGENIC, CALCILUTITE, 60% ALLOCHEMICAL CONSTITUENTS, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 30% DOLOMITE, DOLOMITIC, MEDIUM RECRYSTALLIZATION,

540.0- 550.0 AS ABOVE,

550.0- 560.0 DOLOMITE, GRAYISH BROWN TO VERY LIGHT ORANGE, POROSITY, INTERCRYSTALLINE, MOLDIC, PIN POINT VUGS, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO MICROCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 25% LIMESTONE,

560.0- 590.0 AS ABOVE,

LITHOLOGIC LOG
W-11369 . OSCEOLA CO. T27S, R29E, SEC 29

590.0- 600.0 CALCARENITE, VERY LIGHT ORANGE, 07% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, DOLOMITE, DOLOMITIC, MEDIUM RECRYSTALLIZATION,

IN SAMPLES 440-590, DIFFICULT TO DETERMINE AMOUNT OF CAVING. ASSUMED TO BE PREDOMINANTLY DOLOMITE.

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W-11954

OSCEOLA CO. T27S R32E SEC 36 28 05 30 N 81 04 10 W
TOTAL DEPTH- 380 FT. ELEV.- 75 FT. SAMPLES- 10- 380 FT.
COMPLETED- 73.06.29 DEPTH WORKED 380 FT.

WELL NAME-
MOHAWK GROVES INC.
REMARKS-
WORKED BY T. SCOTT, MARCH, 1980
RECODED BY JON E. SHAW, SFWMD, APRIL 14, 1982

STRATIGRAPHIC FORMATIONS -

0.0-	210.0	UNDIFFERENTIATED SAND, CLAY AND SHELLS
210.0-	340.0	HAWTHORN FORMATION
340.0-	380.0	OCALA GROUP

LITHOLOGIC LOG
W-11954 . OSCEOLA CO. T27S, R32E, SEC 36

0.0- 10.0 SAND, TRANSPARENT TO VERY LIGHT ORANGE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, UNCONSOLIDATED, 01% HEAVY MINERALS, 01% PHOSPHATIC SAND, IRON STAIN,

10.0- 20.0 AS ABOVE,

20.0- 30.0 SAND, TRANSPARENT, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, ANGULAR, SUB-ANGULAR, UNCONSOLIDATED, 01% HEAVY MINERALS,

30.0- 40.0 SAND, TRANSPARENT TO LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, UNCONSOLIDATED, 03% PHOSPHATIC SAND,

40.0- 50.0 SAND, TRANSPARENT, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, ANGULAR, SUB-ANGULAR, UNCONSOLIDATED, 01% PHOSPHATIC SAND, 01% HEAVY MINERALS, MOLLUSKS, FOSSIL FRAGMENTS,

50.0- 60.0 AS ABOVE,

PROBABLY CONTAINED A MICRITIC MATRIX NOW WASHED OUT.

60.0- 70.0 SHELL BED, VERY LIGHT ORANGE TO GRAYISH BROWN, 30% POROSITY, INTERGRANULAR, POOR INDURATION, CALCILUTITE MATRIX, 35% QUARTZ SAND, 02% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

70.0- 90.0 AS ABOVE,

80 TO 90 PERCENT FINELY BROKEN SHELLS.

LITHOLOGIC LOG
W-11954 . OSCEOLA CO. T27S, R32E, SEC 36

90.0- 100.0 SAND, TRANSPARENT TO VERY LIGHT ORANGE, 30% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, UNCONSOLIDATED, 01% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

100.0- 110.0 SAND, TRANSPARENT, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, UNCONSOLIDATED, 01% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

110.0- 120.0 SHELL BED, VERY LIGHT ORANGE TO VERY LIGHT GRAY, 30% POROSITY, INTERGRANULAR, POOR INDURATION, CALCILUTITE MATRIX, 02% PHOSPHATIC SAND, 40% QUARTZ SAND, MOLLUSKS, FOSSIL FRAGMENTS,

120.0- 150.0 AS ABOVE,

MOST MATRIX MATERIAL WASHED OUT.

150.0- 160.0 SAND, TRANSPARENT, 30% POROSITY, INTERGRANULAR, GRAIN SIZE: COARSE, RANGE: FINE TO COARSE, SUB-ANGULAR, UNCONSOLIDATED, 02% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

160.0- 170.0 AS ABOVE,

170.0- 180.0 SAND, TRANSPARENT, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, UNCONSOLIDATED, 01% PHOSPHATIC SAND,

180.0- 190.0 SAND, TRANSPARENT TO LIGHT GRAY, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: COARSE, RANGE: MEDIUM TO VERY COARSE, SUB-ANGULAR, ROUNDED, UNCONSOLIDATED, 35% PHOSPHATIC SAND, DOLOMITE,

PROBABLY HAD A DOLOMITE MATRIX THAT HAS BEEN WASHED OUT. A FEW FRAGMENTS OF DOLOMITE REMAIN.

190.0- 200.0 SAND, TRANSPARENT, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, ANGULAR, SUB-ANGULAR, UNCONSOLIDATED, 20% PHOSPHATIC SAND,

200.0- 210.0 AS ABOVE,

210.0- 220.0 PHOSPHATE, BLACK TO DARK GRAY, UNCONSOLIDATED, QUARTZ SAND, DOLOMITE,

CHUNKS OF DOLOMITE INDICATE THAT DOLO MATRIX HAS MOST LIKELY BEEN REMOVED, CAUSING A FALSE CONCENTRATION OF PHOS. ABUNDANT CAVED SHELL PRESENT.

220.0- 230.0 DOLOMITE, YELLOWISH GRAY, 10% POROSITY, INTERCRYSTALLINE, MOLDIC, PIN POINT VUGS, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, QUARTZ SAND, PHOSPHATIC SAND,

LITHOLOGIC LOG
W-11954 . OSCEOLA CO. T27S, R32E, SEC 36

230.0- 240.0 AS ABOVE,

240.0- 250.0 SAND, TRANSPARENT, POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, UNCONSOLIDATED, 02% PHOSPHATIC SAND,

MATRIX COMPLETELY REMOVED

250.0- 260.0 DOLOMITE, YELLOWISH GRAY, 10% POROSITY, INTERCRYSTALLINE, MOLDIC, PIN POINT VUGS, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, PHOSPHATIC SAND, QUARTZ SAND,

260.0- 270.0 SAND, TRANSPARENT, POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN SIZE: COARSE, RANGE: FINE TO COARSE, SUB-ANGULAR, ROUNDED, UNCONSOLIDATED, PHOSPHATIC SAND,

DOLOMITE MATRIX WASHED OUT.

270.0- 290.0 DOLOMITE, YELLOWISH GRAY TO VERY LIGHT ORANGE, 10% POROSITY, INTERCRYSTALLINE, MOLDIC, PIN POINT VUGS, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, MODERATE INDURATION, DOLOMITE CEMENT, 04% PHOSPHATIC SAND, QUARTZ SAND,

290.0- 310.0 AS ABOVE,

310.0- 320.0 DOLOMITE, YELLOWISH GRAY TO LIGHT OLIVE GRAY, 07% POROSITY, INTERCRYSTALLINE, MOLDIC, PIN POINT VUGS, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, 15% PHOSPHATIC SAND, 10% QUARTZ SAND, FOSSIL MOLDS, MOLLUSKS,

320.0- 330.0 AS ABOVE,

330.0- 340.0 DOLOMITE, VERY LIGHT ORANGE, 20% POROSITY, INTERCRYSTALLINE, MOLDIC, PIN POINT VUGS, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, GOOD INDURATION, DOLOMITE CEMENT, PHOSPHATIC SAND, QUARTZ SAND, FOSSIL MOLDS, MOLLUSKS,

340.0- 350.0 CALCARENITE, WHITE, POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, POOR INDURATION, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA,

350.0- 380.0 CALCARENITE, WHITE, 07% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, POOR INDURATION, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, ECHINOID, MOLLUSKS,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W-13942

OSCEOLA CO. T29S R33E SEC 23AD N W
TOTAL DEPTH- 432 FT. ELEV.- 53 FT. SAMPLES- 0- 432 FT.
COMPLETED- . . DEPTH WORKED 432 FT.

WELL NAME-
UNCLE DUKE #1
REMARKS-
WORKED BY TOM SCOTT
RECODED BY JON E. SHAW, SFWMD, APRIL 14, 1982

STRATIGRAPHIC FORMATIONS -

0.0-	140.0	UNDIFFERENTIATED SAND, CLAY AND SHELLS
140.0-	270.0	HAWTHORN FORMATION
270.0-	312.0	OCALA GROUP
312.0-	432.0	AVON PARK LIMESTONE

LITHOLOGIC LOG
W-13942 . OSCEOLA CO. T29S, R33E, SEC 23AD

0.0- 10.0 SAND, TRANSPARENT TO LIGHT GRAYISH BROWN, 40% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: VERY FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, UNCONSOLIDATED,

10.0- 20.0 SAND, TRANSPARENT TO VERY LIGHT ORANGE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, UNCONSOLIDATED, 01% HEAVY MINERALS,

20.0- 30.0 SHELL BED, VERY LIGHT ORANGE, 35% POROSITY, INTERGRANULAR, UNCONSOLIDATED, 01% HEAVY MINERALS, 45% QUARTZ SAND, 01% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

SAND, TRANSPARENT TO VERY LIGHT ORANGE, 35% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, UNCONSOLIDATED, 01% HEAVY MINERALS, 01% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

ALL FOSSIL FRAGMENTS WORN BY H2O. BEACH FACIES

30.0- 40.0 SHELL BED, DARK YELLOWISH BROWN, 30% POROSITY, INTERGRANULAR, UNCONSOLIDATED, 30% QUARTZ SAND, 01% HEAVY MINERALS, 01% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

40.0- 50.0 AS ABOVE,

50.0- 60.0 SHELL BED, GRAYISH ORANGE PINK, 25% POROSITY, INTERGRANULAR, POOR INDURATION, CALCILUTITE MATRIX, 10% QUARTZ SAND,

LITHOLOGIC LOG
W-13942 . OSCEOLA CO. T29S, R33E, SEC 23AD

60.0- 70.0 SHELL BED, PINKISH GRAY TO GRAYISH ORANGE PINK, 20% POROSITY, INTERGRANULAR, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 40% QUARTZ SAND, 01% HEAVY MINERALS, MOLLUSKS, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

70.0- 75.0 SAND, WHITE TO VERY LIGHT ORANGE, 15% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, POOR INDURATION, CALCILUTITE MATRIX, MOLLUSKS, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

75.0- 85.0 SHELL BED, GRAYISH ORANGE PINK, 20% POROSITY, INTERGRANULAR, POOR INDURATION, CALCILUTITE MATRIX, 30% QUARTZ SAND, 01% HEAVY MINERALS, PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

85.0- 90.0 SHELL BED, WHITE TO GRAYISH ORANGE PINK, 20% POROSITY, INTERGRANULAR, POOR INDURATION, CALCILUTITE MATRIX, CLAY MATRIX, QUARTZ SAND, HEAVY MINERALS, MOLLUSKS, FOSSIL FRAGMENTS,

90.0- 100.0 SHELL BED, LIGHT OLIVE GRAY TO YELLOWISH GRAY, 15% POROSITY, INTERGRANULAR, POOR INDURATION, CALCILUTITE MATRIX, CLAY MATRIX, 40% QUARTZ SAND, HEAVY MINERALS, MOLLUSKS, FOSSIL FRAGMENTS,

THIN LENSES OF SANDY LS PRESENT

100.0- 110.0 SAND, LIGHT OLIVE GRAY TO YELLOWISH GRAY, 15% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: VERY FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, POOR INDURATION, CALCILUTITE MATRIX, CLAY MATRIX, 01% HEAVY MINERALS, 01% PHOSPHATIC SAND, MOLLUSKS, FOSSIL FRAGMENTS,

110.0- 114.0 SAND, LIGHT OLIVE GRAY, 20% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, POOR INDURATION, CALCILUTITE MATRIX, CLAY MATRIX, 02% PHOSPHATIC SAND, CLAY, FOSSIL FRAGMENTS, MOLLUSKS,

114.0- 115.0 SAND, YELLOWISH GRAY, 20% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, POOR INDURATION, CALCILUTITE MATRIX, CLAY MATRIX, 01% PHOSPHATIC SAND, CLAY, FOSSIL FRAGMENTS, MOLLUSKS,

115.0- 122.0 SAND, LIGHT OLIVE GRAY, 20% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: VERY FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, POOR INDURATION, CLAY MATRIX, CALCILUTITE MATRIX, 01% PHOSPHATIC SAND, CLAY, FOSSIL FRAGMENTS, MOLLUSKS,

VARIABLE CLAY CONTENT CAUSING COLOR VARIATIONS
CLAYEY SAND AT 121-122

LITHOLOGIC LOG
W-13942 . OSCEOLA CO. T29S, R33E, SEC 23AD

122.0- 132.0 SAND, YELLOWISH GRAY, 20% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, POOR INDURATION, CALCILUTITE MATRIX, CLAY MATRIX, 03% PHOSPHATIC SAND, CLAY, CALCILUTITE, MOLLUSKS, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

132.0- 135.0 AS ABOVE,

135.0- 140.0 NO SAMPLE,

140.0- 140.5 CLAY, OLIVE GRAY, POROSITY, LOW PERMEABILITY, MODERATE INDURATION, CLAY MATRIX, SILT, BENTHONIC FORAMINIFERA,

140.5- 142.5 SILT, YELLOWISH GRAY, 03% POROSITY, INTERGRANULAR, MODERATE INDURATION, CALCILUTITE MATRIX, CLAY MATRIX, QUARTZ SAND, CLAY, FOSSIL FRAGMENTS,

142.5- 145.0 CLAY AS 140 AT 142-142.5

145.0- 147.0 SAND, LIGHT OLIVE GRAY TO YELLOWISH GRAY, 25% POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, SUB-ANGULAR, ANGULAR, POOR INDURATION, CLAY MATRIX, CALCILUTITE MATRIX, SILT, 01% PHOSPHATIC SAND, BENTHONIC FORAMINIFERA, FOSSIL FRAGMENTS, MOLLUSKS,

CLAY CONTENT VARIABLE

147.0- 151.0 SAND, YELLOWISH GRAY, 10% POROSITY, INTERGRANULAR, GRAIN SIZE: VERY FINE, RANGE: VERY FINE TO FINE, ANGULAR, POOR INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, CLAY MATRIX, PHOSPHATIC SAND, SILT,

VARIES TO A SANDY CARBONATE

151.0- 155.0 SAND, YELLOWISH GRAY TO OLIVE GRAY, POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN SIZE: MEDIUM, RANGE: FINE TO MEDIUM, ANGULAR, SUB-ANGULAR, POOR INDURATION, CLAY MATRIX, CALCILUTITE MATRIX, 01% PHOSPHATIC SAND,

LENSES OF SANDY CLAY AND FINE GRAINED SAND LAYERS

155.0- 160.0 SAND, LIGHT OLIVE GRAY, 15% POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO FINE, SUB-ANGULAR, ANGULAR, POOR INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, CLAY MATRIX, 05% PHOSPHATIC SAND,

160.0- 165.0 CLAY, LIGHT OLIVE GRAY, POROSITY, LOW PERMEABILITY, POOR INDURATION, CLAY MATRIX, DOLOMITE CEMENT, QUARTZ SAND, SILT, 02% PHOSPHATIC SAND, DOLOMITIC,

VARIES TO A CLAYEY DOLOMICRITE.
GRADES INTO UNDERLYING SAND UNIT

LITHOLOGIC LOG
W-13942 . OSCEOLA CO. T29S, R33E, SEC 23AD

165.0- 180.0 SAND, YELLOWISH GRAY TO LIGHT OLIVE GRAY, 20% POROSITY, INTERGRANULAR, GRAIN SIZE: COARSE, RANGE: FINE TO COARSE, SUB-ANGULAR, ROUNDED, POOR INDURATION, DOLOMITE CEMENT, CALCILUTITE MATRIX, CLAY MATRIX, 01% PHOSPHATIC SAND, SILT,

BECOMES VIRTUALLY UNCONSOLIDATED BETWEEN 170-180

180.0- 190.0 AS ABOVE,

190.0- 192.0 SAND, LIGHT OLIVE GRAY, 20% POROSITY, INTERGRANULAR, GRAIN SIZE: COARSE, RANGE: VERY FINE TO COARSE, SUB-ANGULAR, ROUNDED, POOR INDURATION, DOLOMITE CEMENT, CALCILUTITE MATRIX, CLAY MATRIX, 10% PHOSPHATIC SAND, PHOSPHATIC GRAVEL, SILT, CLAY,

ABUNDANT CLASTS OF PHOSPHATIZED CARBONATE

192.0- 200.0 DOLOMITE, YELLOWISH GRAY, POROSITY, INTERCRYSTALLINE, MOLDIC, PIN POINT VUGS, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 15% PHOSPHATIC SAND, 05% QUARTZ SAND, FOSSIL MOLDS, MOLLUSKS,

200.0- 210.0 DOLOMITE, YELLOWISH GRAY, 20% POROSITY, INTERCRYSTALLINE, MOLDIC, PIN POINT VUGS, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: CRYPTOCRYSTALLINE TO VERY FINE, MODERATE INDURATION, DOLOMITE CEMENT, 25% PHOSPHATIC SAND, 10% QUARTZ SAND,

210.0- 216.0 DOLOMITE, VERY LIGHT GRAY TO YELLOWISH GRAY, POROSITY, MOLDIC, INTERCRYSTALLINE, PIN POINT VUGS, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: CRYPTOCRYSTALLINE, RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 05% PHOSPHATIC SAND, QUARTZ SAND, FOSSIL MOLDS,

216.0- 222.0 DOLOMITE, VERY LIGHT GRAY TO YELLOWISH GRAY, POROSITY, INTERCRYSTALLINE, MOLDIC, PIN POINT VUGS, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 10% PHOSPHATIC SAND, 10% QUARTZ SAND, FOSSIL MOLDS, MOLLUSKS,

222.0- 223.0 DOLOMITE, VERY LIGHT GRAY TO YELLOWISH GRAY, POROSITY, INTERCRYSTALLINE, MOLDIC, PIN POINT VUGS, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, MODERATE INDURATION, DOLOMITE CEMENT, 15% PHOSPHATIC SAND, 20% QUARTZ SAND,

223.0- 233.0 LIMESTONE, WHITE, 15% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN TYPE: CALCILUTITE, CRYSTALS, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 03% PHOSPHATIC SAND, 05% QUARTZ SAND, FOSSIL MOLDS, MOLLUSKS,

LITHOLOGIC LOG
W-13942 . OSCEOLA CO. T29S, R33E, SEC 23AD

233.0- 237.0 NO SAMPLE,

237.0- 242.0 LIMESTONE, WHITE, 15% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN TYPE: CALCILUTITE, CRYSTALS, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 03% PHOSPHATIC SAND, 05% QUARTZ SAND, MEDIUM RECRYSTALLIZATION, FOSSIL MOLDS, MOLLUSKS,

242.0- 245.0 DOLOMITE, YELLOWISH GRAY, 25% POROSITY, INTERCRYSTALLINE, MOLDIC, PIN POINT VUGS, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, 25% QUARTZ SAND, 03% PHOSPHATIC SAND, FOSSIL MOLDS,

245.0- 255.0 DOLOMITE, YELLOWISH GRAY, 20% POROSITY, INTERCRYSTALLINE, MOLDIC, PIN POINT VUGS, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: MICROCRYSTALLINE, RANGE: MICROCRYSTALLINE TO VERY FINE, GOOD INDURATION, DOLOMITE CEMENT, 30% QUARTZ SAND, 04% PHOSPHATIC SAND, FOSSIL MOLDS,

THIN ZONES OF SILTY DOLOMITE

255.0- 262.0 AS ABOVE,

262.0- 270.0 DOLOMITE, YELLOWISH GRAY, 10% POROSITY, INTERCRYSTALLINE, MOLDIC, PIN POINT VUGS, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: FINE TO MICROCRYSTALLINE, GOOD INDURATION, DOLOMITE CEMENT, 30% QUARTZ SAND, 05% PHOSPHATIC SAND, FOSSIL MOLDS,

270.0- 273.0 NO SAMPLE,

CAVITY

273.0- 278.0 CALCARENITE, WHITE, 10% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, LOW RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION, FOSSIL MOLDS, MOLLUSKS, BENTHONIC FORAMINIFERA,

278.0- 292.0 CALCARENITE, VERY LIGHT ORANGE TO WHITE, 25% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, LOW RECRYSTALLIZATION, FOSSIL MOLDS, MOLLUSKS, BENTHONIC FORAMINIFERA, CORAL, BRYOZOA,

292.0- 303.0 CALCARENITE, VERY LIGHT ORANGE TO WHITE, 15% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, LOW RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION, FOSSIL MOLDS, MOLLUSKS, BENTHONIC FORAMINIFERA, BRYOZOA, ECHINOID,

LITHOLOGIC LOG
W-13942 . OSCEOLA CO. T29S, R33E, SEC 23AD

303.0- 307.0 CALCARENITE, WHITE TO VERY LIGHT ORANGE, 25% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, LOW RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION, FOSSIL MOLDS, MOLLUSKS, BENTHONIC FORAMINIFERA, BRYOZOA, ECHINOID,

307.0- 310.0 CALCARENITE, WHITE TO VERY LIGHT ORANGE, 20% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, LOW RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION, FOSSIL MOLDS, MOLLUSKS, BENTHONIC FORAMINIFERA, ALGAE, ECHINOID,

310.0- 312.0 CALCARENITE, WHITE TO VERY LIGHT ORANGE, 15% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, LOW RECRYSTALLIZATION, FOSSIL MOLDS, MOLLUSKS, BENTHONIC FORAMINIFERA, ALGAE, PLANT REMAINS,

312.0- 315.0 LIMESTONE, PINKISH GRAY TO VERY LIGHT ORANGE, 07% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, MEDIUM RECRYSTALLIZATION, HIGH RECRYSTALLIZATION,

315.0- 325.0 CALCARENITE, PINKISH GRAY TO VERY LIGHT ORANGE, 15% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, FOSSIL MOLDS, BENTHONIC FORAMINIFERA, MOLLUSKS, ALGAE,

SCATTERED ZONES OF HIGHLY RECRYSTALLIZED

325.0- 335.0 NO SAMPLE,

335.0- 345.0 CALCARENITE, VERY LIGHT ORANGE TO PINKISH GRAY, 15% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, LOW RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION, FOSSIL MOLDS, BENTHONIC FORAMINIFERA, MOLLUSKS, ALGAE,

ZONES OF HIGHLY RECRYSTALLIZED. ALSO ZONES OF FINE GRAINED RECRYSTALLIZED LIMESTONE.

345.0- 348.0 LIMESTONE, VERY LIGHT ORANGE TO PINKISH GRAY, 05% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, LOW RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, FOSSIL MOLDS, MOLLUSKS,

348.0- 352.0 CALCARENITE, VERY LIGHT ORANGE TO PINKISH GRAY, 07% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, LOW RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, FOSSIL MOLDS, MOLLUSKS, WORM TRACES,

LITHOLOGIC LOG
W-13942 . OSCEOLA CO. T29S, R33E, SEC 23AD

352.0- 357.0 LIMESTONE, VERY LIGHT ORANGE TO PINKISH GRAY, 05% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN TYPE: CALCILUTITE, BIOGENIC, POOR INDURATION, CALCILUTITE MATRIX, FOSSIL MOLDS,

357.0- 372.0 CALCARENITE, WHITE TO PINKISH GRAY, 20% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, LOW RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION, FOSSIL MOLDS, BENTHONIC FORAMINIFERA, MOLLUSKS,

372.0- 381.0 LIMESTONE, PINKISH GRAY, 04% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN TYPE: CALCILUTITE, BIOGENIC, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, MEDIUM RECRYSTALLIZATION, HIGH RECRYSTALLIZATION, DOLOMITIC,

381.0- 382.0 CALCARENITE, WHITE, 05% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, MEDIUM RECRYSTALLIZATION, ECHINOID, MOLLUSKS, FOSSIL MOLDS,

382.0- 412.0 LIMESTONE, WHITE, 05% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, GRAIN TYPE: CALCILUTITE, SKELETAL, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, DOLOMITIC, MEDIUM RECRYSTALLIZATION, HIGH RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, FOSSIL MOLDS,

ZONES OF CALCARENITE

412.0- 422.0 CALCARENITE, PINKISH GRAY TO WHITE, 15% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, MEDIUM RECRYSTALLIZATION, FOSSIL MOLDS, FOSSIL FRAGMENTS, BENTHONIC FORAMINIFERA,

422.0- 427.0 AS ABOVE,

427.0- 432.0 CALCARENITE, LIGHT OLIVE GRAY TO WHITE, 15% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, LOW RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, FOSSIL FRAGMENTS, FOSSIL MOLDS,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W-HIF35

HIGHLANDS CO. T35S R32E SEC 18AA 27 21 14 N 81 09 54 W
TOTAL DEPTH- 1240 FT. ELEV.- 43 FT. 62 SAMPLES- 0- 1240 FT.
COMPLETED- 12.15.81 DEPTH WORKED 1240 FT.

WELL NAME-
HIF-35, LYKES BROS. INC, FORT BASINGER GROVE, DRILLED BY B.J. MCCULLERS
REMARKS-
WORKED BY JON SHAW, 2-24-82 SAMPLES GOOD, SOME CAVING
GEOPHYSICAL LOGS AVAILABLE

HYDROGEOLOGIC UNITS

0.0- 189.0 SHALLOW AQUIFER SYSTEM
189.0- 425.0 HAWTHORN CONFINING BEDS
425.0-1240.0 FLORIDAN AQUIFER SYSTEM

STRATIGRAPHIC FORMATIONS -

0.0- 189.0 UNDIFFERENTIATED SAND, CLAY AND SHELLS
189.0- 444.0 HAWTHORN FORMATION
444.0- 668.0 OCALA GROUP
668.0- 1240.0 AVON PARK LIMESTONE

LITHOLOGIC LOG
W-HIF35 . HIGHLANDS CO. T35S, R32E, SEC 18AA

0.0- 21.0 SAND, LIGHT BROWN, POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, UNCONSOLIDATED,

21.0- 42.0 SAND, LIGHT BROWN, POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, SUB-ANGULAR, UNCONSOLIDATED,

42.0- 63.0 SAND, GRAYISH BROWN, POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, UNCONSOLIDATED,

63.0- 84.0 SAND, OLIVE GRAY TO WHITE, POROSITY, INTERGRANULAR, MOLDIC, GRAIN SIZE: FINE, RANGE: FINE TO MEDIUM, SUB-ANGULAR, POOR INDURATION, CLAY MATRIX, MOLLUSKS,

84.0- 105.0 LIMESTONE, VERY LIGHT ORANGE TO LIGHT OLIVE GRAY, POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: SKELETAL CAST, CALCILUTITE, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: VERY FINE TO COARSE, POOR INDURATION, CLAY MATRIX, CALCILUTITE MATRIX, 25% QUARTZ SAND, 01% CLAY, MOLLUSKS,

105.0- 126.0 LIMESTONE, WHITE TO LIGHT GRAY, POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: SKELETAL CAST, CALCILUTITE, CRYSTALS, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, 25% QUARTZ SAND, 01% PHOSPHATIC SAND, MOLLUSKS,

LITHOLOGIC LOG
W-HIF35 . HIGHLANDS CO. T35S, R32E, SEC 18AA

126.0- 147.0 LIMESTONE, VERY LIGHT GRAY, POROSITY, MOLDIC, GRAIN TYPE: SKELETAL CAST, CALCILUTITE, 90% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, 25% QUARTZ SAND, 02% PHOSPHATIC SAND, MOLLUSKS,

147.0- 168.0 LIMESTONE, WHITE TO LIGHT GRAY, POROSITY, MOLDIC, GRAIN TYPE: SKELETAL CAST, CALCILUTITE, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO VERY COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 10% QUARTZ SAND, 02% PHOSPHATIC SAND, 02% SPAR, MOLLUSKS,

168.0- 189.0 LIMESTONE, LIGHT OLIVE GRAY, POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: SKELETAL, CRYSTALS, 65% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: VERY FINE TO COARSE, POOR INDURATION, CLAY MATRIX, SPARRY CALCITE CEMENT, 25% QUARTZ SAND, 01% PHOSPHATIC SAND, 05% SPAR, 02% CLAY, MOLLUSKS, FOSSIL FRAGMENTS,

189.0- 210.0 SAND, LIGHT OLIVE GRAY, POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, ROUNDED, UNCONSOLIDATED, 01% PHOSPHATIC SAND, 02% CLAY,

210.0- 231.0 SAND, VERY LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, ROUNDED, UNCONSOLIDATED, 01% PHOSPHATIC SAND, FOSSIL FRAGMENTS,

231.0- 252.0 SAND, LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN SIZE: COARSE, SUB-ANGULAR, UNCONSOLIDATED, 02% PHOSPHATIC SAND,

252.0- 273.0 SAND, VERY LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, SUB-ANGULAR, UNCONSOLIDATED, 01% PHOSPHATIC SAND,

273.0- 294.0 SAND, VERY LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, UNCONSOLIDATED, 01% PHOSPHATIC SAND,

294.0- 315.0 SAND, VERY LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, UNCONSOLIDATED, 01% PHOSPHATIC SAND, 01% CLAY,

315.0- 336.0 LIMESTONE, LIGHT GRAY TO MODERATE GRAY, POROSITY, MOLDIC, GRAIN TYPE: SKELETAL CAST, 95% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: COARSE, RANGE: MEDIUM TO GRANULE, MODERATE INDURATION, SPARRY CALCITE CEMENT, 02% PHOSPHATIC SAND, 03% CALCITE, 02% QUARTZ SAND, MOLLUSKS, FOSSIL FRAGMENTS,

336.0- 351.0 LIMESTONE, VERY LIGHT GRAY TO MODERATE GRAY, POROSITY, MOLDIC, GRAIN TYPE: SKELETAL CAST, 95% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: COARSE, RANGE: MEDIUM TO GRANULE, MODERATE INDURATION, SPARRY CALCITE CEMENT, 10% PHOSPHATIC SAND, 03% CALCITE, 03% QUARTZ SAND, MOLLUSKS, FOSSIL FRAGMENTS,

LARGE PHOSPHATE PEBBLES

LITHOLOGIC LOG
W-HIF35 . HIGHLANDS CO. T35S, R32E, SEC 18AA

351.0- 360.0 LIMESTONE, WHITE TO MODERATE LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: CRYSTALS, 99% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: COARSE, RANGE: MICROCRYSTALLINE TO VERY COARSE, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 30% PHOSPHATIC SAND, 05% CALCITE, 01% CALCILUTITE, CHALKY,

LARGE AND SMALL PHOSPHATE PARTICLES ABUNDANT
FEW FOSSILS

360.0- 380.0 LIMESTONE, VERY LIGHT GRAY TO LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 15% PHOSPHATIC SAND, 15% SILT, CHALKY, MOLLUSKS,

380.0- 400.0 LIMESTONE, YELLOWISH GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, POOP INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 03% PHOSPHATIC SAND, 20% SILT, CHALKY, MOLLUSKS,

LARGE PHOSPHATE PEBBLES

400.0- 420.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, 35% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO COARSE, MODERATE INDURATION, 01% PHOSPHATIC SAND, MEDIUM RECRYSTALLIZATION, CHALKY,

420.0- 440.0 LIMESTONE, WHITE TO MODERATE LIGHT GRAY, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO COARSE, MODERATE INDURATION, 01% PHOSPHATIC SAND, MEDIUM RECRYSTALLIZATION, CHALKY,

440.0- 460.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: COARSE, RANGE: FINE TO GRANULE, MODERATE INDURATION, CHALKY, BENTHONIC FORAMINIFERA, MOLLUSKS, ECHINOID,

FIRST OCCURRENCE OF LEPIDOCYCLINA SP.
OPERCULINOIDES SP.

460.0- 480.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, 95% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY COARSE, RANGE: MICROCRYSTALLINE TO GRANULE, MODERATE INDURATION, CHALKY, BENTHONIC FORAMINIFERA, ECHINOID,

LITHOLOGIC LOG
W-HIF35 . HIGHLANDS CO. T35S, R32E, SEC 18AA

480.0- 500.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, 95% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY COARSE, RANGE: MICROCRYSTALLINE TO GRANULE, MODERATE INDURATION, CHALKY, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA.

500.0- 660.0 AS ABOVE,

660.0- 680.0 LIMESTONE, VERY LIGHT GRAY, POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: CRYSTALS, CALCILUTITE, 60% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY COARSE, RANGE: MICROCRYSTALLINE TO GRANULE, MODERATE INDURATION, 01% PHOSPHATIC SAND, MEDIUM RECRYSTALLIZATION, CHALKY, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS, ECHINOID, BRYOZOA,

FIRST OCCURRENCE OF DICTYOCONUS SP.

680.0- 700.0 AS ABOVE,

700.0- 720.0 LIMESTONE, VERY LIGHT GRAY, POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: CRYSTALS, CALCILUTITE, SKELETAL, 55% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, MEDIUM RECRYSTALLIZATION, CHALKY, CONES, BENTHONIC FORAMINIFERA, ECHINOID,

720.0- 740.0 LIMESTONE, VERY LIGHT GRAY, POROSITY, INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, GRAIN TYPE: CRYSTALS, CALCILUTITE, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, MEDIUM RECRYSTALLIZATION, CHALKY, CONES, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

740.0- 800.0 AS ABOVE,

800.0- 820.0 LIMESTONE, VERY LIGHT GRAY, POROSITY, INTERGRANULAR, VUGULAR, POSSIBLY HIGH PERMEABILITY, GRAIN TYPE: CRYSTALS, CALCILUTITE, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO VERY COARSE, CHALKY, CONES, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

820.0- 940.0 AS ABOVE,

940.0- 960.0 DOLOMITE, VERY LIGHT GRAY TO LIGHT BROWN, POROSITY, POSSIBLY HIGH PERMEABILITY, 0-10% ALTERED, ANHEDRAL, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO VERY COARSE, MODERATE INDURATION, CONES, MOLLUSKS, ECHINOID,

CONTAINS BROWN RECRYSTALLIZED DOLOMITE CHIPS

960.0- 980.0 DOLOMITE, VERY LIGHT GRAY TO LIGHT BROWN, POROSITY, POSSIBLY HIGH PERMEABILITY, 0-10% ALTERED, ANHEDRAL, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO VERY COARSE, MODERATE INDURATION, CONES, MOLLUSKS, ECHINOID,

LITHOLOGIC LOG
W-HIF35 . HIGHLANDS CO. T35S, R32E, SEC 18AA

980.0- 1000.0 DOLOMITE, VERY LIGHT GRAY TO LIGHT BROWN, POROSITY, POSSIBLY HIGH PERMEABILITY, 10-50% ALTERED, ANHEDRAL, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO VERY COARSE, MODERATE INDURATION, CONES, MOLLUSKS, ECHINOID,

1000.0- 1020.0 LIMESTONE, WHITE TO YELLOWISH GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, BIOGENIC, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO GRANULE, MODERATE INDURATION, CHALKY, BENTHONIC FORAMINIFERA, CONES, BRYOZOA, ECHINOID,

1020.0- 1040.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, BIOGENIC, 80% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY COARSE, RANGE: MICROCRYSTALLINE TO GRAVEL, MODERATE INDURATION, CHALKY, MEDIUM RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, BRYOZOA,

LARGE LEPS AND VERY LARGE CUTTING FRAGMENTS

1040.0- 1060.0 DOLOMITE, VERY LIGHT GRAY TO MODERATE YELLOWISH BROWN, POROSITY, INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO VERY COARSE, MODERATE INDURATION, MEDIUM RECRYSTALLIZATION, CONES, BENTHONIC FORAMINIFERA, BRYOZOA, ECHINOID,

1060.0- 1080.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, 55% ALLOCHEMICAL CONSTITUENTS, MODERATE INDURATION, 01% PHOSPHATIC SAND, MEDIUM RECRYSTALLIZATION, CHALKY, BENTHONIC FORAMINIFERA, BRYOZOA,

1080.0- 1100.0 DOLOMITE, VERY LIGHT GRAY TO MODERATE YELLOWISH BROWN, POROSITY, INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, 10-50% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, MODERATE INDURATION, CHALKY, CONES, BENTHONIC FORAMINIFERA, BRYOZOA, ECHINOID,

1100.0- 1120.0 AS ABOVE,

1120.0- 1140.0 DOLOMITE, VERY LIGHT GRAY, POROSITY, INTERGRANULAR, 0-10% ALTERED, ANHEDRAL, GRAIN SIZE: FINE, POOR INDURATION, CHALKY, CONES, BENTHONIC FORAMINIFERA, BRYOZOA,

1140.0- 1180.0 AS ABOVE,

1180.0- 1200.0 DOLOMITE, MODERATE YELLOWISH BROWN TO VERY LIGHT GRAY, POROSITY, FRACTURE, POSSIBLY HIGH PERMEABILITY, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, GOOD INDURATION, HIGH RECRYSTALLIZATION, ECHINOID, BENTHONIC FORAMINIFERA,

MOSTLY HARD, BROWN WELL CRYSTALLIZED DOLOMITE

LITHOLOGIC LOG
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1200.0- 1220.0 DOLOMITE, VERY LIGHT GRAY TO DARK YELLOWISH BROWN, POROSITY, FRACTURE, INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, GOOD INDURATION, DOLOMITE CEMENT, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, HIGH RECRYSTALLIZATION, CONES, ECHINOID, BENTHONIC FORAMINIFERA,

1220.0- 1240.0 AS ABOVE,

LARGE WATER PRODUCING CAVITY AT BOTTOM OF WELL

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W-0KF42

HIGHLANDS CO. T34S R31E SEC 23 27 30 07 N 81 11 46 W
TOTAL DEPTH- 1180 FT. ELEV.- FT. 118 SAMPLES- 0- 1180 FT.
COMPLETED- 82.04.21 DEPTH WORKED 1180 FT.

WELL NAME-
S65C- SFWMD EXPLORATORY WELL- ALVIN WOOSTER, DRILLER
REMARKS-
CUTTING COLLECTED AND DESCRIBED BY
JON SHAW, SFWMD, APRIL 30, 1982
GEOPHYSICAL LOGS AVAILABLE

HYDROGEOLOGIC UNITS

0.0-	180.0	SHALLOW AQUIFER SYSTEM
180.0-	370.0	HAWTHORN CONFINING BED
370.0-	1100.0	FLORIDAN AQUIFER SYSTEM

STRATIGRAPHIC FORMATIONS -

0.0-	180.0	UNDIFFERENTIATED SAND, CLAY AND SHELLS
180.0-	420.0	HAWTHORN FORMATION
420.0-	590.0	OCALA GROUP
590.0-	1180.0	AVON PARK LIMESTONE

LITHOLOGIC LOG
W-0KF42 . HIGHLANDS CO. T34S, R31E, SEC 23

0.0-	20.0	SAND, DARK BROWN TO MODERATE BROWN, POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, UNCONSOLIDATED, ORGANIC MATRIX, 05% IRON STAIN, NO FOSSIL, ORGANICS,
20.0-	40.0	SHELL BED, MODERATE GRAY TO LIGHT GRAY, POROSITY, INTERGRANULAR, MOLDIC, UNCONSOLIDATED, 40% QUARTZ SAND, 05% CLAY, VARVED, MOLLUSKS,
40.0-	50.0	CLAY, LIGHT OLIVE GRAY, POROSITY, LOW PERMEABILITY, UNCONSOLIDATED, CLAY MATRIX, CALCILUTITE MATRIX, 05% QUARTZ SAND, 03% PHOSPHATIC SAND, CALCAREOUS, MOLLUSKS,
50.0-	60.0	SAND, LIGHT OLIVE GRAY TO VERY LIGHT GRAY, POROSITY, INTERGRANULAR, LOW PERMEABILITY, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, ANGULAR, UNCONSOLIDATED, CLAY MATRIX, 05% PHOSPHATIC SAND, CALCAREOUS, MOLLUSKS, SHARK TEETH,
60.0-	70.0	SAND, GREENISH GRAY TO VERY LIGHT GRAY, POROSITY, INTERGRANULAR, MOLDIC, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO VERY COARSE, SUB-ANGULAR, UNCONSOLIDATED, CLAY MATRIX, 07% PHOSPHATIC SAND, 20% CLAY, MOLLUSKS, SHARK TEETH, CRUSTACEA,

LITHOLOGIC LOG
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70.0- 80.0 SAND, LIGHT OLIVE GRAY, POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, ANGULAR, UNCONSOLIDATED, CLAY MATRIX, 15% PHOSPHATIC SAND, 20% CLAY, MOLLUSKS,

SHELL BED, WHITE, POROSITY, MOLDIC, UNCONSOLIDATED, MOLLUSKS,

80.0- 90.0 SAND, LIGHT OLIVE GRAY, POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, ANGULAR, UNCONSOLIDATED, CLAY MATRIX, 15% PHOSPHATIC SAND, 15% CLAY, CALCAREOUS, MOLLUSKS,

PHOSPHATE RUBBLE

90.0- 100.0 SAND, LIGHT OLIVE GRAY, POROSITY, INTERGRANULAR, LOW PERMEABILITY, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, SUB-ANGULAR, UNCONSOLIDATED, CLAY MATRIX, 03% PHOSPHATIC SAND, 15% CLAY, CALCAREOUS, MOLLUSKS,

ARAGONITE NEEDLES

100.0- 110.0 SAND, GRAYISH OLIVE, POROSITY, INTERGRANULAR, LOW PERMEABILITY, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, UNCONSOLIDATED, CLAY MATRIX, 03% PHOSPHATIC SAND, 20% CLAY, CALCAREOUS, MOLLUSKS,

110.0- 140.0 AS ABOVE,

140.0- 150.0 SANDSTONE, YELLOWISH GRAY, POROSITY, POSSIBLY HIGH PERMEABILITY, MODERATE INDURATION, SPARRY CALCITE CEMENT, SILICIC CEMENT, 75% QUARTZ SAND, 03% PHOSPHATIC SAND, CALCAREOUS, MOLLUSKS,

POSSIBLE GOOD AQUIFER

150.0- 170.0 AS ABOVE,

170.0- 180.0 SAND, GRAYISH OLIVE, POROSITY, INTERGRANULAR, LOW PERMEABILITY, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, SUB-ANGULAR, UNCONSOLIDATED, CLAY MATRIX, 25% CLAY, 01% PHOSPHATIC SAND, NO FOSSIL,

TOP OF CONFINING ZONE

180.0- 210.0 AS ABOVE,

SHELL CAVINGS FROM ABOVE

210.0- 240.0 AS ABOVE,

240.0- 250.0 SAND, LIGHT OLIVE GRAY, POROSITY, LOW PERMEABILITY, GRAIN SIZE: FINE, SUB-ANGULAR, UNCONSOLIDATED, CLAY MATRIX, 02% PHOSPHATIC SAND, NO FOSSIL,

LITHOLOGIC LOG
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250.0- 260.0 AS ABOVE,

260.0- 270.0 CLAY, OLIVE GRAY, POROSITY, LOW PERMEABILITY, UNCONSOLIDATED, 15% PHOSPHATIC SAND, 05% QUARTZ SAND, NO FOSSIL,

270.0- 310.0 AS ABOVE,

310.0- 320.0 CLAY, VERY LIGHT GRAY TO LIGHT GRAY, POROSITY, LOW PERMEABILITY, UNCONSOLIDATED, 30% PHOSPHATIC SAND, 05% QUARTZ SAND, CALCAREOUS, MOLLUSKS,

320.0- 330.0 LIMESTONE, VERY LIGHT GRAY, POROSITY, LOW PERMEABILITY, UNCONSOLIDATED, 25% PHOSPHATIC SAND, 15% QUARTZ SAND, 20% CLAY, CALCAREOUS, FOSSIL MOLDS,

LARGE PHOSPHATE PEBBLES

330.0- 350.0 AS ABOVE,

350.0- 360.0 SAND, YELLOWISH GRAY, POROSITY, LOW PERMEABILITY, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, ROUNDED, UNCONSOLIDATED, CLAY MATRIX, CALCILUTITE MATRIX, 05% PHOSPHATIC SAND, 10% CLAY, CALCAREOUS, FOSSIL FRAGMENTS,

360.0- 370.0 AS ABOVE,

SOME SPARRY CALCITE

370.0- 380.0 LIMESTONE, WHITE, POROSITY, POSSIBLY HIGH PERMEABILITY, GRAIN TYPE: CALCILUTITE, CRYSTALS, 10% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 10% PHOSPHATIC SAND, CHALKY, MOLLUSKS,

TOP OF FLORIDAN AQUIFER SYSTEM

380.0- 390.0 AS ABOVE,

390.0- 400.0 LIMESTONE, WHITE TO GRAYISH BROWN, GRAIN TYPE: CALCILUTITE, CRYSTALS, INTRACLASTS, 05% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 15% PHOSPHATIC SAND, 02% QUARTZ SAND, CHALKY, MEDIUM RECRYSTALLIZATION, MOLLUSKS,

MIXTURE OF A CHALKY WHITE LIMESTONE AND A WELL INDURATED LIGHT BROWN LIMESTONE WITH QUARTZ AND PHOSPHATE INTERCLASTS

400.0- 410.0 AS ABOVE,

LITHOLOGIC LOG
W-OKF42 . HIGHLANDS CO. T34S, R31E, SEC 23

410.0- 420.0 LIMESTONE, WHITE TO VERY LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, CHALKY, BENTHONIC FORAMINIFERA, BRYOZOA,

FIRST OCCURRENCE OF LEPIDOCYLINA SP.

420.0- 430.0 AS ABOVE,

WITH NUMULITES SP.

430.0- 440.0 LIMESTONE, WHITE, POROSITY, LOW PERMEABILITY, GRAIN TYPE: CALCILUTITE, BIOGENIC, 05% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, POOR INDURATION, CHALKY, BENTHONIC FORAMINIFERA, BRYOZOA,

EXTREMFY CHALKY

440.0- 450.0 LIMESTONF, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, INTRACLASTS, CALCILUTITE, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, CHALKY, BENTHONIC FORAMINIFERA, BRYOZOA,

LEPIDOCYLINA OCALANA

450.0- 460.0 AS ABOVE,

460.0- 470.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, INTRACLASTS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, COQUINA, CHALKY, BENTHONIC FORAMINIFERA, BRYOZOA, MOLLUSKS,

LEP HASH

470.0- 520.0 AS ABOVE,

520.0- 530.0 LIMESTONE, WHITE TO VERY LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, 85% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: COARSE, RANGE: FINE TO VERY COARSE, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CLAY MATRIX, CHALKY, COQUINA, BENTHONIC FORAMINIFERA, BRYOZOA,

OPERCULINOIDES SP.
MANY LEPS ARE REPLACED WITH BLACK (ORGANIC OR PHOSPHATIC)MATERIAL

530.0- 580.0 AS ABOVE,

LITHOLOGIC LOG
W-OKF42 . HIGHLANDS CO. T34S, R31E, SEC 23

580.0- 590.0 LIMESTONE, VERY LIGHT GRAY TO VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: VERY FINE TO COARSE, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, LOW RECRYSTALLIZATION, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA, WORM TRACES, CONES,

FIRST OCCURRENCE OF DICTYOCONUS SP.
ECHINOIDS REPLACED BY BLOCKY SPARRY CALCITE

590.0- 600.0 LIMESTONE, VERY LIGHT ORANGE TO VERY LIGHT GRAY, POROSITY, INTERGRANULAR, VUGULAR, POSSIBLY HIGH PERMEABILITY, GRAIN TYPE: CRYSTALS, CALCILUTITE, BIOGENIC, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: VERY FINE TO COARSE, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CHALKY, LOW RECRYSTALLIZATION, ECHINOID, CONES, BENTHONIC FORAMINIFERA, BRYOZOA, WORM TRACES,

600.0- 620.0 AS ABOVE,

620.0- 630.0 LIMESTONE, VERY LIGHT ORANGE, POROSITY, VUGULAR, PIN POINT VUGS, GRAIN TYPE: CALCILUTITE, CRYSTALS, 30% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, ECHINOID, BENTHONIC FORAMINIFERA,

630.0- 660.0 AS ABOVE,

660.0- 670.0 LIMESTONE, VERY LIGHT ORANGE, POROSITY, PIN POINT VUGS, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, IK% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, ECHINOID, BENTHONIC FORAMINIFERA, CONES, BRYOZOA,

670.0- 710.0 AS ABOVE,

710.0- 720.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH ORANGE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CRYSTALS, BIOGENIC, CALCILUTITE, 30% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CHALKY, LOW RECRYSTALLIZATION, CONES, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA,

720.0- 730.0 LIMESTONE, GRAYISH BROWN TO GRAYISH ORANGE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, SPARRY CALCITE CEMENT, DOLOMITE CEMENT, 01% QUARTZ SAND, DOLOMITIC, CHALKY, CONES, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA,

LITHOLOGIC LOG
W-OKF42 . HIGHLANDS CO. T34S, R31E, SEC 23

730.0- 740.0 LIMESTONE, VERY LIGHT GRAY TO VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, SPARRY CALCITE CEMENT, 01% QUARTZ SAND, CHALKY, CONES, BENTHONIC FORAMINIFERA, BRYOZOA,

740.0- 750.0 LIMESTONE, VERY LIGHT GRAY TO LIGHT OLIVE GRAY, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, SPARRY CALCITE CEMENT, CLAY MATRIX, 03% CLAY, 01% QUARTZ SAND, CHALKY, CONES, BENTHONIC FORAMINIFERA, BRYOZOA,

750.0- 760.0 LIMESTONE, VERY LIGHT GRAY TO MODERATE GRAY, POROSITY, INTERGRANULAR, VUGULAR, LOW PERMEABILITY, GRAIN TYPE: CRYSTALS, CALCILUTITE, 10% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, SPARRY CALCITE CEMENT, CLAY MATRIX, 05% CLAY, 02% QUARTZ SAND, CHALKY, CONES, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA,

760.0- 770.0 LIMESTONE, VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CHALKY, CONES, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA,

770.0- 790.0 AS ABOVE,

790.0- 800.0 DOLOMITE, GRAYISH BROWN TO MODERATE YELLOWISH BROWN, POROSITY, INTERGRANULAR, FRACTURE, POSSIBLY HIGH PERMEABILITY, 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, BENTHONIC FORAMINIFERA, BRYOZOA,

800.0- 810.0 LIMESTONE, WHITE TO VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, BIOGENIC, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CHALKY, DOLOMITIC, LOW RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

810.0- 820.0 LIMESTONE, WHITE TO VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: CRYSTALS, CALCILUTITE, BIOGENIC, 20% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CHALKY, DOLOMITIC, LOW RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA, CONES,

820.0- 860.0 AS ABOVE,

LITHOLOGIC LOG
W-OKF42 . HIGHLANDS CO. T34S, R31E, SEC 23

860.0- 870.0 LIMESTONE, VERY LIGHT GRAY TO MODERATE LIGHT GRAY, POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: CRYSTALS, CALCILUTITE, BIOGENIC, 20% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CHALKY, DOLOMITIC, LOW RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA, CONES,

870.0- 880.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH BROWN, POROSITY, INTERGRANULAR, PIN POINT VUGS, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CHALKY, DOLOMITIC, MEDIUM RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA, CONES,

880.0- 890.0 LIMESTONE, VERY LIGHT GRAY TO MODERATE LIGHT GRAY, POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: CRYSTALS, CALCILUTITE, BIOGENIC, 20% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CHALKY, DOLOMITIC, LOW RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA, CONES,

890.0- 900.0 DOLOMITE, GRAYISH ORANGE TO GRAYISH BROWN, POROSITY, PIN POINT VUGS, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, DOLOMITIC, LOW RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA, CONES,

ABUNDANT SMALL FRAGMENTS OF ECHNOIDS SPINES, AND OTHER BIOGENIC MATERIAL

900.0- 910.0 LIMESTONE, WHITE TO VERY LIGHT GRAY, POPOSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, BIOGENIC, 15% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, CONES, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA,

DOLOMITE, VERY LIGHT ORANGE TO GRAYISH BROWN, POROSITY, INTERGRANULAR, FRACTURE, VUGULAR, 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, CONES, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA,

910.0- 920.0 AS ABOVE,

920.0- 930.0 LIMESTONE, VERY LIGHT GRAY TO LIGHT GRAY, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, BIOGENIC, 10% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, CONES, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA,

LITHOLOGIC LOG
W-OKF42 . HIGHLANDS CO. T34S, R31E, SEC 23

930.0- 940.0 DOLOMITE, GRAYISH ORANGE TO GRAYISH BROWN, POROSITY, INTERGRANULAR, VUGULAR, 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, MEDIUM RECRYSTALLIZATION, CONES, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA,

ABUNDANT DOLOMITIZED LOOSELY CEMENTED BENTHONIC FORAMS

940.0- 980.0 AS ABOVE,

980.0- 990.0 DOLOMITE, MODERATE YELLOWISH BROWN TO GRAYISH ORANGE, POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, POOR INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, 03% QUARTZ SAND, CHALKY, CONES, BENTHONIC FORAMINIFERA, BRYOZOA, ALGAE,

990.0- 1000.0 AS ABOVE,

1000.0- 1010.0 DOLOMITE, GRAYISH BROWN TO MODERATE YELLOWISH BROWN, POROSITY, VUGULAR, INTERGRANULAR, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, 02% QUARTZ SAND, MEDIUM RECRYSTALLIZATION, CONES, BENTHONIC FORAMINIFERA, BRYOZOA, ALGAE,

1010.0- 1040.0 AS ABOVE,

1040.0- 1050.0 LIMESTONE, VERY LIGHT GRAY TO VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, CALCILUTITE, BIOGENIC, 20% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, MEDIUM RECRYSTALLIZATION, CONES, BENTHONIC FORAMINIFERA,

ABUNDANT CONES WITH WORN TESTS

1050.0- 1060.0 AS ABOVE,

1060.0- 1070.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH ORANGE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC, 10% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, MEDIUM RECRYSTALLIZATION, CONES, BENTHONIC FORAMINIFERA,

1070.0- 1090.0 AS ABOVE,

CAVINGS FROM OCALA

1090.0- 1100.0 LIMESTONE, VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, 20% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, POOR INDURATION, CHALKY, CONES, ECHINOID, BENTHONIC FORAMINIFERA,

LITHOLOGIC LOG
W-OKF42 . HIGHLANDS CO. T34S, R31E, SEC 23

1100.0- 1110.0 LIMESTONE, WHITE TO VERY LIGHT GRAY, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, 10% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, POOR INDURATION, CHALKY, CONES, ECHINOID, BENTHONIC FORAMINIFERA,

1110.0- 1130.0 AS ABOVE,

1130.0- 1140.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH ORANGE, POROSITY, INTERGRANULAR, VUGULAR, 10-50% ALTERED, ANHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, MODERATE INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, MEDIUM RECRYSTALLIZATION, CONES, BENTHONIC FORAMINIFERA,

1140.0- 1150.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH ORANGE, POROSITY, INTERGRANULAR, VUGULAR, 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, MODERATE INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, MEDIUM RECRYSTALLIZATION, CONES, BENTHONIC FORAMINIFERA,

1150.0- 1160.0 DOLOMITE, MODERATE YELLOWISH BROWN TO DARK YELLOWISH BROWN, POROSITY, INTERGRANULAR, FRACTURE, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, HIGH RECRYSTALLIZATION,

1160.0- 1180.0 FROM 1160 TO 1180 IS A FINE, UNCONSOLIDATED DOLOSILT. THIS FINE MATERIAL WAS CLOGGING THE DRILL RODS. CAVED IN BACK TO 1152 WHEN GEOPHYSICALLY LOGGED

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W-OSF50

OSCEOLA CO. T27S R32E SEC 33 N W
TOTAL DEPTH- 1035 FT. ELEV.- FT. SAMPLES- 0- 1035 FT.
COMPLETED- 82.07.01 DEPTH WORKED FT.

WELL NAME-
GOLDEN BOUGH CITRUS GROVES, A.H. MAROUARDT DRILLING CO.
REMARKS-
WORKED BY JON E. SHAW, MARCH 30, 1982
EXCELLENT SAMPLES

LITHOLOGIC LOG
W-OSF50 . OSCEOLA CO. T27S, R32E, SEC 33

0.0- 10.0 SAND, GRAYISH BROWN, POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, SUB-ANGULAR, UNCONSOLIDATED, IRON CEMENT, ORGANIC MATRIX,

10.0- 20.0 SAND, GRAYISH BROWN, POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, SUB-ANGULAR, ANGULAR, UNCONSOLIDATED, IRON CEMENT, ORGANIC MATRIX,

20.0- 30.0 SAND, LIGHT GRAYISH BROWN, POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: VERY FINE TO COARSE, SUB-ANGULAR, ROUNDED, UNCONSOLIDATED, IRON CEMENT, ORGANIC MATRIX, 01% HEAVY MINERALS,

30.0- 40.0 SAND, DARK YELLOWISH BROWN, POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, SUB-ANGULAR, UNCONSOLIDATED, IRON CEMENT,

40.0- 50.0 CLAY, OLIVE GRAY TO LIGHT OLIVE GRAY, POROSITY, LOW PERMEABILITY, CLAY MATRIX, 05% QUARTZ, CALCAREOUS, PLASTIC,

50.0- 60.0 CLAY, MODERATE BLUISH GRAY, POROSITY, LOW PERMEABILITY, CLAY MATRIX, 02% QUARTZ, CALCAREOUS, PLASTIC, SPLINTERY, FOSSIL FRAGMENTS,

60.0- 70.0 SAND, GREENISH BLACK TO VERY LIGHT GRAY, POROSITY, LOW PERMEABILITY, GRAIN SIZE: COARSE, RANGE: MICROCRYSTALLINE TO COARSE, SUB-ANGULAR, ANGULAR, UNCONSOLIDATED, CLAY MATRIX, CALCAREOUS, FOSSIL FRAGMENTS, FOSSIL MOLDS,

PERMEABILITY RETARDED BY HIGH CLAY CONTENT

70.0- 80.0 CLAY, LIGHT OLIVE GRAY TO VERY LIGHT GRAY, POROSITY, LOW PERMEABILITY, CLAY MATRIX, 05% QUARTZ, 01% PHOSPHATIC SAND, CALCAREOUS, FOSSIL FRAGMENTS,

80.0- 90.0 AS ABOVE,

THIN SHELL BED

LITHOLOGIC LOG
W-OSF50 . OSCEOLA CO. T27S, R32E, SEC 33

90.0- 100.0 SAND, OLIVE GRAY TO LIGHT OLIVE GRAY, POROSITY, LOW PERMEABILITY, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, UNCONSOLIDATED, CLAY MATRIX, CALCILUTITE MATRIX, CALCAREOUS, FOSSIL FRAGMENTS,

100.0- 170.0 AS ABOVE,

170.0- 180.0 SAND, LIGHT OLIVE GRAY, POROSITY, LOW PERMEABILITY, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, UNCONSOLIDATED, CLAY MATRIX, 01% PHOSPHATIC SAND, CALCAREOUS, PLASTIC,

180.0- 190.0 AS ABOVE,

COARSE SUBROUNDED PHOSPHATE

190.0- 200.0 AS ABOVE,

VERY PLASTIC
HIGH CLAY CONTENT

200.0- 210.0 SAND, OLIVE GRAY, POROSITY, LOW PERMEABILITY, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, UNCONSOLIDATED, CLAY MATRIX, 03% PHOSPHATIC SAND, CALCAREOUS, PLASTIC,

210.0- 220.0 SAND, OLIVE GRAY TO LIGHT OLIVE GRAY, POROSITY, LOW PERMEABILITY, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, UNCONSOLIDATED, CLAY MATRIX, 07% PHOSPHATIC SAND, CALCAREOUS,

220.0- 230.0 SAND, OLIVE GRAY TO DARK GREENISH GRAY, POROSITY, LOW PERMEABILITY, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, UNCONSOLIDATED, CLAY MATRIX, 15% PHOSPHATIC SAND, CALCAREOUS,

230.0- 240.0 SAND, LIGHT OLIVE GRAY TO OLIVE GRAY, POROSITY, LOW PERMEABILITY, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, UNCONSOLIDATED, CLAY MATRIX, 10% PHOSPHATIC SAND, CALCAREOUS, FOSSIL FRAGMENTS,

240.0- 250.0 LIMESTONE, YELLOWISH GRAY TO LIGHT OLIVE GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: INTRACLASTS, CALCILUTITE, SKELETAL CAST, 01% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MICROCRYSTALLINE, MODERATE INDURATION, CLAY MATRIX, CALCILUTITE MATRIX, 03% PHOSPHATIC SAND, DOLOMITIC, LOW RECRYSTALLIZATION, FOSSIL FRAGMENTS,

250.0- 260.0 LIMESTONE, YELLOWISH GRAY TO VERY LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: INTRACLASTS, CRYSTALS, CALCILUTITE, 05% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, CLAY MATRIX, CALCILUTITE MATRIX, 03% PHOSPHATIC SAND, 02% HEAVY MINERALS, IRON STAIN,

LITHOLOGIC LOG
W-OSF50 . OSCEOLA CO. T27S, R32E, SEC 33

260.0- 270.0 LIMESTONE, YELLOWISH GRAY TO VERY LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, INTRACLASTS, 05% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, POOR INDURATION, CALCILUTITE MATRIX, IRON CEMENT, 03% PHOSPHATIC SAND, 02% HEAVY MINERALS, IRON STAIN,

270.0- 280.0 AS ABOVE,

280.0- 290.0 LIMESTONE, LIGHT BLUISH GRAY TO MODERATE BLUISH GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, 03% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: CRYPTOCRYSTALLINE TO FINE, MODERATE INDURATION, CALCILUTITE MATRIX, IRON CEMENT, 02% PHOSPHATIC SAND, IRON STAIN, DOLOMITIC, LOW RECRYSTALLIZATION,

290.0- 300.0 LIMESTONE, VERY LIGHT GRAY TO WHITE, POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: CALCILUTITE, GRAIN SIZE: MICROCRYSTALLINE, POOR INDURATION, CALCILUTITE MATRIX, 02% PHOSPHATIC SAND, FOSSIL FRAGMENTS,

SAND, WHITE, GRAIN SIZE: COARSE, RANGE: MEDIUM TO VERY COARSE, SUB-ANGULAR, ROUNDED, UNCONSOLIDATED, 02% HEAVY MINERALS, 01% IRON STAIN, 02% PHOSPHATIC SAND, DOLOMITIC,

300.0- 320.0 AS ABOVE,

SHARK TOOTH

320.0- 330.0 LIMESTONE, POROSITY, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, 03% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, POOR INDURATION, CALCILUTITE MATRIX, 01% PHOSPHATIC SAND, 03% QUARTZ SAND, CHALKY, FOSSIL FRAGMENTS,

330.0- 340.0 SAND, POROSITY, VUGULAR, GRAIN SIZE: COARSE, RANGE: FINE TO MEDIUM, ROUNDED, UNCONSOLIDATED, 20% PHOSPHATIC SAND, SHARK TEETH,

PHOSPHATIC SAND WITH SHARKS TEETH, BONE FRAGMENTS

340.0- 350.0 AS ABOVE,

350.0- 360.0 LIMESTONE, WHITE TO MODERATE LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 05% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 02% PHOSPHATIC SAND, 01% QUARTZ SAND, CHALKY, BENTHONIC FORAMINIFERA,

FIRST OCCURRENCE LEPIDOCYCLINA SP.

LITHOLOGIC LOG
W-OSF50 . OSCEOLA CO. T27S, R32E, SEC 33

360.0- 370.0 LIMESTONE, WHITE TO MODERATE LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 05% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 01% PHOSPHATIC SAND, 02% QUARTZ SAND, CHALKY, BENTHONIC FORAMINIFERA,

370.0- 380.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 05% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 01% PHOSPHATIC SAND, 01% QUARTZ SAND, CHALKY, BENTHONIC FORAMINIFERA, BRYOZOA,

380.0- 390.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS, 05% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, CALCILUTITE MATRIX, 02% PHOSPHATIC SAND, 01% QUARTZ SAND, CHALKY, BENTHONIC FORAMINIFERA,

390.0- 400.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS, 05% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, CALCILUTITE MATRIX, 01% PHOSPHATIC SAND, 01% QUARTZ SAND, CHALKY, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

FIRST OCCURRENCE OF DICTYCONUS SP.
*** ERROR - WELL NUMBER HAS CHANGED

400.0- 410.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: COARSE, RANGE: MICROCRYSTALLINE TO VERY COARSE, POOR INDURATION, CALCILUTITE MATRIX, CHALKY, COQUINA, CONES, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

410.0- 500.0 AS ABOVE,

500.0- 510.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS, 40% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: COARSE, RANGE: MICROCRYSTALLINE TO VERY COARSE, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 01% QUARTZ SAND, CHALKY, COQUINA, CONES, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

510.0- 560.0 AS ABOVE,

560.0- 570.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, 35% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO VERY COARSE, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 02% QUARTZ SAND, 01% PHOSPHATIC SAND, CHALKY, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

LITHOLOGIC LOG
W-05F50 . OSCEOLA CO. T27S, R32E, SEC 33

570.0- 610.0 AS ABOVE,

610.0- 620.0 DOLOMITE, VERY LIGHT GRAY TO VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, ANHEDRAL, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 01% QUART7 SAND, LOW RECRYSTALLIZATION, CONES, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

620.0- 630.0 AS ABOVE,

630.0- 640.0 LIMESTONE, VERY LIGHT GRAY TO WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, 30% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO VERY COARSE, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA, ECHINOID, BRYOZOA,

640.0- 700.0 AS ABOVE,

700.0- 710.0 DOLOMITE, GRAYISH BROWN TO VERY LIGHT GRAY, POROSITY, INTERGRANULAR, FRACTURE, 10-50% ALTERED, ANHEDRAL, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 01% QUARTZ SAND, ECHINOID, BENTHONIC FORAMINIFERA, CONES, BRYOZOA,

710.0- 720.0 LIMESTONE, VERY LIGHT GRAY TO WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: CALCILUTITE, CRYSTALS, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO VERY COARSE, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, DOLOMITIC, ECHINOID, BENTHONIC FORAMINIFERA, CONES, BRYOZOA,

720.0- 730.0 AS ABOVE,

730.0- 740.0 DOLOMITE, GRAYISH BROWN TO VERY LIGHT GRAY, POROSITY, INTERGRANULAR, FRACTURE, 10-50% ALTERED, ANHEDRAL, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CONES, ECHINOID, BRYOZOA, BENTHONIC FORAMINIFERA,

740.0- 760.0 AS ABOVE,

760.0- 770.0 DOLOMITE, DARK YELLOWISH BROWN TO MODERATE YELLOWISH BROWN, POROSITY, INTERGRANULAR, FRACTURE, POSSIBLY HIGH PERMEABILITY, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, 02% IRON STAIN, HIGH RECRYSTALLIZATION, CONES, BENTHONIC FORAMINIFERA,

HARD WELL INDURATED DOLOMITE

LITHOLOGIC LOG
W-OSF50 . OSCEOLA CO. T27S, R32E, SEC 33

770.0- 780.0 DOLOMITE, GRAYISH BROWN TO MODERATE YELLOWISH BROWN, POROSITY, INTERGRANULAR, FRACTURE, POSSIBLY HIGH PERMEABILITY, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, HIGH RECRYSTALLIZATION,

780.0- 790.0 AS ABOVE,

790.0- 800.0 DOLOMITE, GRAYISH BROWN TO MODERATE YELLOWISH BROWN, POROSITY, INTERGRANULAR, FRACTURE, POSSIBLY HIGH PERMEABILITY, 90-100% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CONES, BRYOZOA,

800.0- 830.0 AS ABOVE,

830.0- 840.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH BROWN, POROSITY, INTERGRANULAR, FRACTURE, POSSIBLY HIGH PERMEABILITY, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, GOOD INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, HIGH RECRYSTALLIZATION, CONES, BRYOZOA, BENTHONIC FORAMINIFERA,

840.0- 1030.0 AS ABOVE,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W-OSF52

OSCEOLA CO. T31S R31E SEC 11NW 27 48 06 N 81 11 55 W
TOTAL DEPTH- 880 FT. ELEV.- FT. SAMPLES- 0- 880 FT.
COMPLETED- 82.05.18 DEPTH WORKED 880 FT.

WELL NAME-
S65- SFWMD EXPLORATORY WELL- ALVIN WOOSTER, DRILLER
REMARKS-
CUTTINGS COLLECTED AND DESCRIBED BY
JON SHAW, SFWMD, MAY 31, 1982
GEOPHYSICAL LOGS AVAILABLE

HYDROGEOLOGIC UNITS

0.0-	170.0	SHALLOW AQUIFER SYSTEM
170.0-	230.0	HAWTHORN CONFINING BEDS
230.0-	880.0	FLORIDAN AQUIFER SYSTEM

STRATIGRAPHIC FORMATIONS -

0.0-	172.0	UNDIFFERENTIATED SAND, CLAY AND SHELLS
172.0-	280.0	HAWTHORN FORMATION
280.0-	370.0	OCALA GROUP
370.0-	880.0	AVON PARK LIMESTONE

LITHOLOGIC LOG
W-OSF52 . OSCEOLA CO. T31S, R31E, SEC 11NW

0.0- 20.0 SAND, GRAYISH BROWN, POROSITY, INTERGRANULAR, MOLDIC, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, UNCONSOLIDATED, IRON CEMENT, ORGANIC MATRIX, PHOSPHATIC SAND, HEAVY MINERALS, IRON STAIN, FOSSIL FRAGMENTS,

20.0- 40.0 SHELL BED, VERY LIGHT GRAY TO OLIVE GRAY, POROSITY, MOLDIC, INTERGRANULAR, UNCONSOLIDATED, IRON CEMENT, CALCILUTITE MATRIX, PHOSPHATIC SAND, QUARTZ SAND, CALCAREOUS, FOSSIL MOLDS, MOLLUSKS,

40.0- 60.0 SHELL BED, VERY LIGHT GRAY TO LIGHT OLIVE GRAY, POROSITY, MOLDIC, UNCONSOLIDATED, CLAY MATRIX, QUARTZ SAND, MOLLUSKS, FOSSIL MOLDS,

0-60 FEET IS FILL MATERIAL

60.0- 80.0 SAND, OLIVE GRAY, POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, ANGULAR, SUB-ANGULAR, UNCONSOLIDATED, CLAY MATRIX, ORGANIC MATRIX, NO FOSSIL,

80.0- 100.0 SAND, GRAYISH OLIVE GREEN, POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, SUB-ANGULAR, ROUNDED, UNCONSOLIDATED, CLAY MATRIX, 01% PHOSPHATIC SAND, CALCAREOUS, NO FOSSIL,

LITHOLOGIC LOG
W-OSF52 . OSCEOLA CO. T31S, R31E, SEC 11NW

100.0- 120.0 SHELL BED, VERY LIGHT GRAY TO LIGHT OLIVE GRAY, POROSITY, MOLDIC, INTERGRANULAR, UNCONSOLIDATED, CLAY MATRIX, 25% QUARTZ SAND, CALCAREOUS, MOLLUSKS, FOSSIL MOLDS, FOSSIL FRAGMENTS, WORM TRACES,

120.0- 140.0 SAND, GRAYISH OLIVE, POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO GRANULE, ROUNDED, SUB-ANGULAR, UNCONSOLIDATED, CLAY MATRIX, 03% PHOSPHATIC SAND, CALCAREOUS, FOSSIL FRAGMENTS,

140.0- 170.0 AS ABOVE,

170.0- 172.0 SANDSTONE, MODERATE GRAY TO MODERATE DARK GRAY, POROSITY, INTERGRANULAR, VUGULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, MODERATE INDURATION, SILICIC CEMENT, 05% PHOSPHATIC SAND, NO FOSSIL,

WELL INDURATED PHOSPHATIC SANDSTONE
POSSIBLY GOOD AQUIFER

172.0- 180.0 LIMESTONE, VERY LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: CRYSTALS, 02% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 07% PHOSPHATIC SAND, 05% QUARTZ SAND, MOLLUSKS, BRYOZOA,

180.0- 200.0 LIMESTONE, LIGHT OLIVE GRAY TO LIGHT GRAY, POROSITY, INTERGRANULAR, MOLDIC, 02% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 10% PHOSPHATIC SAND, 03% QUARTZ SAND, BRYOZOA, CORAL, WORM TRACES, MOLLUSKS,

200.0- 220.0 LIMESTONE, LIGHT GRAY TO MODERATE LIGHT GRAY, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: CRYSTALS, CALCILUTITE, 02% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 25% PHOSPHATIC SAND, FOSSIL MOLDS,

LARGE ROUNDED PHOSHATE PEBBLES

220.0- 240.0 AS ABOVE,

240.0- 260.0 LIMESTONE, MODERATE GRAY TO MODERATE DARK GRAY, POROSITY, INTERGRANULAR, VUGULAR, MOLDIC, GRAIN TYPE: CRYSTALS, CALCILUTITE, 10% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 30% PHOSPHATIC SAND, 10% QUARTZ SAND, SHARK TEETH, FOSSIL FRAGMENTS, FOSSIL MOLDS,

LITHOLOGIC LOG
W-OSF52 . OSCEOLA CO. T31S, R31E, SEC 11NW

260.0- 280.0 LIMESTONE, WHITE TO VERY LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 15% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 01% PHOSPHATIC SAND, 03% QUARTZ SAND, CHALKY, BENTHONIC FORAMINIFERA, BRACHIOPOD, BRYOZOA, MOLLUSKS,

FIRST OCCURRENCE OF LEPIDOCYCLINA SP.

280.0- 300.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: MICROCRYSTALLINE TO COARSE, POOR INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, BENTHONIC FORAMINIFERA, BRYOZOA, MOLLUSKS,

LEP HASH
NUMMULITIES SP.

300.0- 340.0 AS ABOVE,

340.0- 360.0 MANY LARGE LEPIDOCYLLINA OCALANA (20 MM DIA)

360.0- 370.0 LIMESTONE, WHITE TO VERY LIGHT GRAY, POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 30% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO COARSE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CHALKY, CONES, BENTHONIC FORAMINIFERA, ECHINOID, MOLLUSKS,

FIRST OCCURRENCE OF DICTYOCONUS SP.
ECHINOIDS REPLACED BY BLOCKY SPARRY CALCITE

370.0- 380.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, VUGULAR, POSSIBLY HIGH PERMEABILITY, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 50% ALLOCHEMICAL CONSTITUENTS, MODERATE INDURATION, CONES, BENTHONIC FORAMINIFERA, ECHINOID, MOLLUSKS, BRYOZOA,

380.0- 420.0 AS ABOVE,

420.0- 440.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 25% ALLOCHEMICAL CONSTITUENTS, MODERATE INDURATION, CHALKY, CONES, BENTHONIC FORAMINIFERA, BRYOZOA,

440.0- 460.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 30% ALLOCHEMICAL CONSTITUENTS, MODERATE INDURATION, CHALKY, CONES, ECHINOID, BENTHONIC FORAMINIFERA, BRYOZOA, SPICULES,

460.0- 580.0 AS ABOVE,

LITHOLOGIC LOG
W-OSF52 . OSCEOLA CO. T31S, R31E, SEC 11NW

580.0- 590.0 DOLOMITE, GRAYISH BROWN, POROSITY, INTERGRANULAR, FRACTURE, POSSIBLY HIGH PERMEABILITY, 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, DOLOMITE CEMENT, BENTHONIC FORAMINIFERA, CONES,

590.0- 600.0 AS ABOVE,

600.0- 620.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 10% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CHALKY, BRYOZOA, SPICULES, CONES,

620.0- 640.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 20% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, DOLOMITIC, CHALKY, CONES, BENTHONIC FORAMINIFERA, BRYOZOA,

640.0- 660.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH BROWN, POROSITY, INTERGRANULAR, 10-50% ALTERED, ANHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, DOLOMITE CEMENT, MEDIUM RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, ECHINOID, CONES,

660.0- 680.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 15% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, DOLOMITIC, BENTHONIC FORAMINIFERA, ECHINOID, CONES, SPICULES,

680.0- 760.0 AS ABOVE,

760.0- 780.0 DOLOMITE, VERY LIGHT ORANGE TO YELLOWISH GRAY, POROSITY, INTERGRANULAR, VUGULAR, 10-50% ALTERED, ANHEDRAL, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, CHALKY, MEDIUM RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, ECHINOID, CONES,

780.0- 800.0 POOR SAMPLES

800.0- 820.0 AS ABOVE,

820.0- 840.0 DOLOMITE, WHITE TO GRAYISH BROWN, POROSITY, INTERGRANULAR, VUGULAR, 10-50% ALTERED, ANHEDRAL, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, CHALKY, MEDIUM RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, ECHINOID, CONES,

LITHOLOGIC LOG
W-OSF52 . OSCEOLA CO. T31S, R31E, SEC 11NW

840.0- 860.0 DOLOMITE, MODERATE YELLOWISH BROWN TO DARK YELLOWISH BROWN, POROSITY, INTERGRANULAR, FRACTURE, POSSIBLY HIGH PERMEABILITY, 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, HIGH RECRYSTALLIZATION, NO FOSSIL,

TOP OF WELL CRYSTALLIZED, VERY HARD
DARK BROWN DOLOMITE

860.0- 870.0 DOLOMITE, DARK YELLOWISH BROWN TO MODERATE BROWN, 90-100% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, GOOD INDURATION, HIGH RECRYSTALLIZATION, VERTBRATE,

870.0- 880.0 AS ABOVE,

HIGHLY CRYSTALLIZED
FRATURE TRACES APPARENT

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W-OSF53

OSCEOLA CO. T27S R30E SEC 18 28 08 22 N 81 21 04 W
TOTAL DEPTH- 980 FT. ELEV.- FT. SAMPLES- 0- 980 FT.
COMPLETED- 82.06.24 DEPTH WORKED 980 FT.

WELL NAME-
S61- SFWMD EXPLORATORY WELL- ALVIN WOOSTER, DRILLER
REMARKS-
CUTTINGS COLLECTED AND DESCRIBED BY
JON SHAW, SFWMD, JUNE 30, 1982
GEOPHYSICAL LOGS AVAILABLE

HYDROGEOLOGIC UNITS

0.0-	80.0	SHALLOW AQUIFER SYSTEM
80.0-	160.0	HAWTHORN CONFINING BEDS
160.0-	770.0	FLORIDAN AQUIFER SYSTEM

STRATIGRAPHIC FORMATIONS -

0.0-	80.0	UNDIFFERENTIATED SAND, CLAY AND SHELLS
80.0-	170.0	HAWTHORN FORMATION
170.0-	260.0	OCALA GROUP
260.0-	980.0	AVON PARK LIMESTONE

LITHOLOGIC LOG
W-OSF53 . OSCEOLA CO. T27S, R30E, SEC 18

0.0- 10.0 SAND, LIGHT BROWN TO MODERATE BROWN, POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, ANGULAR, UNCONSOLIDATED, IRON CEMENT, ORGANIC MATRIX, 02% HEAVY MINERALS,

10.0- 20.0 AS ABOVE,

20.0- 30.0 SAND, LIGHT BROWN TO MODERATE BROWN, POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, ANGULAR, UNCONSOLIDATED, IRON CEMENT, ORGANIC MATRIX, 02% CLAY, 02% HEAVY MINERALS,

30.0- 40.0 SAND, LIGHT BROWN TO MODERATE BROWN, POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, SUB-ANGULAR, UNCONSOLIDATED, IRON CEMENT, ORGANIC MATRIX, 05% CLAY, 05% HEAVY MINERALS, PEAT,

40.0- 60.0 AS ABOVE,

60.0- 70.0 NO SAMPLE

70.0- 80.0 SAND, PINKISH GRAY TO OLIVE GRAY, POROSITY, INTERGRANULAR, LOW PERMEABILITY, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, SUB-ANGULAR, UNCONSOLIDATED, CLAY MATRIX, 05% HEAVY MINERALS,

LITHOLOGIC LOG
W-OSF53 . OSCEOLA CO. T27S, R30E, SEC 18

SHELL BED, WHITE, UNCONSOLIDATED, CALCAREOUS, MOLLUSKS,

80.0- 90.0 CLAY, PINKISH GRAY, POROSITY, LOW PERMEABILITY, UNCONSOLIDATED, CLAY MATRIX, 35% QUARTZ SAND,

SHELL BED, WHITE, UNCONSOLIDATED, CALCAREOUS, MOLLUSKS,

90.0- 100.0 SHELL BED, WHITE TO VERY LIGHT GRAY, POROSITY, MOLDIC, UNCONSOLIDATED, CLAY MATRIX, 05% HEAVY MINERALS, 15% QUARTZ SAND, MOLLUSKS,

100.0- 110.0 AS ABOVE,

110.0- 120.0 CLAY, LIGHT OLIVE GRAY, POROSITY, LOW PERMEABILITY, UNCONSOLIDATED, 40% QUARTZ SAND, CALCAREOUS, MOLLUSKS,

SHELL IS PROBABLY CAVING

120.0- 140.0 AS ABOVE.

SHELL IS STILL PRESENT

140.0- 150.0 SAND, GRAYISH OLIVE TO MODERATE GRAYISH GREEN, POROSITY, INTERGRANULAR, LOW PERMEABILITY, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO COARSE, UNCONSOLIDATED, CLAY MATRIX, 25% CLAY, 03% PHOSPHATIC SAND, CALCAREOUS, MOLLUSKS,

150.0- 160.0 AS ABOVE,

160.0- 170.0 AS ABOVE, WHITE TO VERY LIGHT GRAY, POROSITY, INTERGRANULAR, MOLDIC, POSSIBLY HIGH PERMEABILITY, GOOD INDURATION, CALCILUTITE MATRIX, SILICIC CEMENT, 10% QUARTZ SAND, 03% HEAVY MINERALS, COQUINA, BENTHONIC FORAMINIFERA, MOLLUSKS, BRYOZOA,

FIRST OCCURENCE OF LEPIDOCYCLINA SP.
A CONSOLIDATED COQUINA OF LEPS
GOOD AQUIFER, TOP OF FLORIDAN AQUIFER SYSTEM

170.0- 180.0 LIMESTONE, VERY LIGHT GRAY, POROSITY, INTERGRANULAR, VUGULAR, POSSIBLY HIGH PERMEABILITY, GRAIN TYPE: BIOGENIC, CRYSTALS, 40% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO VERY COARSE, GOOD INDURATION, SPARRY CALCITE CEMENT, BENTHONIC FORAMINIFERA, BRYOZOA, SPICULES,

180.0- 190.0 LIMESTONE, LIGHT GRAYISH GREEN TO VERY LIGHT GREEN, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO VERY COARSE, GOOD INDURATION, CALCILUTITE MATRIX, MILIOLIDS, MOLLUSKS, BRYOZOA, BENTHONIC FORAMINIFERA,

MILLIOLID LIMESTONE

LITHOLOGIC LOG
W-OSF53 . OSCEOLA CO. T27S, R30E, SEC 18

190.0- 200.0 AS ABOVE,

200.0- 210.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH ORANGE, POROSITY, INTERGRANULAR, VUGULAR, POSSIBLY HIGH PERMEABILITY, 10-50% ALTERED, ANHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, GOOD INDURATION, DOLOMITE CEMENT, CALCILUTITE MATRIX, HIGH RECRYSTALLIZATION, MILIOLIDS, MOLLUSKS, BRYOZOA, BENTHONIC FORAMINIFERA,

210.0- 220.0 AS ABOVE,

220.0- 230.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH ORANGE, POROSITY, INTERGRANULAR, VUGULAR, POSSIBLY HIGH PERMEABILITY, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, GOOD INDURATION, DOLOMITE CEMENT, COQUINA, CHALKY, MEDIUM RECRYSTALLIZATION, ECHINOID, BRYOZOA, BENTHONIC FORAMINIFERA, MILIOLIDS, WORM TRACES,

COQUINA OF DOLOMITIZED ECHNOIDS

230.0- 250.0 AS ABOVE,

EXTREMLY CHALKY

250.0- 260.0 DOLOMITE, GRAYISH ORANGE TO MODERATE YELLOWISH BROWN, POROSITY, INTERGRANULAR, VUGULAR, POSSIBLY HIGH PERMEABILITY, 90-100% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, MEDIUM RECRYSTALLIZATION, ECHINOID, CONES, MILIOLIDS, MOLLUSKS, BRYOZOA,

FIRST OCCURRENCE OF DICTYOCONUS SP.

260.0- 270.0 AS ABOVE,

NUMEROUS CONES

270.0- 280.0 DOLOMITE, GRAYISH ORANGE TO VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO COARSE, GOOD INDURATION, DOLOMITE CEMENT, CHALKY, LOW RECRYSTALLIZATION, ECHINOID, CONES, MILIOLIDS, MOLLUSKS, BRYOZOA,

280.0- 310.0 AS ABOVE,

310.0- 320.0 LIMESTONE, VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, 10% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, BENTHONIC FORAMINIFERA, BRYOZOA, MOLLUSKS,

LITHOLOGIC LOG
W-OSF53 . OSCEOLA CO. T27S, R30E, SEC 18

320.0- 330.0 DOLOMITE, POROSITY, INTERGRANULAR, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, DOLOMITE CEMENT, CHALKY, LOW RECRYSTALLIZATION, CONES, BENTHONIC FORAMINIFERA, BRYOZOA, MOLLUSKS,

330.0- 340.0 LIMESTONE, VERY LIGHT GRAY TO VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, PIN POINT VUGS, GRAIN TYPE: BIOGENIC, CALCILUTITE, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, MODERATE INDURATION, CHALKY, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA, ECHINOID, MOLLUSKS, BRYOZOA,

340.0- 350.0 AS ABOVE,

350.0- 360.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH ORANGE, POROSITY, INTERGRANULAR, VUGULAR, 90-100% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, HIGH RECRYSTALLIZATION, MILIOLIDS,

360.0- 370.0 AS ABOVE,

370.0- 380.0 LIMESTONE, VERY LIGHT GRAY TO VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, 10% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CLAY MATRIX, 10% CLAY, CHALKY, CONES, MILIOLIDS, BENTHONIC FORAMINIFERA, MOLLUSKS,

MAY ACT AS SEMI-CONFINING ZONE

380.0- 420.0 AS ABOVE,

420.0- 430.0 DOLOMITE, VERY LIGHT GRAY TO GRAYISH BROWN, POROSITY, FRACTURE, VUGULAR, POSSIBLY HIGH PERMEABILITY, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO COARSE, GOOD INDURATION, SPLINTERY, BENTHONIC FORAMINIFERA, MOLLUSKS,

430.0- 450.0 AS ABOVE,

450.0- 460.0 LIMESTONE, VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, 10% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, MODERATE INDURATION, CHALKY, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS, MILIOLIDS, ECHINOID,

460.0- 470.0 DOLOMITE, GRAYISH ORANGE TO MODERATE YELLOWISH BROWN, POROSITY, INTERGRANULAR, VUGULAR, POSSIBLY HIGH PERMEABILITY, 90-100% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO COARSE, GOOD INDURATION, HIGH RECRYSTALLIZATION, CONES, ECHINOID, BENTHONIC FORAMINIFERA,

LITHOLOGIC LOG
W-OSF53 . OSCEOLA CO. T27S, R30E, SEC 18

470.0- 520.0 AS ABOVE,

520.0- 530.0 DOLOMITE, VERY LIGHT GRAY TO MODERATE DARK GRAY, POROSITY, FRACTURE, POSSIBLY HIGH PERMEABILITY, 50-90% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, DOLOMITE CEMENT, HIGH RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, ECHINOID,

530.0- 540.0 DOLOMITE, VERY LIGHT GRAY TO MODERATE DARK GRAY, POROSITY, FRACTURE, POSSIBLY HIGH PERMEABILITY, 90-100% ALTERED, EUHEDRAL, GRAIN SIZE: VERY FINE, RANGE: MICROCRYSTALLINE TO MEDIUM, GOOD INDURATION, DOLOMITE CEMENT, HIGH RECRYSTALLIZATION, BENTHONIC FORAMINIFERA, ECHINOID,

EXTREMLY HARD, COMPLETELY RECRYSTALLIZED
DARK BROWN TO GRAY DOLOMITE
LARGE CUTTING SAMPLES, DENSE

540.0- 600.0 AS ABOVE,

600.0- 610.0 DOLOMITE, MODERATE YELLOWISH BROWN, POROSITY, INTERGRANULAR, VUGULAR, 90-100% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, GOOD INDURATION, DOLOMITE CEMENT, HIGH RECRYSTALLIZATION, MILIOLIDS,

MUCH SOFTER AND LESS CRYSTALLINE

610.0- 650.0 AS ABOVE,

650.0- 660.0 LIMESTONE, GRAYISH BROWN TO GRAYISH ORANGE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, MODERATE INDURATION, DOLOMITE CEMENT, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, MEDIUM RECRYSTALLIZATION, ECHINOID, BENTHONIC FORAMINIFERA, MOLLUSKS, CONES, BRYOZOA,

660.0- 670.0 DOLOMITE, MODERATE YELLOWISH BROWN, POROSITY, INTERGRANULAR, VUGULAR, 90-100% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, GOOD INDURATION, DOLOMITE CEMENT, HIGH RECRYSTALLIZATION, MILIOLIDS,

670.0- 680.0 DOLOMITE, MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE, POROSITY, VUGULAR, FRACTURE, POSSIBLY HIGH PERMEABILITY, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, GOOD INDURATION, CLAY MATRIX, CALCILUTITE MATRIX, HIGH RECRYSTALLIZATION, SUCROSIC, MILIOLIDS, FOSSIL MOLDS,

680.0- 800.0 AS ABOVE,

MIXTURE OF POROUS, VUGULAR DOLOMITE AND
VERY HARD FRACTURED DOLOMITE

LITHOLOGIC LOG
W-OSF53 . OSCEOLA CO. T27S, R30E, SEC 18

800.0- 890.0 AS ABOVE,

890.0- 900.0 LIMESTONE, WHITE, POROSITY, VUGULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS, 25% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, DOLOMITE CEMENT, CHALKY, WORM TRACES, FOSSIL MOLDS,

900.0- 910.0 DOLOMITE, GRAYISH BROWN TO VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, VUGULAR, 10-50% ALTERED, FIBROUS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, HIGH RECRYSTALLIZATION, SUCROSIC, MILIOLIDS, FOSSIL MOLDS, WORM TRACES,

910.0- 980.0 AS ABOVE,

SOUTH FLORIDA WMD - LITHO LOG PRINTOUT

W-POF20

POLK CO. T32S R32E SEC 28 27 39 58 N 81 08 06 W
TOTAL DEPTH- 1000 FT. ELEV.- FT. SAMPLES- 0- 1000 FT.
COMPLETED- 82.09.21 DEPTH WORKED 1000 FT.

WELL NAME-
S65A- SFWMD EXPLORATORY WELL- ALVIN WOOSTER, DRILLER
REMARKS-
CUTTINGS COLLECTED AND DESCRIBED BY
JON SHAW, SFWMD, OCTOBER,1982
GEOPHYSICAL LOGS AVAILABLE

HYDROGEOLOGIC UNITS

0.0-	148.0	SHALLOW AQUIFER SYSTEM
148.0-	278.0	HAWTHORN CONFINING BEDS
278.0-	1000.0	FLORIDAN AQUIFER SYSTEM

STRATIGRAPHIC FORMATIONS -

0.0-	148.0	UNDIFFERENTIATED SAND, CLAY AND SHELLS
148.0-	288.0	HAWTHORN FORMATION
288.0-	499.0	OCALA GROUP
490.0-	1000.0	AVON PARK LIMESTONE

LITHOLOGIC LOG
W-POF20 . POLK CO. T32S, R32E, SEC 28

0.0-	10.0	SAND, DARK YELLOWISH BROWN, POROSITY, INTERGRANULAR, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, ANGULAR, LOW SPHERICITY, UNCONSOLIDATED, ORGANIC MATRIX, HEAVY MINERALS, PEAT, FOSSIL FRAGMENTS,
10.0-	20.0	SAND, BLACK, POROSITY, INTERGRANULAR, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, SUB-ANGULAR, UNCONSOLIDATED, SILICIC CEMENT, 50% PEAT, FOSSIL FRAGMENTS, MOLLUSKS,
20.0-	30.0	SHELL BED, VERY LIGHT ORANGE TO LIGHT GRAYISH BROWN, POROSITY, INTERGRANULAR, MOLDIC, UNCONSOLIDATED, SILICIC CEMENT, 20% QUARTZ SAND, 02% PHOSPHATIC GRAVEL, CORAL, MOLLUSKS, WORM TRACES,
30.0-	40.0	SAND, LIGHT OLIVE GRAY, POROSITY, INTERGRANULAR, LOW PERMEABILITY, GRAIN SIZE: FINE, RANGE: VERY FINE TO COARSE, SUB-ANGULAR, UNCONSOLIDATED, CLAY MATRIX, 05% CLAY, 02% PHOSPHATIC GRAVEL, 01% PHOSPHATIC SAND,
40.0-	50.0	CLAY, LIGHT OLIVE GRAY, POROSITY, INTERGRANULAR, LOW PERMEABILITY, UNCONSOLIDATED, CLAY MATRIX, 02% PHOSPHATIC SAND, 25% QUARTZ SAND, NO FOSSIL,

LITHOLOGIC LOG
W-POF20 . POLK CO. T32S, R32E, SEC 28

50.0- 60.0 CLAY, OLIVE GRAY, POROSITY, INTERGRANULAR, LOW PERMEABILITY, UNCONSOLIDATED, CLAY MATRIX, 02% PHOSPHATIC SAND, NO FOSSIL,

60.0- 65.0 AS ABOVE,

65.0- 80.0 SANDSTONE, LIGHT GRAY TO MODERATE LIGHT GRAY, POROSITY, INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, MODERATE INDURATION, SILICIC CEMENT, 02% PHOSPHATIC SAND, FOSSIL FRAGMENTS,

80.0- 90.0 CLAY, OLIVE GRAY, POROSITY, INTERGRANULAR, LOW PERMEABILITY, UNCONSOLIDATED, CLAY MATRIX, 01% PHOSPHATIC SAND, 01% PHOSPHATIC GRAVEL, NO FOSSIL,

90.0- 133.0 AS ABOVE,

133.0- 140.0 SANDSTONE, LIGHT GRAY TO MODERATE GRAY, POROSITY, INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, GOOD INDURATION, SILICIC CEMENT, SPARRY CALCITE CEMENT, 05% PHOSPHATIC SAND, 20% PHOSPHATIC GRAVEL, MOLLUSKS,

140.0- 150.0 AS ABOVE,

150.0- 160.0 CLAY, VERY LIGHT GREEN TO LIGHT GRAY, POROSITY, LOW PERMEABILITY, UNCONSOLIDATED, CLAY MATRIX, 10% PHOSPHATIC SAND, 05% QUARTZ SAND, MOLLUSKS,

160.0- 170.0 CLAY, VERY LIGHT GREEN TO LIGHT GRAY, POROSITY, LOW PERMEABILITY, MOLDIC, UNCONSOLIDATED, CLAY MATRIX, 10% PHOSPHATIC SAND, 05% QUARTZ SAND, MOLLUSKS,

170.0- 185.0 AS ABOVE,

185.0- 200.0 LIMESTONE, LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, 10% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, POOR INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 25% PHOSPHATIC SAND, 10% QUARTZ SAND, MOLLUSKS,

SOFT, SANDY, PHOSPHATIC LIMESTONE

200.0- 210.0 AS ABOVE,

210.0- 220.0 LIMESTONE, VERY LIGHT GRAY TO MODERATE LIGHT GRAY, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, 10% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 25% PHOSPHATIC SAND, 25% PHOSPHATIC GRAVEL, MOLLUSKS, FOSSIL FRAGMENTS,

220.0- 228.0 AS ABOVE,

LITHOLOGIC LOG
W-POF20 . POLK CO. T32S, R32E, SEC 28

228.0- 240.0 CLAY, WHITE, POROSITY, LOW PERMEABILITY, POOR INDURATION, CALCILUTITE MATRIX, CLAY MATRIX, 10% PHOSPHATIC SAND, 07% QUARTZ SAND, MOLLUSKS,

240.0- 248.0 AS ABOVE,

248.0- 260.0 LIMESTONE, LIGHT GRAYISH GREEN TO LIGHT GREENISH GRAY, POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: SKELETAL, BIOGENIC, 10% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 03% PHOSPHATIC SAND, 05% QUARTZ SAND, MEDIUM RECRYSTALLIZATION, MOLLUSKS,

260.0- 270.0 AS ABOVE, MEDIUM RECRYSTALLIZATION,

270.0- 280.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: SKELETAL, BIOGENIC, 20% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 01% PHOSPHATIC SAND, 01% QUARTZ SAND, 01% DOLOMITE, CHALKY, MEDIUM RECRYSTALLIZATION,

280.0- 290.0 LIMESTONE, OLIVE GRAY TO LIGHT OLIVE GRAY, POROSITY, INTERGRANULAR, FRACTURE, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 20% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, GOOD INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, 01% PHOSPHATIC SAND, 03% DOLOMITE, MEDIUM RECRYSTALLIZATION, FOSSIL FRAGMENTS, MOLLUSKS,

290.0- 300.0 LIMESTONE, OLIVE GRAY TO LIGHT OLIVE GRAY, DOLOMITIC,

DOLOMITE, MODERATE YELLOWISH BROWN TO GRAYISH ORANGE, POROSITY, INTERGRANULAR, 10-50% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, MODERATE INDURATION, DOLOMITE CEMENT, 05% PHOSPHATIC SAND, MEDIUM RECRYSTALLIZATION, NO FOSSIL,

300.0- 310.0 LIMESTONE, VERY LIGHT GRAY TO WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 40% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, LOW RECRYSTALLIZATION, CHALKY, BENTHONIC FORAMINIFERA, MOLLUSKS,

FIRST OCCURRENCE OF LEPIDOCYCLINA SP.

310.0- 320.0 LIMESTONE, VERY LIGHT GRAY TO WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO VERY COARSE, MODERATE INDURATION, CHALKY, BENTHONIC FORAMINIFERA, MOLLUSKS, BRYOZOA,

MAINLY A COQUINA OF LERS

LITHOLOGIC LOG
W-POF20 . POLK CO. T32S, R32F, SEC 28

320.0- 380.0 AS ABOVE,

380.0- 390.0 LIMESTONE, VERY LIGHT ORANGE TO VERY LIGHT GRAY, POROSITY, INTERGRANULAR, MOLDIC, GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, 01% PHOSPHATIC SAND, BENTHONIC FORAMINIFERA, MOLLUSKS, BRYOZOA,

390.0- 400.0 LIMESTONE, WHITE TO VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, INTERCRYSTALLINE, GRAIN TYPE: CRYSTALS, CALCILUTITE, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, MODERATE INDURATION, SPARRY CALCITE CEMENT, BENTHONIC FORAMINIFERA, MOLLUSKS,

400.0- 410.0 LIMESTONE, WHITE TO VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, CHALKY, BENTHONIC FORAMINIFERA, BRYOZOA, MOLLUSKS,

410.0- 490.0 AS ABOVE,

490.0- 500.0 LIMESTONE, VERY LIGHT ORANGE TO GRAYISH ORANGE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: COARSE, RANGE: MEDIUM TO VERY COARSE, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, DOLOMITIC, MEDIUM RECRYSTALLIZATION, CONES, BENTHONIC FORAMINIFERA, MOLLUSKS, BRYOZOA, CORAL,

FIRST OCCURRENCE OF DICTYOCONUS SP.
NUMEROUS CONES

500.0- 510.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: BIOGENIC, CRYSTALS, 75% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, MEDIUM RECRYSTALLIZATION, CHALKY, CONES, BENTHONIC FORAMINIFERA, MILIOLIDS,

MILLIOLID LIMESTONE

510.0- 550.0 AS ABOVE,

550.0- 560.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, MODERATE INDURATION, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CHALKY, CONES, ECHINOID, BENTHONIC FORAMINIFERA, MILIOLIDS,

560.0- 580.0 AS ABOVE,

LITHOLOGIC LOG
W-POF20 . POLK CO. T32S, R32E, SEC 28

580.0- 590.0 LIMESTONE, WHITE TO VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, MODERATE INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CHALKY, DOLOMITIC, CONES, ECHINOID, BENTHONIC FORAMINIFERA, MILIOLIDS,

590.0- 600.0 AS ABOVE,

600.0- 610.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH BROWN, POROSITY, FRACTURE, INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, 50-90% ALTERED, ANHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, HIGH RECRYSTALLIZATION, NO FOSSIL,

HARD DOLOMITE
FOSSILS INDISCERNABLE

610.0- 620.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, 50% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, MODERATE INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, DOLOMITIC, CHALKY, MILIOLIDS, BENTHONIC FORAMINIFERA, CONES, SPICULES, MOLLUSKS,

620.0- 765.0 AS ABOVE,

765.0- 770.0 DOLOMITE, GRAYISH BROWN TO VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, FRACTURE, POSSIBLY HIGH PERMEABILITY, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MILIOLIDS, BRYOZOA,

770.0- 790.0 AS ABOVE,

790.0- 800.0 LIMESTONE, WHITE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, 35% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, MODERATE INDURATION, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CHALKY, CONES, BENTHONIC FORAMINIFERA, MILIOLIDS, BRYOZOA,

800.0- 810.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH ORANGE, POROSITY, INTERGRANULAR, VUGULAR, 50-90% ALTERED, SUBHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CONES, BENTHONIC FORAMINIFERA, MILIOLIDS,

NUMEROUS CONES

810.0- 850.0 AS ABOVE,

LITHOLOGIC LOG
W-POF20 . POLK CO. T32S, R32E, SEC 28

850.0- 860.0 LIMESTONE, WHITE TO VERY LIGHT ORANGE, POROSITY, INTERGRANULAR, VUGULAR, GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS, 35% ALLOCHEMICAL CONSTITUENTS, GRAIN SIZE: MEDIUM, RANGE: FINE TO COARSE, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, CHALKY, DOLOMITIC, CONES, BENTHONIC FORAMINIFERA, MILIOLIDS,

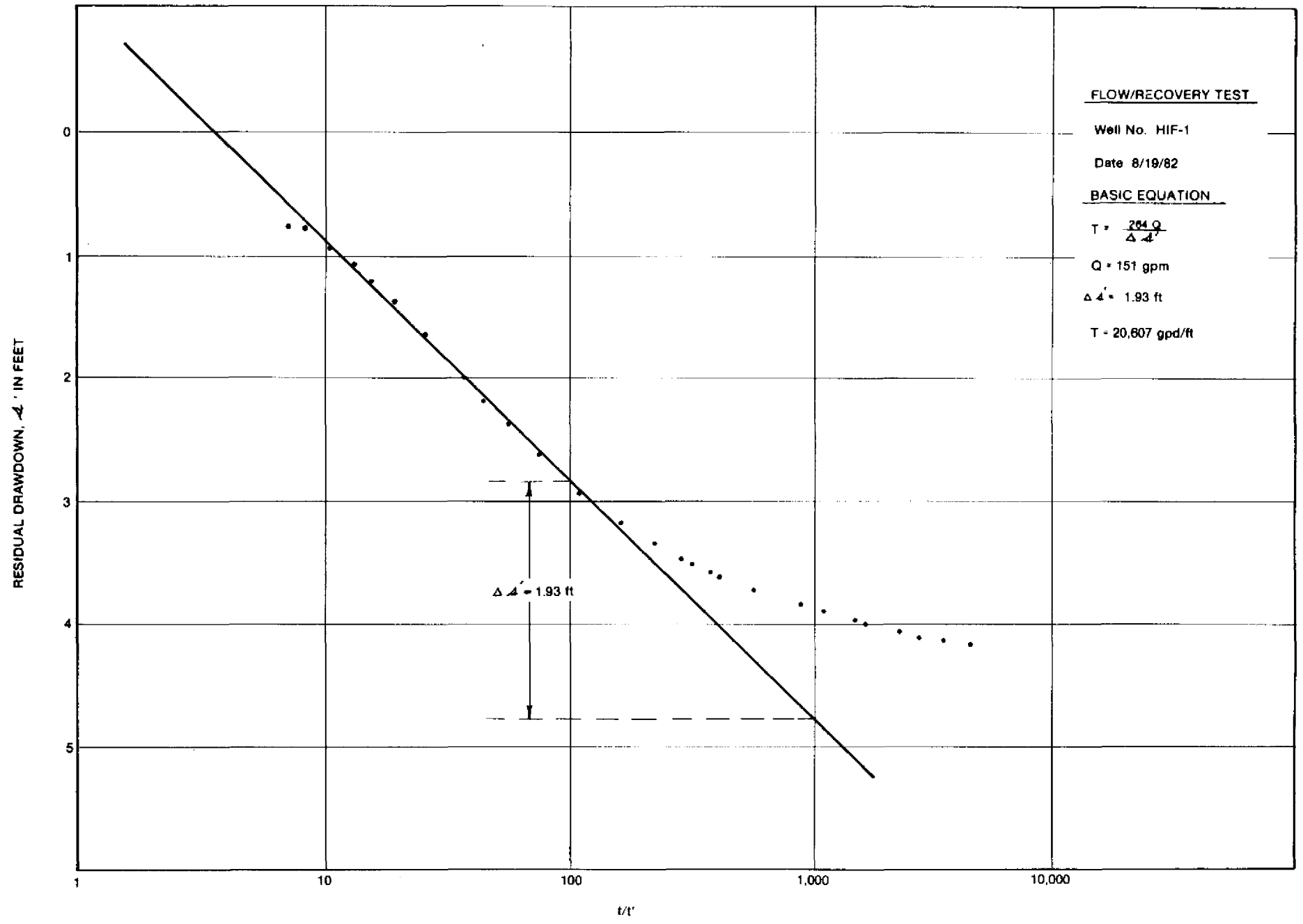
860.0- 930.0 AS ABOVE,

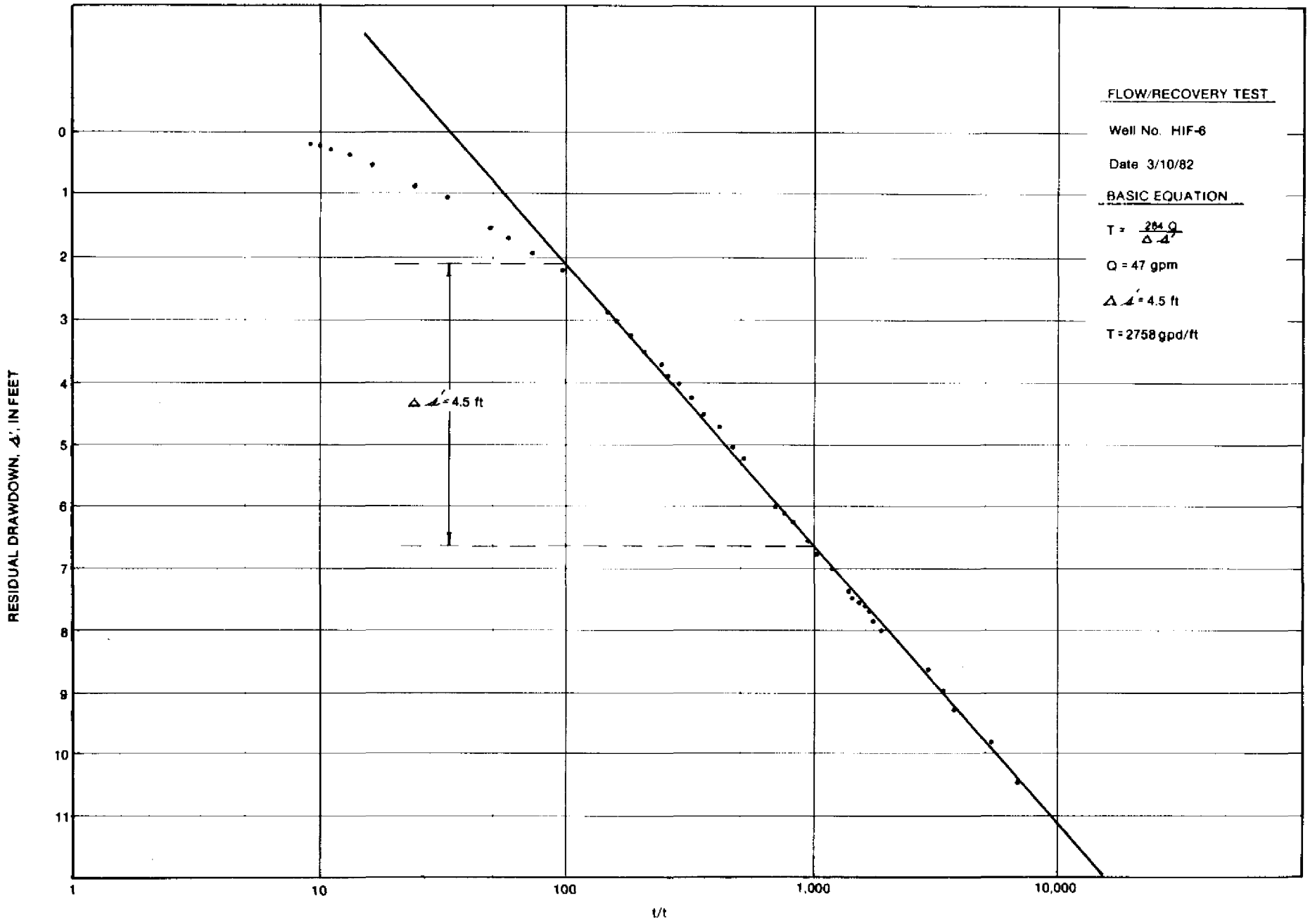
930.0- 940.0 DOLOMITE, VERY LIGHT ORANGE TO GRAYISH BROWN, POROSITY, INTERGRANULAR, VUGULAR, POSSIBLY HIGH PERMEABILITY, 90-100% ALTERED, EUHEDRAL, GRAIN SIZE: FINE, RANGE: VERY FINE TO MEDIUM, GOOD INDURATION, DOLOMITE CEMENT, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX, HIGH RECRYSTALLIZATION, NO FOSSIL,

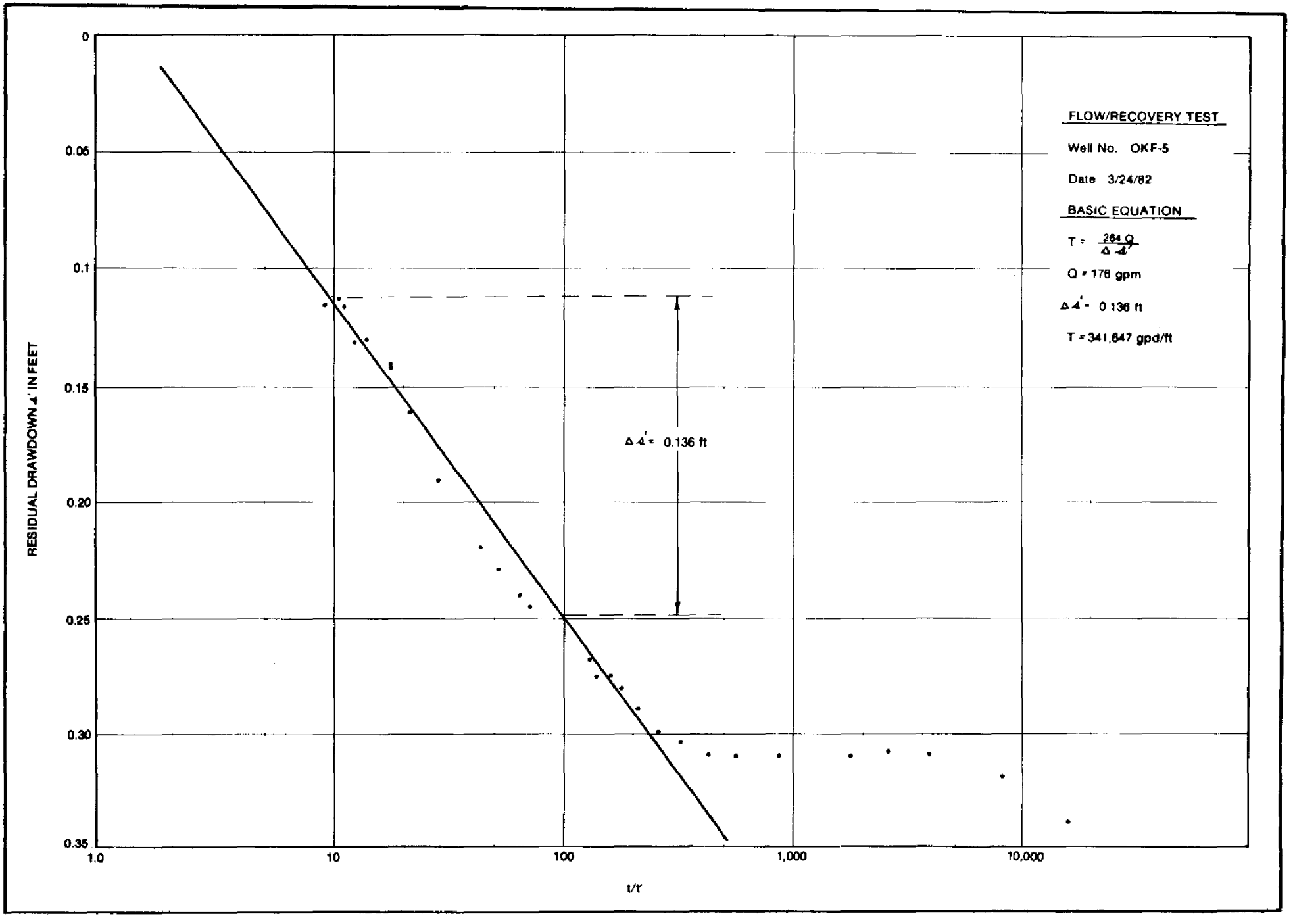
940.0- 100.0 AS ABOVE,

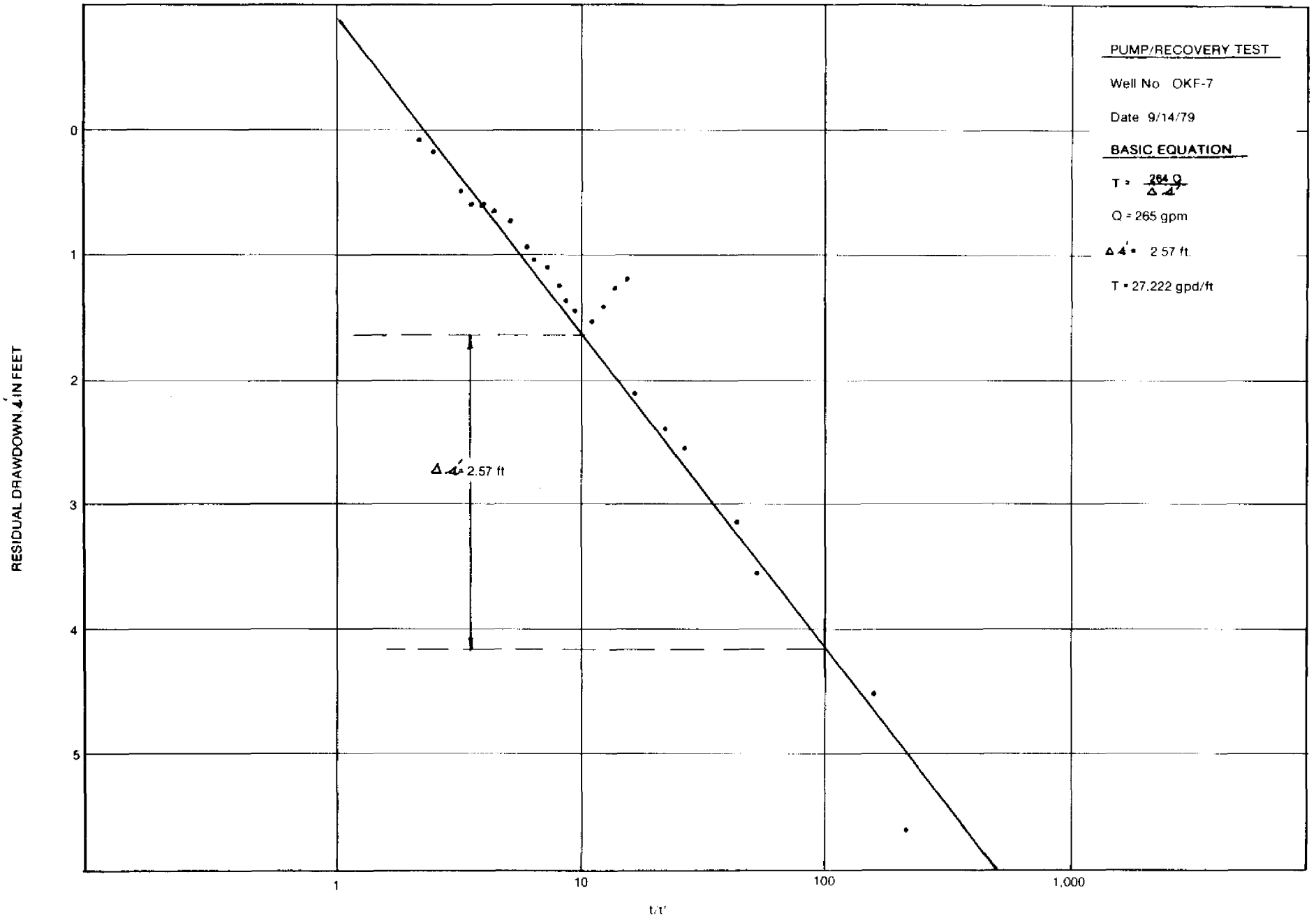
APPENDIX V

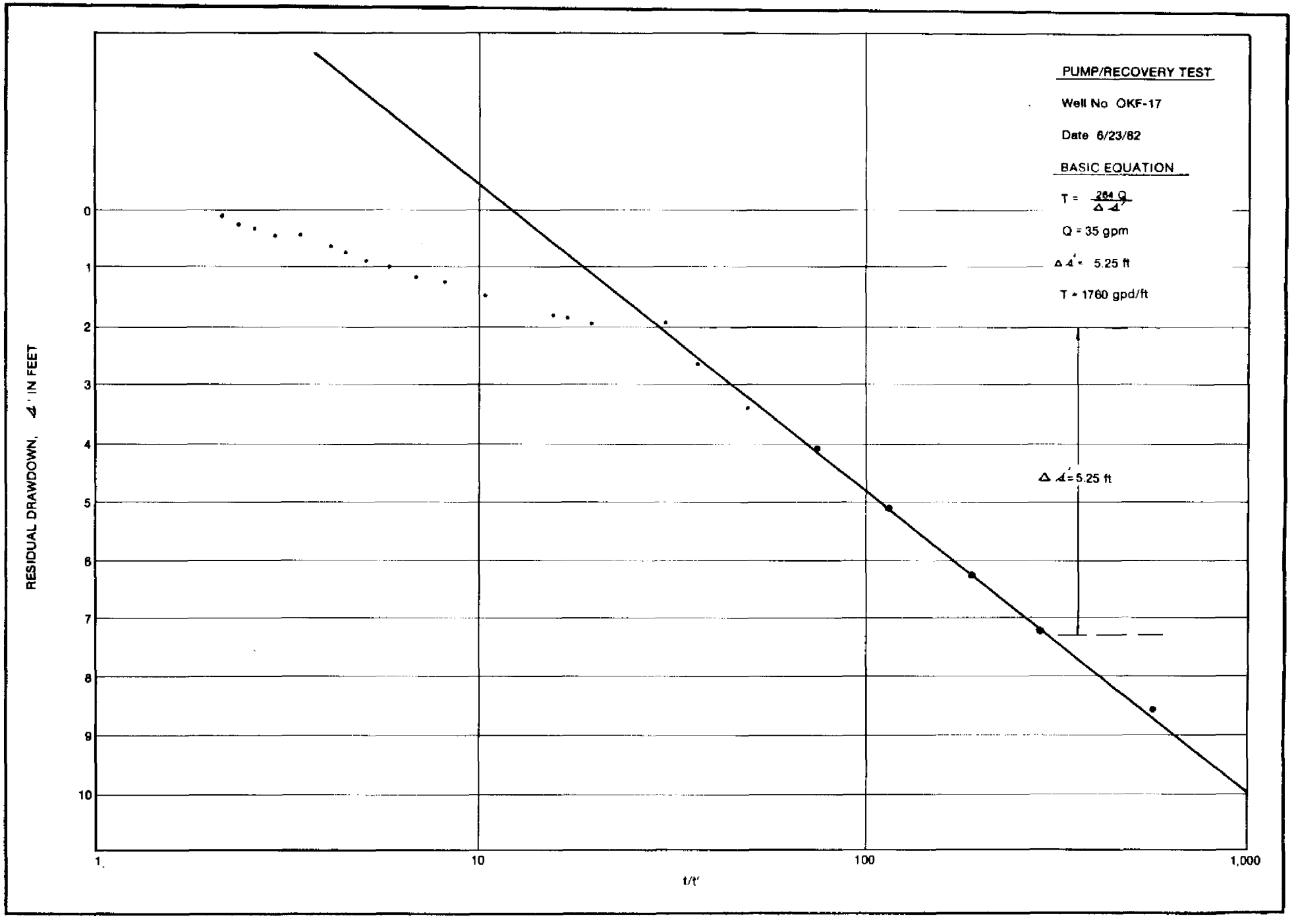
Flow/Recovery and Pump/Recovery Test Data

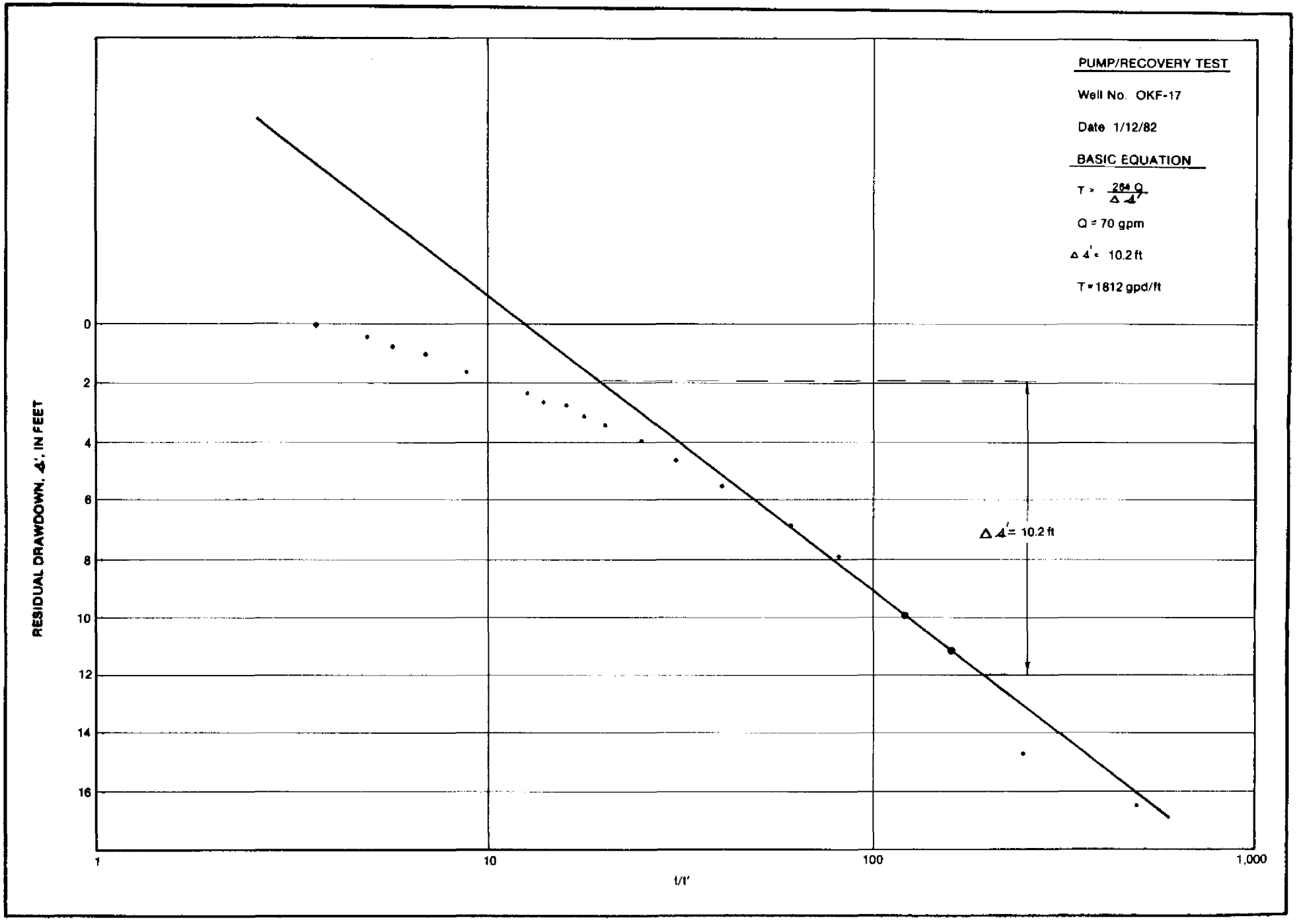

FLOW/RECOVERY TEST
Well No. HIF-1
Date 8/19/82
BASIC EQUATION
T = 264 Q / Δ s'
Q = 151 gpm
Δ s' = 1.93 ft
T = 20,607 gpd/ft
Δ s' = 1.93 ft
RESIDUAL DRAWDOWN, s' IN FEET
0
1
2
3
4
5
1
10
100
1,000
10,000
t/t'

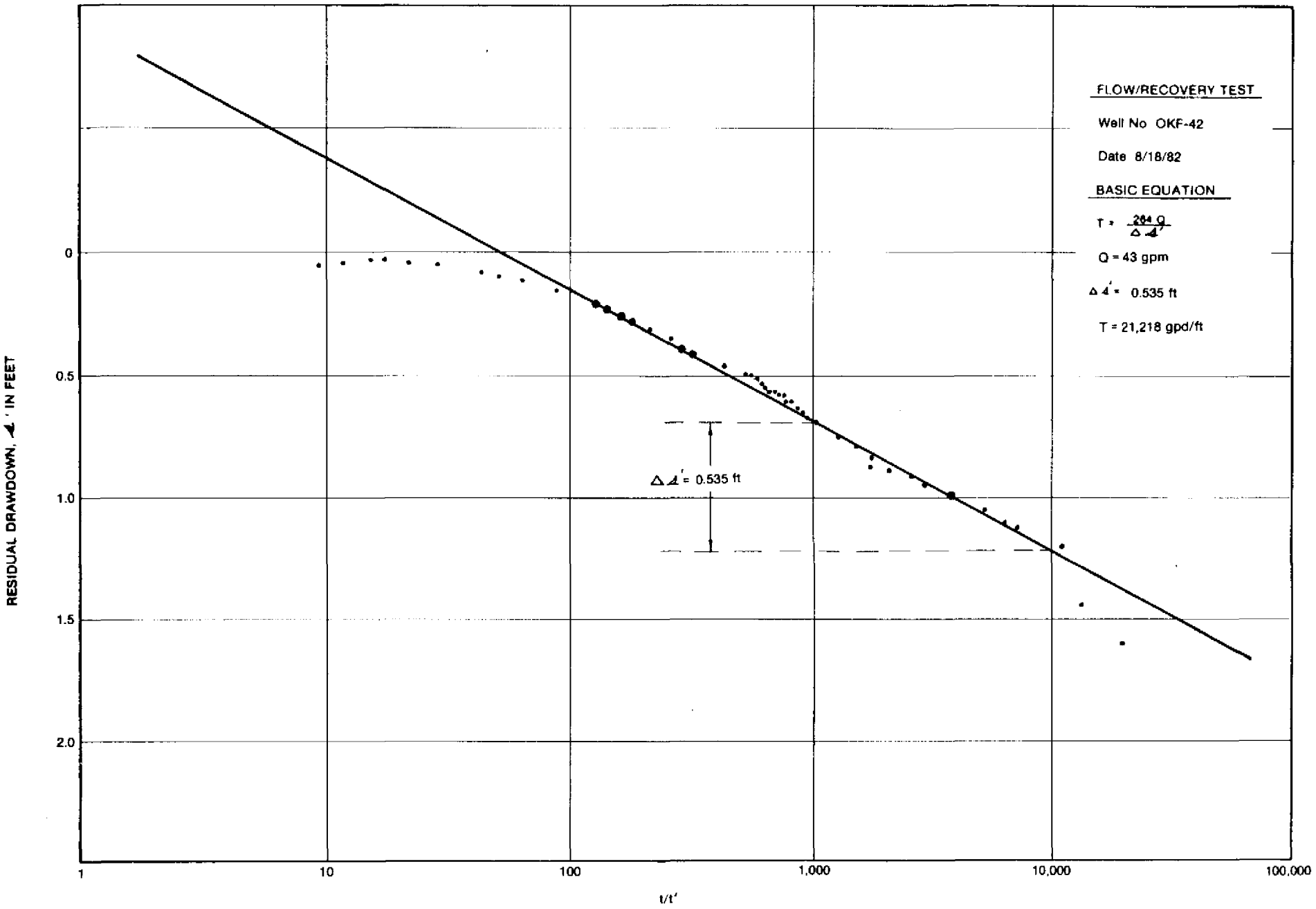

FLOW/RECOVERY TEST
Well No. HIF-6
Date 3/10/82
BASIC EQUATION
T = 264 Q / Δs'
Q = 47 gpm
Δs' = 4.5 ft
T = 2758 gpd/ft
Δs' = 4.5 ft
RESIDUAL DRAWDOWN, s', IN FEET
0
1
2
3
4
5
6
7
8
9
10
11
1
10
100
1,000
10,000
t/t

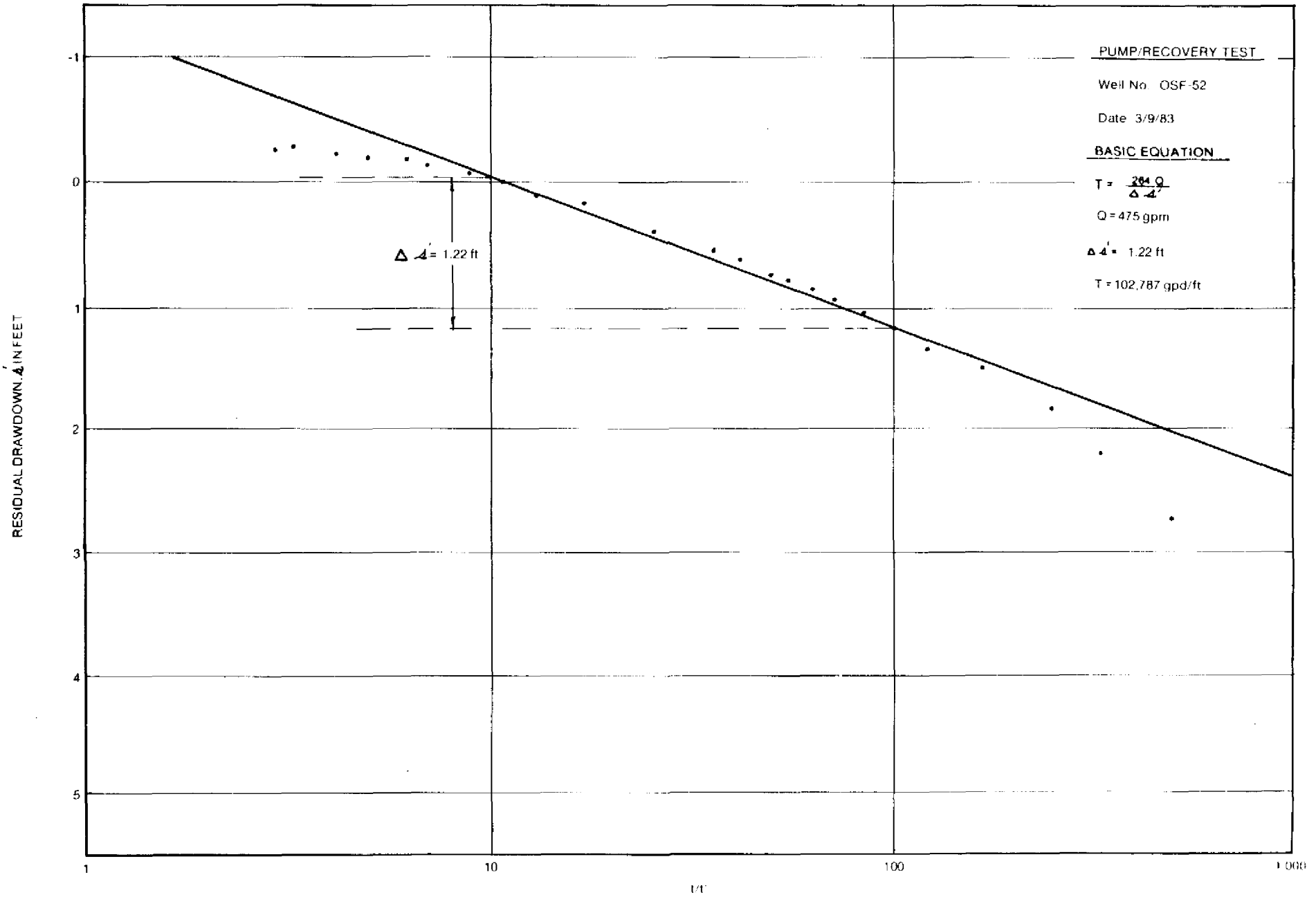

FLOW/RECOVERY TEST
Well No. OKF-5
Date 3/24/82
BASIC EQUATION
T = 264 Q / Δ s'
Q = 176 gpm
Δ s' = 0.136 ft
T = 341,647 gpd/ft
Δ s' = 0.136 ft
RESIDUAL DRAWDOWN s' IN FEET
0
0.05
0.1
0.15
0.20
0.25
0.30
0.35
1.0
10
100
1,000
10,000
t/t'

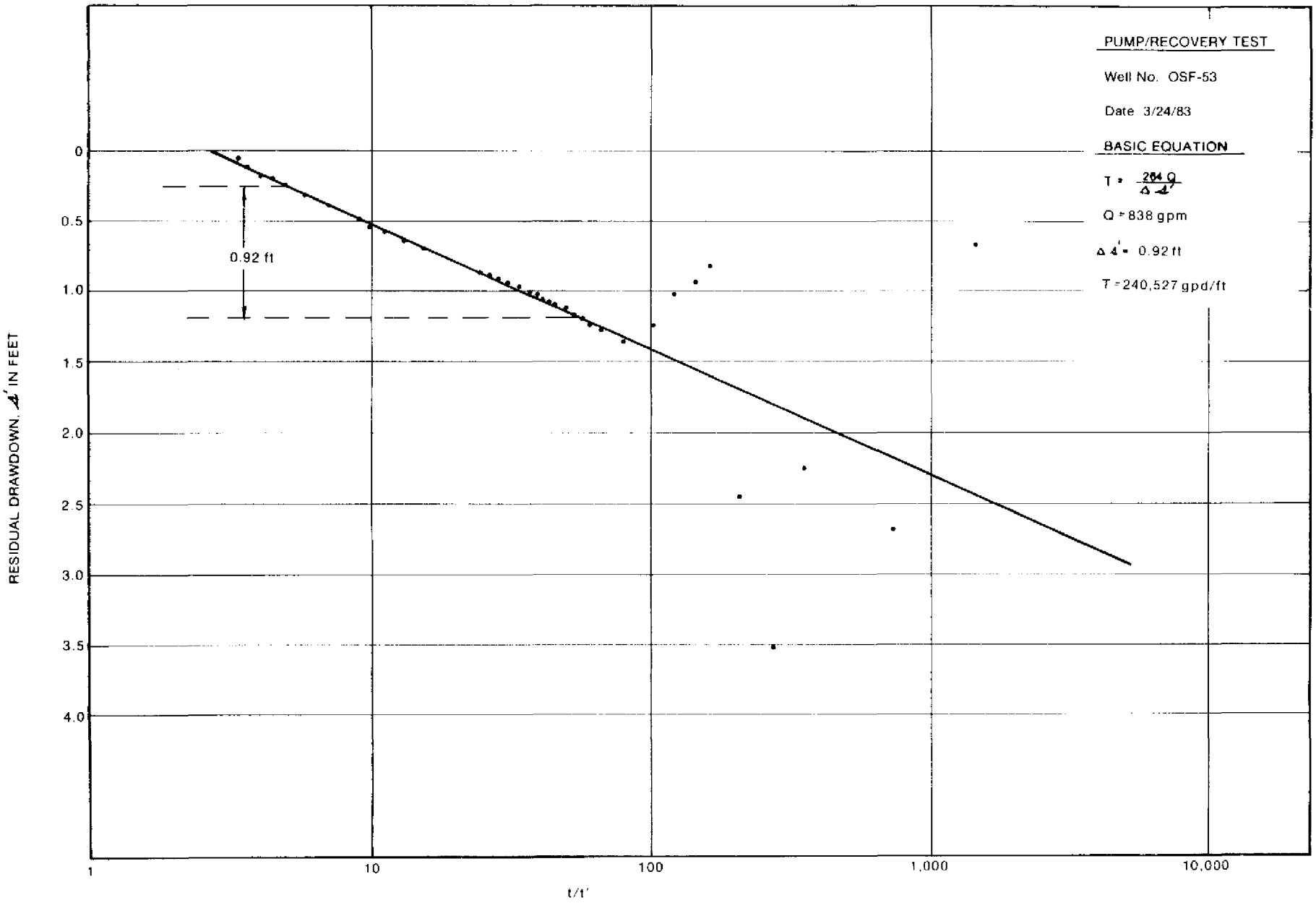

PUMP/RECOVERY TEST
Well No OKF-7
Date 9/14/79
BASIC EQUATION
T = 264 Q / Δs'
Q = 265 gpm
Δs' = 2.57 ft.
T = 27,222 gpd/ft
Δs' = 2.57 ft
RESIDUAL DRAWDOWN, s' IN FEET
0
1
2
3
4
5
1
10
100
1,000
t/t'

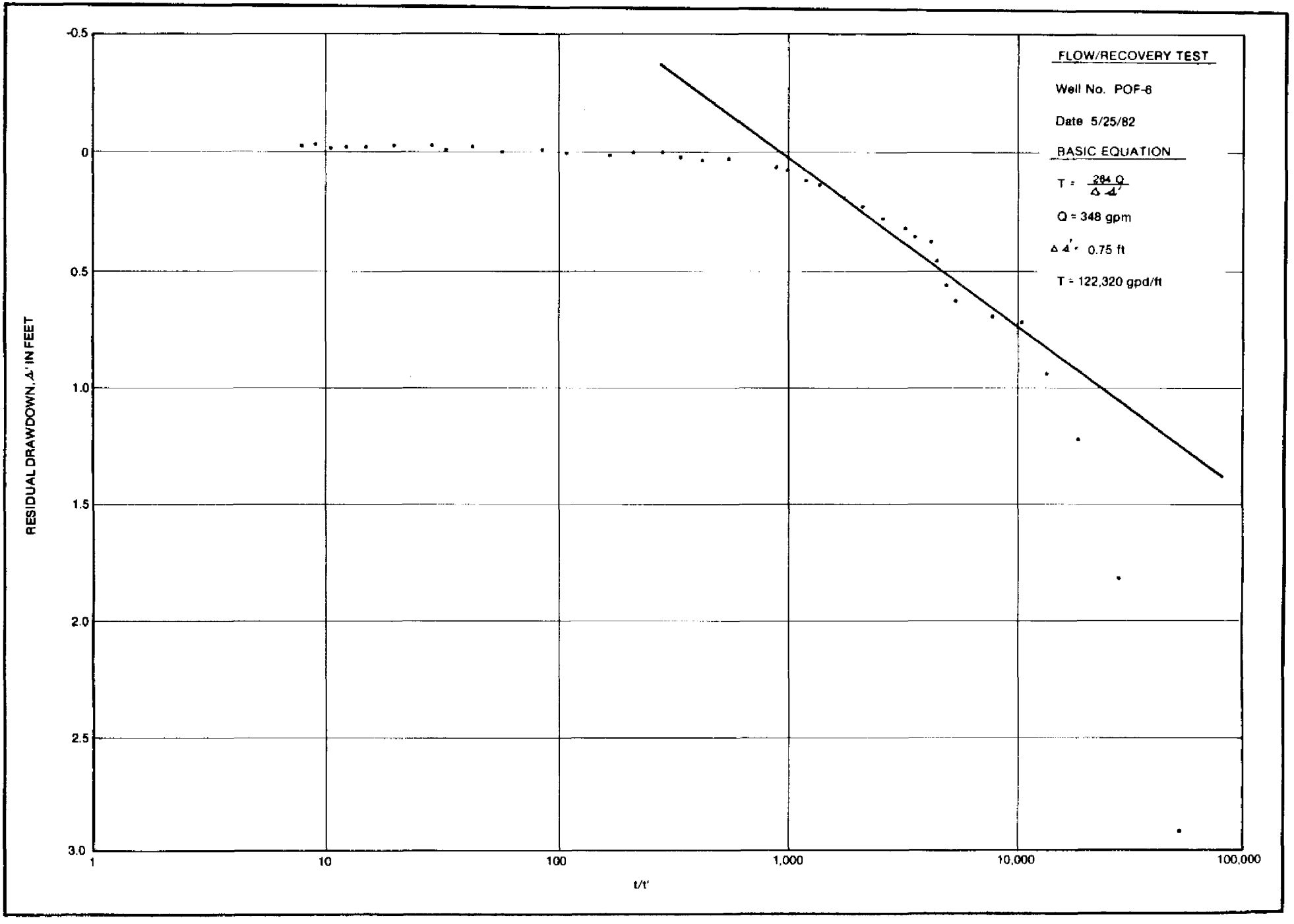

PUMP/RECOVERY TEST
Well No OKF-17
Date 6/23/82
BASIC EQUATION
T = 264 Q / Δ s'
Q = 35 gpm
Δ s' = 5.25 ft
T = 1760 gpd/ft
Δ s' = 5.25 ft
RESIDUAL DRAWDOWN, s' IN FEET
0
1
2
3
4
5
6
7
8
9
10
1.
10
100
1,000
t/t'

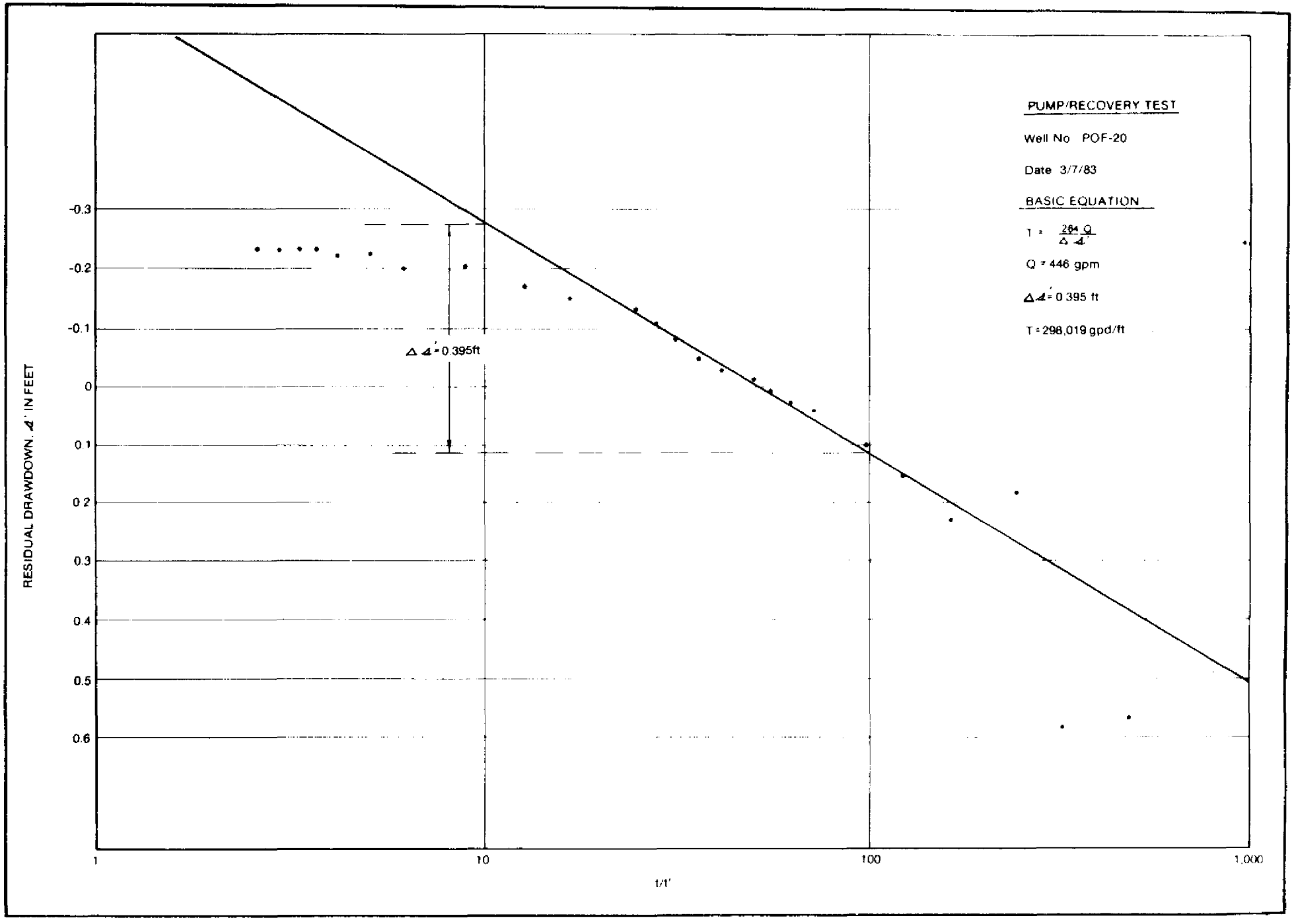

PUMP/RECOVERY TEST
Well No. OKF-17
Date 1/12/82
BASIC EQUATION
T = 264 Q / Δ s'
Q = 70 gpm
Δ s' = 10.2 ft
T = 1812 gpd/ft
Δ s' = 10.2 ft
RESIDUAL DRAWDOWN, s', IN FEET
0
2
4
6
8
10
12
14
16
1
10
100
1,000
t/t'


FLOW/RECOVERY TEST
Well No OKF-42
Date 8/18/82
BASIC EQUATION
$T = \frac{264\,Q}{\Delta s'}$
Q = 43 gpm
$\Delta s'$ = 0.535 ft
T = 21,218 gpd/ft
$\Delta s'$ = 0.535 ft
RESIDUAL DRAWDOWN, s', IN FEET
0
0.5
1.0
1.5
2.0
1
10
100
1,000
10,000
100,000
t/t'


PUMP/RECOVERY TEST
Well No. OSF-52
Date 3/9/83
BASIC EQUATION
T = 264 Q / Δ s'
Q = 475 gpm
Δ s' = 1.22 ft
T = 102,787 gpd/ft
Δ s' = 1.22 ft
RESIDUAL DRAWDOWN, s' IN FEET
-1
0
1
2
3
4
5
1
10
100
1,000
t/t'


PUMP/RECOVERY TEST
Well No. OSF-53
Date 3/24/83
BASIC EQUATION
T = 264 Q / Δ s'
Q = 838 gpm
Δ s' = 0.92 ft
T = 240,527 gpd/ft
0.92 ft
RESIDUAL DRAWDOWN, s' IN FEET
0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
1
10
100
1,000
10,000
t/t'

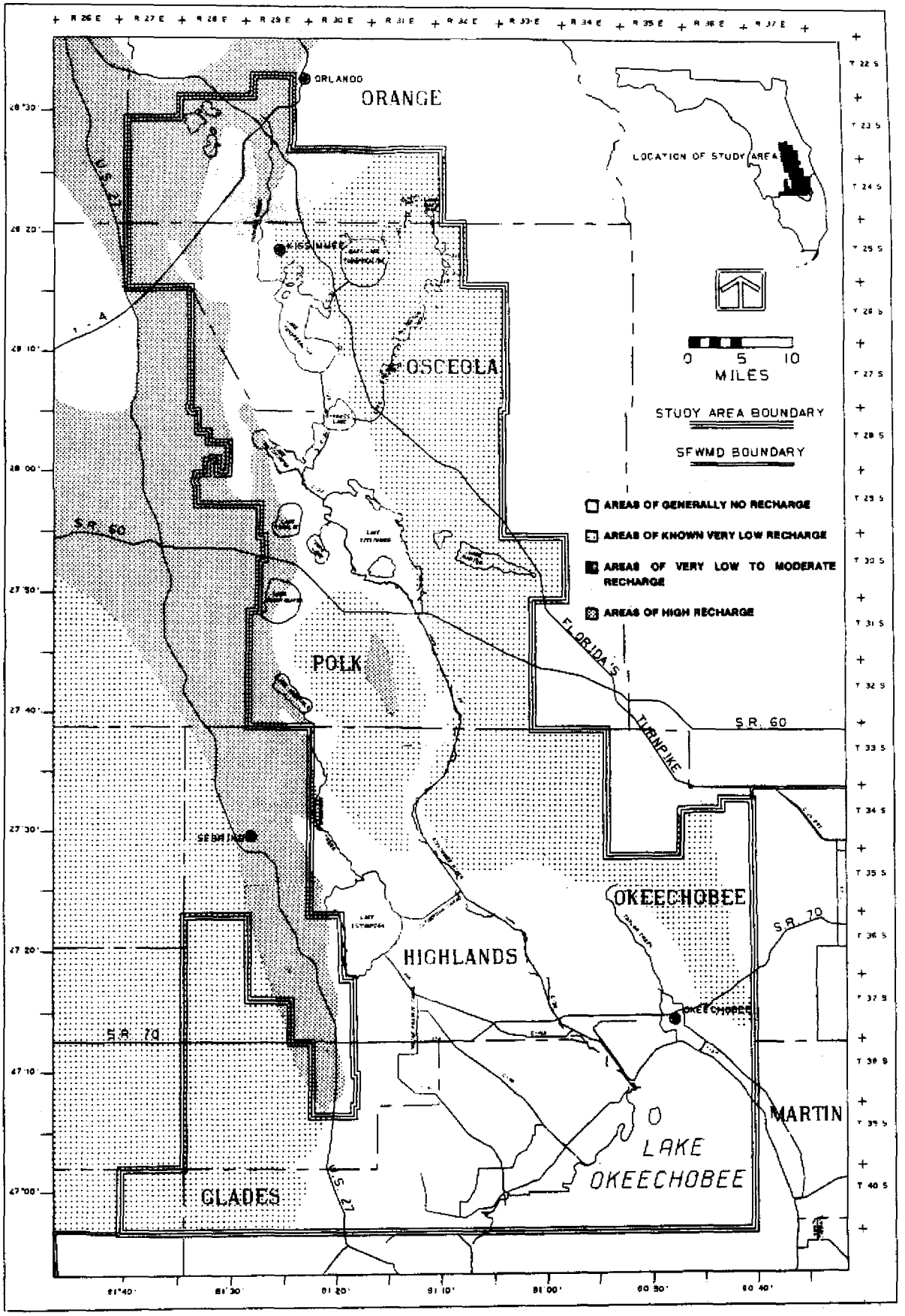

FLOW/RECOVERY TEST
Well No. POF-6
Date 5/25/82
BASIC EQUATION
T = 264 Q / Δ s'
Q = 348 gpm
Δ s' = 0.75 ft
T = 122,320 gpd/ft
RESIDUAL DRAWDOWN, s' IN FEET
-0.5
0
0.5
1.0
1.5
2.0
2.5
3.0
1
10
100
1,000
10,000
100,000
t/t'


PUMP/RECOVERY TEST
Well No POF-20
Date 3/7/83
BASIC EQUATION
T = 264 Q / Δ s'
Q = 446 gpm
Δ s' = 0.395 ft
T = 298,019 gpd/ft
Δ s' = 0.395ft
RESIDUAL DRAWDOWN, s' IN FEET
-0.3
-0.2
-0.1
0
0.1
0.2
0.3
0.4
0.5
0.6
1
10
100
1,000
t/t'

APPENDIX VI

Areas of Natural Recharge to the Floridan Aquifer System

(from Stewart, 1980)



APPENDIX VI AREAS OF NATURAL RECHARGE TO THE FLORIDAN AQUIFER SYSTEM (FROM STEWART, 1980)