



Table .

Ref. No.	File Name	Document Title	Relevant Section	Relevance
13	SUMMARY SALINITY EVALUATIONS TURKEY POINT PLANT FLORIDA POWER AND LIGHT COMPANY.pdf	SUMMARY SALINITY EVALUATIONS TURKEY POINT PLANT FLORIDA POWER AND LIGHT COMPANY	Figure 6	Fresh Water - Salt Water Interface Under Original Ground Water Conditions
13	SUMMARY SALINITY EVALUATIONS TURKEY POINT PLANT FLORIDA POWER AND LIGHT COMPANY.pdf	SUMMARY SALINITY EVALUATIONS TURKEY POINT PLANT FLORIDA POWER AND LIGHT COMPANY	Figure 7	Fresh Water - Salt Water Interface Under Projected Ground Water Conditions - shows brackish water in L-31E Canal
13	SUMMARY SALINITY EVALUATIONS TURKEY POINT PLANT FLORIDA POWER AND LIGHT COMPANY.pdf	SUMMARY SALINITY EVALUATIONS TURKEY POINT PLANT FLORIDA POWER AND LIGHT COMPANY	Text of report	Discussion of causes of salt water intrusion in this area.
13	SUMMARY SALINITY EVALUATIONS TURKEY POINT PLANT FLORIDA POWER AND LIGHT COMPANY.pdf	SUMMARY SALINITY EVALUATIONS TURKEY POINT PLANT FLORIDA POWER AND LIGHT COMPANY	Last page entitled "Figures"	Mentions that this summary is based on a more detailed report dated 12/15/77
14	therm perf cool sys 1988.pdf	Thermal Performance of the Turkey Point Cooling Canal System In 1988	Figure 4	Infrared Photograph of CCS
14	therm perf cool sys 1988.pdf	Thermal Performance of the Turkey Point Cooling Canal System In 1988	Figure 5	Flow rates in individual Canals
15	1-75 quart. rep.pdf	January 1975 Quarterly Report, GWMP	Ground Water Salinity pp 12-14 of 122	Description of groundwater salinities 1974
15	1-75 quart. rep.pdf	January 1975 Quarterly Report, GWMP	Plates 5, 6, and 7 pp 24 - 26	Isobath lines - 1, 10, 20 PPT - 4772 to 1074
15	1-75 quart. rep.pdf	January 1975 Quarterly Report, GWMP	Plates 8 and 9 pp 27 - 28	5 PPT @ 20 ft. and 15 PPT @ 50 ft. Isobaths near Line D - 7772 to 6773
16	1-79 semi annual report exv mon. proc.pdf	January, 1979 Semi-Annual Report GWMP	pages 173-177	Time-History Plots Wells F-3, F-4, F-6, F-7, and F-8
17	NPDES DISCHARGE 91-94.pdf	DMRs for 1/91 through 6/94	monthly DMR salinity tables	max, average, and min monthly salinities in CCS 1/91 through 6/94
18	EPA Turkey Point Wells.pdf	Stored LDC - Detailed Data Report	all	Specific conductance for E-Wells for 7/31/72 at 20', 40' and 60' depths
19	E-Series Wells-Dec-11-1972.pdf	Groundwater Monitoring Data-Report Sequence #6	all	Specific conductance for E-Wells for 12/5/72 at 20', 40' and 60' depths
20	E-Series Wells-Jan-8-1973.pdf	Groundwater Monitoring Data-Report Sequence #7	all	Specific conductance for E-Wells for 12/5/72 and 12/6/72 at 20', 40' and 60' depths
21	E-Series WO-Oct-18-1972.pdf	Groundwater Monitoring Data-Water Sample Analyses	all	TDS and Chlorides for E-Wells for 10/72 at 20' and 40' (B-1 only) depth
22	E-Series WO-Nov-14-1972.pdf	Groundwater Monitoring Data-Water Sample Analyses	all	TDS and Chlorides for E-Wells for 11/72 at 20' depth
23	E-Series WO-Dec-12-1972.pdf	Groundwater Monitoring Data-Water Sample Analyses	all	TDS and Chlorides for E-Wells for 12/72 at 20' depth

**Golder  
Associates**

**SUBJECT** Inputting Dames & Moore Ranges into GIS

Job No. 10390308  
Ref. Calc 004  
FPL TP Salt Orientation

Made By: S. Hoschek  
Checked: H. Frediani  
Reviewed

Date 5/3/2011  
Sheet 1 of 1

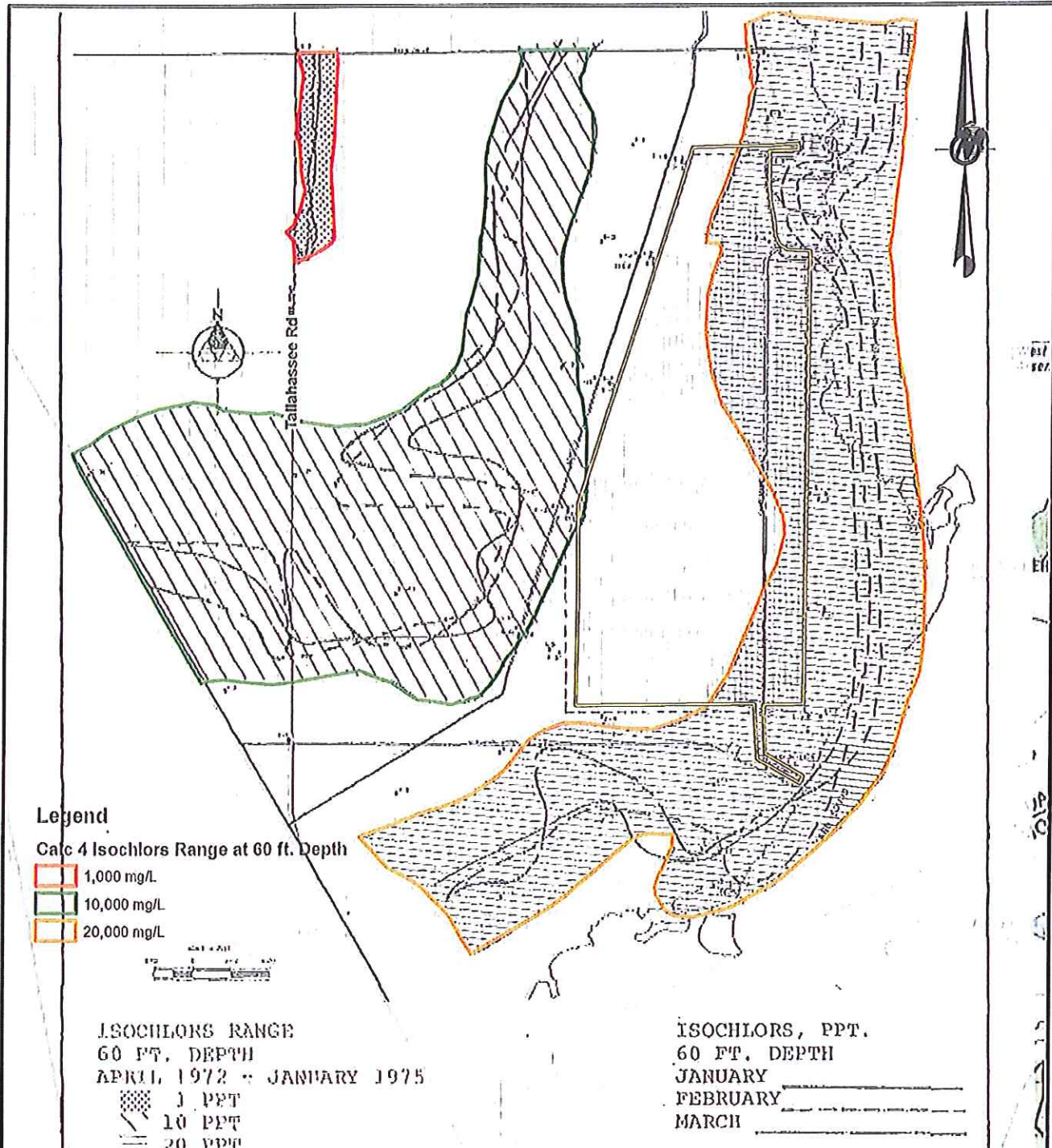
References 2 and 15 include maps prepared by Dames & Moore of the location of the 1,000; 10,000; and 20,000 mg/L isochlors in the Biscayne Aquifer, at the 20, 40, and 60-foot depths between the period April, 1972, and January, 1975. In order to compare the Dames & Moore results with our present-day results, it was decided to create a GIS shape file which would locate the areas Dames & Moore designated as containing the isochlor ranges at the 60-foot depth. It should be noted that the Dames & Moore data covers a period which extends after the Cooling Canal System (CCS) became operational. Plate 7 of the two references afore-mentioned shows the isochlor ranges at the 60-foot depth as areas, and indicates that these ranges cover the period from April, 1972, through January, 1975.

In order to do this, a scanned image of the Dames & Moore Plate 7 was added to an .mxd file in ArcMap 9.3. The Dames & Moore Plate 7 image was georeferenced to a base map using the locations of road intersections. The base map consisted of United States Geological Survey (USGS) 1:24,000 scale quad maps accessed through ESRI ArcGIS Online services. Once the image was georeferenced to an acceptable level, the isochlor ranges were digitized into a polygon shape file called Isochlors\_range\_all.shp.


Figure A, Calc 4 - Exhibit 1 shows a transparent version of the Dames & Moore Plate 7 image, the USGS quad base map, and the shape file with the digitized 1, 10, and 20 parts per thousand (PPT) isochlor ranges corresponding to the 1,000, 10,000, and 20,000 mg/L lines. The digitized 60-foot depth isochlor range for 1,000 mg/L was used in Figure 15.

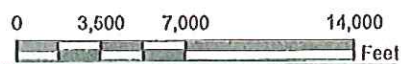
This technique was also used for Dames & Moore Plate 5 from the above references to digitize the isochlor ranges at the 20-foot depth. The digitized 20-foot depth isochlor ranges for 1,000, 10,000 and 20,000 mg/L were used in Figure 14.

Map Document: C:\GIS\FPL\Turkey Point\PROJECTS\Calc4.mxd / Modified 5/2/2011 2:47:51 PM / Plotted 5/2/2011 2:47:51 PM by Sheehy



**REFERENCES**

REV.	DATE	DES.	REVISION DESCRIPTION	GIS	CHK	RVW		
PROJECT			FPL TURKEY POINT SALT WATER ORIENTATION UNINCORPORATED MIAMI-DADE COUNTY, FLORIDA					
TITLE								
CALC 4 - EXHIBIT 1								
 <b>Golder Associates</b> Atlanta, Georgia			PROJECT No.		10300259			
			DESIGN		...	FILE No.	...	
			GIS		SSII	04/2011	SCALE: AS SHOWN	REV. 0
			CHECK		HF	04/2011	<b>FIGURE A</b>	
			REVIEW		HF	01/2011		



**Golder  
Associates**

**SUBJECT** Average Values in Wells from April 1, 1972 through January 31, 1973

Job No. 10390308

Made By: S. Major

Date 4/5/2011

Ref. Calc 005

Checked H. Frediani

Sheet 1 of 1

FPL TP Salt Orientation

Reviewed

The purpose of this calculation is to tabulate the conductivity values of the E-Wells and G-Wells, and the chlorinity of F-Wells, from April 1, 1972 through January 31, 1973, and to obtain the average values. These values were put into a spreadsheet entitled Values By Date.xls.

The References identified in Calc 1 were used, as follows:

For the E-Wells, Reference 3—Dames and Moore 3-final.pdf—Appendix A—Plates 1 through 69.

For the G-Wells, Reference 4—Dames and Moore 5 final.pdf—Appendix—Plates 2 through 62 (with the exception of Plates 6, 13, 18, 25, 30, 37, 42, 49, and 54, which are Surface Water monitoring locations).

For the F-Wells, Reference 16—1-79 semi annual report gw mon. prog.pdf—pp. 173-177.

Note that some of the G-Wells are designated as A and B. These are a set of piezometers, one 50 feet and one 20 feet deep. At each location, the two piezometers are approximately 10 feet apart in a north-south direction, with the 20-foot piezometer being the northernmost in each case. The 50-ft. piezometer is designated as "A" and the 20-ft as "B". (Ref. 4, p. 2.0-1)

Units for conductivity for the E- and G-Wells are micromhos/cm X1000, and units for chlorinity for the F-Wells are in ppt.

Note that on the plot for Well F-3, at 60' depth, the scale jumps from 21 to 26. This appears to be an error, and the 26 should actually read "22". Values above 21 reflect the corrected scale.

Next, compare this spreadsheet with information obtained in an email from FPL.

The email from Stacy Foster, dated April 5, 2011, (E-Series Well Data.msg) had several attachments containing additional conductivity data.

These are:

EPA Turkey Point Wells.pdf

E-Series\_Wells-Dec-11-1972.pdf

E-Series\_Wells-Jan-8-1973.pdf

These documents were added to Calculation 1, file "references.xls" as Reference Numbers 18, 19, and 20 respectively.

The values from these documents were copied into the spreadsheet and compared to the data readings from the plots for the nearest date, i.e. the values from E-Series\_Wells-Dec-11-1972.pdf were compared to the points from 12/1/72, E-Series\_Wells-Jan-8-1973.pdf were compared to points from 1/1/73, and EPA Turkey Point Wells.pdf, which were taken on 7/31/72, were compared to 8/1/72.

Where discrepancies occurred, the values from References 18, 19, and 20, took precedence over the plots, and the plot readings were replaced. The resultant spreadsheet is called "Corrected Values.xls".

The values were averaged over time for each well, and tabulated in Corrected Values.xls.







	4/1/1972	5/1/1972	6/1/1972	7/1/1972	8/1/1972	9/1/1972	10/1/1972	11/1/1972	12/1/1972	1/1/1973	2/1/1973	Reference #	Value	Units
E-1														
E-2														
E-3														
E-4														
E-5														
E-6														
E-7														
E-8														
E-9														
E-10														
E-11														
E-12														
E-13														
E-14														
E-15														
E-16														
E-17														
E-18														
E-19														
E-20														
E-21														
E-22														
E-23														
G-2A	39	35	38	48	43	33	51	42	46	44	44	44.5	4	Conductivity micromhos/cm (x1000)
G-3A	39	39	39	49.5	44	44	43	42	42	43.5	43	44.5	4	Conductivity micromhos/cm (x1000)
G-5A	39	41	39	47	43	44.5	45.5	37	44	43	43	42	4	Conductivity micromhos/cm (x1000)
G-6														
G-7														
G-9A	38	42	38	44	47.5	44.5	54	41	47	44	44	42.5	4	Conductivity micromhos/cm (x1000)
G-10A	39	42	37	46	47	45	53	43	49	45.5	46	47.5	4	Conductivity micromhos/cm (x1000)
G-12A	38	40.8	36	44	46.5	43	43	40	45	43.5	44	44	4	Conductivity micromhos/cm (x1000)
G-13														
G-14														
G-16A	35	41			46	44	51	39	44	42	44	42	4	Conductivity micromhos/cm (x1000)
G-17A	31	36			45	44	49	39	42	41	42	40	4	Conductivity micromhos/cm (x1000)
G-19A	34	34			36	42	43	33	39	33	38	38.5	4	Conductivity micromhos/cm (x1000)
G-20														
G-21														
G-23A	27	26			30	32	35	30	34	30	32	35	4	Conductivity micromhos/cm (x1000)
G-24A	27	28			32.5	36	42	30	33	31	33	33	4	Conductivity micromhos/cm (x1000)
G-26A	26	25.5			29.5	32	38	27	30	28	30	29	4	Conductivity micromhos/cm (x1000)
G-27														
G-28														
G-30A	32	25			44.5	47	47	39	44	41	42	40	4	Conductivity micromhos/cm (x1000)
G-31A	32	34			40.5	43	48	33	42	39	40	36	4	Conductivity micromhos/cm (x1000)
G-33A	31	31			37.5	43	44	33	37	34	35	32.5	4	Conductivity micromhos/cm (x1000)
G-34														
G-34X														
G-35														
F-3														
F-4														
F-6														
F-7														
F-8														





	4/1/1972	5/1/1972	6/1/1972	7/1/1972	8/1/1972	9/1/1972	10/1/1972	11/1/1972	12/1/1972	1/1/1973	2/1/1973	Average	Reference #	Value	Units
E-1	35	35			42	39	45	39	40	41	40	39.1	3	Conductivity	micromhos/cm (x1000)
E-2	33	39			44	43	48	39	43	42	43.5	42.2	3	Conductivity	micromhos/cm (x1000)
E-3	28	29			32	31	37	31	30	29	31	30.9	3	Conductivity	micromhos/cm (x1000)
E-4	34	30			41	41.5	42.8	42	39	37	37.5	37.8	3	Conductivity	micromhos/cm (x1000)
E-5		37			46.5	45	43	43	46	41	44	43.2	3	Conductivity	micromhos/cm (x1000)
E-6	41	38			48	44.5	44	45	34	42	43	41.9	3	Conductivity	micromhos/cm (x1000)
E-7			36.5		53	49.5	51	47	51	46	48	47.9	3	Conductivity	micromhos/cm (x1000)
E-8			34		52.5	49	46	46	45	44	48	44.1	3	Conductivity	micromhos/cm (x1000)
E-9		40			53	49	50	47	51	45	47	48.6	3	Conductivity	micromhos/cm (x1000)
E-10			32		51	49.5	52.5	50	51	50	52.5	50.5	3	Conductivity	micromhos/cm (x1000)
E-11			34		51.5	49	50	48	51	50	51	49.5	3	Conductivity	micromhos/cm (x1000)
E-12			36.5		53	50.5	55	50	51	51	53	50.2	3	Conductivity	micromhos/cm (x1000)
E-13			34		54	51.5	53	50	47	53	52	49.6	3	Conductivity	micromhos/cm (x1000)
E-14			22.5		50	48.5	53	49	49	47	50	46.9	3	Conductivity	micromhos/cm (x1000)
E-15			29.5		48	45.5	49	48	47	46	45	45.0	3	Conductivity	micromhos/cm (x1000)
E-16			31		44	46	37	39	47	42	43	41.2	3	Conductivity	micromhos/cm (x1000)
E-17			29		48	46	51	49	49	46	47	46.5	3	Conductivity	micromhos/cm (x1000)
E-18			39		48.5	46	50	52	45	42	43	43.4	3	Conductivity	micromhos/cm (x1000)
E-19					37.5	35.5	38	40	31	28	27	28	3	Conductivity	micromhos/cm (x1000)
E-20					41	43	39	36	36	32	30	35.1	3	Conductivity	micromhos/cm (x1000)
E-21			39		50.5	48	50	42	47	45	44	44.5	3	Conductivity	micromhos/cm (x1000)
E-22			42		55	54.5	56	58	49	50	47	50.0	3	Conductivity	micromhos/cm (x1000)
E-23			40	39	55	53.5	56	55	51	50	49	49.9	3	Conductivity	micromhos/cm (x1000)
G-28	24	24	25	27	25	23	30	25	26	25	25	25.3	4	Conductivity	micromhos/cm (x1000)
G-38	22	23	24	25	28	31	27	38	25	27	24	27.0	4	Conductivity	micromhos/cm (x1000)
G-58	6	6	24	25	21.5	17	19	14	14	9.5	11.5	14.8	4	Conductivity	micromhos/cm (x1000)
G-6	3	6	10.5		7.5	14	9	6	6.5	7.8	7.8	7.8	4	Conductivity	micromhos/cm (x1000)
G-7	0.5	0.5			0.5	1	1	0.8	1	1.2	1.2	0.9	4	Conductivity	micromhos/cm (x1000)
G-98	23	24	23	30	29.5	28	34	26	31	28	30	27.9	4	Conductivity	micromhos/cm (x1000)
G-108	22	20	12	26	24	20	29	18	21	13	10	18.7	4	Conductivity	micromhos/cm (x1000)
G-128	6		9	5.5	7.5	5.5	8.5	6.5	8.5	7.5	9.5	7.5	4	Conductivity	micromhos/cm (x1000)
G-13	5.5	7			7	5.5	6.5	6	4.5	5.5	6	5.8	4	Conductivity	micromhos/cm (x1000)
G-14					0.9	1.5	0.9	1	0.9	1	1	1.0	4	Conductivity	micromhos/cm (x1000)
G-168	16	15			13	21.5	20	16	17	17	17.5	17.5	4	Conductivity	micromhos/cm (x1000)
G-178	12	10				14		17	16	17	20	15	4	Conductivity	micromhos/cm (x1000)
G-298	4	2			4.5	10	7	6	6	6.8	7.2	7.5	4	Conductivity	micromhos/cm (x1000)
G-20	12	4			6			4	4.8	5	5.7	5.8	4	Conductivity	micromhos/cm (x1000)
G-21	0.8	0.8			1	1.5	2.3	1	0.8	1	1.2	1.2	4	Conductivity	micromhos/cm (x1000)
G-238	21	15			19	17	25	14	18	16	23	24	4	Conductivity	micromhos/cm (x1000)
G-248	22	22			19	22	21	13	17	16	24	22	4	Conductivity	micromhos/cm (x1000)
G-268	18	15			5	6.5	5.5	3.5	4	4	4.5	7.0	4	Conductivity	micromhos/cm (x1000)
G-27	5	2			4	4	3.8	3	3	2.5	3.5	4	4	Conductivity	micromhos/cm (x1000)
G-28	5	2			3	3.5	4	2	1.8	2.5	2.5	3.0	4	Conductivity	micromhos/cm (x1000)
G-308	26	25			31.5	34.5	35	29	34	30	31	30.3	4	Conductivity	micromhos/cm (x1000)
G-318	26	26			31	36	37	29	34	30	32	31.3	4	Conductivity	micromhos/cm (x1000)
G-338	22	20			15	17	23	14	15	17	20	22.5	4	Conductivity	micromhos/cm (x1000)
G-34	6	5			7	11	8	5	5.5	4	7	6	4	Conductivity	micromhos/cm (x1000)
G-34X	3.5	3.4			5	5.2	5.6	4.5	4.2	4.8	5.5	5	4	Conductivity	micromhos/cm (x1000)
G-35	0.7	0.7			1	1	1	0.8	0.8	1.1	1.6	2	4	Conductivity	micromhos/cm (x1000)
F-3					23		13	19.8	20.4	20.6	18.3	19.8	16	Chlorinity, ppt	
F-4					23.6					21.8	20.2	21.9	16	Chlorinity, ppt	
F-6										13.1	13.1	13.6	16	Chlorinity, ppt	
F-7										1.4	1.6	1.4	16	Chlorinity, ppt	
F-8									0.7	0.75	1	0.8	16	Chlorinity, ppt	

From EPA\_Turkey\_Point\_wells1.pdf  
From E-Series\_Wells-Dec-11-72.pdf

	4/1/1972	5/1/1972	5/15/1972	6/1/1972	7/1/1972	8/1/1972	9/1/1972	10/1/1972	11/1/1972	12/1/1972	1/1/1973	2/1/1973	Average	Reference #	Value	Units	
E-1	42	45			50	48.5	51	42	49	46	47	47.5	46.6	3	Conductivity	micromhos/cm (x1000)	
E-2	42	44			51	49	52.5	43	46	47	47	47.5	46.9	3	Conductivity	micromhos/cm (x1000)	
E-3	40	41.5			51.5	51	54	50	50	49	48	47	48.2	3	Conductivity	micromhos/cm (x1000)	
E-4	46	40			55	53.5	51	52	54	49	50	50	50.1	3	Conductivity	micromhos/cm (x1000)	
E-5					50	48	49	49	49	44	47	48	47.3	3	Conductivity	micromhos/cm (x1000)	
E-6	24	42			52	51	48	50	52	49	49	50	48.7	3	Conductivity	micromhos/cm (x1000)	
E-7				39	54	52	47	54	53	51	50	49	48.9	3	Conductivity	micromhos/cm (x1000)	
E-8		43.5		37	58	46	51	52	51	50	51	49	48.9	3	Conductivity	micromhos/cm (x1000)	
E-9					59	55	52	55	53	52	56	51	54.1	3	Conductivity	micromhos/cm (x1000)	
E-10					55	53	51	52	54	53	54	52	51.0	3	Conductivity	micromhos/cm (x1000)	
E-11					35	55	53	53	52	54	53	54	51.5	3	Conductivity	micromhos/cm (x1000)	
E-12					51	54	51.5	54	51	53	52	54	52	50.3	3	Conductivity	micromhos/cm (x1000)
E-13					35	55	52	50	51	48	53	54	51	48.9	3	Conductivity	micromhos/cm (x1000)
E-14					31	52	50	51.5	50	50.5	51	50	52	48.7	3	Conductivity	micromhos/cm (x1000)
E-15					31.5	52.5	49	51	55	52	50	52	51.5	48.4	3	Conductivity	micromhos/cm (x1000)
E-16					33	54	51	53	44	53	51	51	49.0	3	Conductivity	micromhos/cm (x1000)	
E-17					32	55	51	54	56	54	51	52	50.9	3	Conductivity	micromhos/cm (x1000)	
E-18			43	31.5	54	53	55	58	52	50	51	52	50.0	3	Conductivity	micromhos/cm (x1000)	
E-19					49	47	45	44	48	46	45	42.5	45.8	3	Conductivity	micromhos/cm (x1000)	
E-20					32	49	50	44	44	47	46	43	44.6	3	Conductivity	micromhos/cm (x1000)	
E-21			43	39	59	57	59	54	56	55	54	54.5	53.1	3	Conductivity	micromhos/cm (x1000)	
E-22			45	41	61	60	61	65	58	55	54	56	55.6	3	Conductivity	micromhos/cm (x1000)	
E-23			45	42	61	59	61	62	59	56	56	56	55.7	3	Conductivity	micromhos/cm (x1000)	
G-2																	
G-3																	
G-5																	
G-6	26	23		25.5	31	36	30	25	28	30	30	30	28.6	4	Conductivity	micromhos/cm (x1000)	
G-7	0.5	0.5			0.5	1	1	0.5	1	1	1.5	1.2	0.9	4	Conductivity	micromhos/cm (x1000)	
G-9																	
G-10																	
G-12																	
G-13	37	35			34	33	40	38	40	40	41	39.5	37.8	4	Conductivity	micromhos/cm (x1000)	
G-14					1	1.9	0.8	1	0.9	1	1	1	1.1	4	Conductivity	micromhos/cm (x1000)	
G-16																	
G-17																	
G-19																	
G-20	28	28						30	32	30	32	31	30.1	4	Conductivity	micromhos/cm (x1000)	
G-21	0.3	0.3			0.3	1.9	2	0.7	0.7	0.9	1	1.2	1.1	4	Conductivity	micromhos/cm (x1000)	
G-23																	
G-24																	
G-26																	
G-27	24	22			27	27	32	24	28	25	27	25.5	26.2	4	Conductivity	micromhos/cm (x1000)	
G-28	17	15			17	24	28	14	15	10	13	13	16.6	4	Conductivity	micromhos/cm (x1000)	
G-30																	
G-31																	
G-33																	
G-34	26	25			30.5	34	31	28	32	30	30	28.5	29.5	4	Conductivity	micromhos/cm (x1000)	
G-34X	15	15			17	23	24	14	17	11	18	16	17.0	4	Conductivity	micromhos/cm (x1000)	
G-35	5	6			4.5	4.5	2.5	3.5	3.5	4	4.8	5.5	4.4	4	Conductivity	micromhos/cm (x1000)	
F-3					22.7		18.3	20.3	21.3	20.8	20.1	19.2	20.4	16	Chlorinity, ppt		
F-4					22.8						21.6	20.6	21.7	16	Chlorinity, ppt		
F-6									17.8	17	17	16.9	17.2	16	Chlorinity, ppt		
F-7									13.3	13.5	13.5	14.1	13.6	16	Chlorinity, ppt		
F-8									10.1	9.9	9.9	10.2	10.1	16	Chlorinity, ppt		

From EPA\_Turkey\_Point\_wells1.pdf  
From E-Series\_Wells-000-11-72.pdf

	4/1/1972	5/1/1972	5/15/1972	6/1/1972	6/15/1972	7/1/1972	8/1/1972	9/1/1972	10/1/1972	11/1/1972	12/1/1972	1/1/1973	2/1/1973	Average	Reference #	Value	Units
E-1	43	44		50	49	52	43	43	51	50	48	47.5	47.5	47.8	3	Conductivity	microhm/cm (x1000)
E-2	43	45		51	50.5	53.5	43	47	49	49	48	48.5	48.5	47.9	3	Conductivity	microhm/cm (x1000)
E-3	42	45		53	52	52	51	52	49	48	47	47	49.1	49.1	3	Conductivity	microhm/cm (x1000)
E-4	47	42		57.5	55	54	55	57	52	54	53.5	52.7	52.7	52.7	3	Conductivity	microhm/cm (x1000)
E-5		42		53.5	49	49	52	54.5	46	49	49	49	49.3	49.3	3	Conductivity	microhm/cm (x1000)
E-6	47	43.5		55	53	51	52	56	52	53	53	51.6	51.6	51.6	3	Conductivity	microhm/cm (x1000)
E-7			45	57	54	51	55	55	53	54	52	52.2	52.2	52.2	3	Conductivity	microhm/cm (x1000)
E-8				59	51	52	55	54	53.5	55	53	51.5	51.5	51.5	3	Conductivity	microhm/cm (x1000)
E-9				59.5	51	53	55	55	55	57	52	54.7	54.7	54.7	3	Conductivity	microhm/cm (x1000)
E-10				36	36	35	52	56	54	56	53	52.9	52.9	52.9	3	Conductivity	microhm/cm (x1000)
E-11				36	37	35	53.5	52	53	56	55	53.5	53.5	52.4	3	Conductivity	microhm/cm (x1000)
E-12				32	32	35	53	55	53	55	53	53	51.7	51.7	3	Conductivity	microhm/cm (x1000)
E-13				35	35	52	51	51	49	54	55	52	50.4	50.4	3	Conductivity	microhm/cm (x1000)
E-14				32	32	54	51	52	50	52	51	51	52	49.4	3	Conductivity	microhm/cm (x1000)
E-15				33	33	54	51	53	57	54	50	53	51.5	50.7	3	Conductivity	microhm/cm (x1000)
E-16				34	34	55	52	54	49	54	51	52	52	50.1	3	Conductivity	microhm/cm (x1000)
E-17				31.5	31.5	54	55	58	54	51	52	52	51.5	51.5	3	Conductivity	microhm/cm (x1000)
E-18			49	49	48	46	46	46	46	46	46	43	46.3	46.3	3	Conductivity	microhm/cm (x1000)
E-19				33.5	33.5	51	51	45	46	49	43	47	45	46.2	3	Conductivity	microhm/cm (x1000)
E-20				40	40	60	58.5	60	55	58	55	55	55.5	54.2	3	Conductivity	microhm/cm (x1000)
E-21			45	46	42	62	60.5	61	65	59	56	56	56.5	56.4	3	Conductivity	microhm/cm (x1000)
E-22			45	43.5	61	59	60	64	64	60	56	57	56	56.2	3	Conductivity	microhm/cm (x1000)
E-23																	
E-24																	
E-25																	
E-26																	
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E-99																	
E-100																	

From EPA\_Turkey\_Point\_wells1.pdf  
From E-Series\_Wells-Jan-8-1973.pdf  
From E-Series\_Wells-Dec-11-72.pdf

	4/1/1972	5/1/1972	5/15/1972	6/15/1972	7/1/1972	8/1/1972	9/1/1972	10/1/1972	11/1/1972	12/1/1972	1/1/1973	2/1/1973	Average	Reference #	Value	Units
E-1																
E-2																
E-3																
E-4																
E-5																
E-6																
E-7																
E-8																
E-9																
E-10																
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E-12																
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E-15																
E-16																
E-17																
E-18																
E-19																
E-20																
E-21																
E-22																
E-23																
G-2A	39	35	38	48	48	38	51	42	46	44	44	44.5	43.1	4	Conductivity	micromhos/cm (x1,000)
G-3A	39	39	39	49.5	44	44	48	42	42	43.5	43	44.5	43.1	4	Conductivity	micromhos/cm (x1,000)
G-3A	39	41	39	47	48	44.5	45.5	37	44	43	42	42	42.8	4	Conductivity	micromhos/cm (x1,000)
G-6																
G-7																
G-9A	38	42	38	44	47.5	44.5	54	41	47	44	44	42.5	43.9	4	Conductivity	micromhos/cm (x1,000)
G-10A	39	42	37	46	47	45	53	43	49	45.5	46	47.5	45.0	4	Conductivity	micromhos/cm (x1,000)
G-12A	38	40.8	36	44	46.5	43	48	40	45	43.5	44	44	42.7	4	Conductivity	micromhos/cm (x1,000)
G-13																
G-14																
G-16A	35	41			46	44	51	39	44	42	44	42	42.8	4	Conductivity	micromhos/cm (x1,000)
G-17A	31	36			45	44	48	39	42	41	42	40	40.9	4	Conductivity	micromhos/cm (x1,000)
G-19A	34	34			36	42	45	33	39	38	38	38.5	37.6	4	Conductivity	micromhos/cm (x1,000)
G-20																
G-21																
G-23A	27	26			30	33	38	30	34	30	32	35	31.5	4	Conductivity	micromhos/cm (x1,000)
G-24A	27	28			32.5	36	42	30	33	31	33	33	32.6	4	Conductivity	micromhos/cm (x1,000)
G-26A	26	25.5			29.5	32	38	27	30	28	30	29	29.5	4	Conductivity	micromhos/cm (x1,000)
G-27																
G-28																
G-30A	32	25			44.5	47	47	39	44	41	42	40	40.2	4	Conductivity	micromhos/cm (x1,000)
G-31A	32	34			40.5	43	48	38	42	39	40	36	39.3	4	Conductivity	micromhos/cm (x1,000)
G-33A	31	31			37.5	43	44	33	37	34	35	32.5	35.8	4	Conductivity	micromhos/cm (x1,000)
G-34																
G-34X																
G-35																
F-3																
F-4																
F-6																
F-7																
F-8																

**Golder  
Associates**

**SUBJECT** Total Dissolved Solids and Chloride Data for E-We's for 10/72, 11/72, and 12/72

Job No. 10390308

Made By: S. Major

Date 4/7/2011

Ref. Calc 006

Checked H. Frediani

Sheet 1 of 1

FPL TP Salt Orientation

Reviewed

The purpose of this calculation is to create a new spreadsheet with information obtained via email from FPL.

The email from Stacy Foster, dated April 5, 2011, (E-Series Well Data.msg) had several attachments containing Total Dissolved Solids (TDS) and Chlorides data for the E-Well.

These are:

E-Series\_WQ-Oct-18-1972.pdf

E-Series\_WQ-Nov-14-1972.pdf

E-Series\_WQ-Dec-18-1972.pdf

These documents were added to Calculation 1, file "references.xls" as Reference Numbers 21, 22, and 23, respectively.

These values were tabulated into a workbook called "TDS\_and\_Chlorides\_E\_Wells.xlsx", with one spreadsheet for

TDS and one spreadsheet for Chlorides.

All values were for 20' depth, with the exception of Well E-1 on 10/4/72, where the value for 40' depth was listed.

Average values were calculated for 20' and 40' depths.

	Total Dissolved Solids (ppm) @ 20' Depth (except where noted)												TDS (ppm)	
	10/2/1972	10/4/1972	10/6/1972	10/31/1972	11/1/1972	11/2/1972	12/5/1972	12/6/1972					Average at 20 feet	Average at 40 feet
E-1		32100		25500			28300						26,900	32,100
E-2		28500		29400			30300						29,400	
E-3			20000	20700			22400						21,033	
E-4			25500	27000			27300						26,600	
E-5			28400	28200			31000						29,200	
E-6			31740	10500			34100						25,447	
E-7	30300				33300			35000					32,867	
E-8	29700				31800			33800					31,767	
E-9	32100				31000			34800					32,633	
E-10	34100				38500			37200					36,600	
E-11	33400				32700			34300					33,467	
E-12	36000				33600			37500					35,700	
E-13	35000				35400			36100					35,500	
E-14	32500				31700			33300					32,500	
E-15	30900					30600		32400					31,500	
E-16	23700					28500		27900					26,700	
E-17	29800					31700		33300					31,600	
E-18	29700					37900		30400					32,667	
E-19	18700					18400		18500					18,533	
E-20			24400			20400		21000					21,933	
E-21			27400			31000		33000					30,467	
E-22	33300					34400		35300					34,333	
E-23	34700					33100		37000					34,933	

40' Depth



	Chloride (ppm) @ 20' Depth (except where noted)										Chloride (ppm)	
	10/2/1972	10/4/1972	10/6/1972	10/31/1972	11/1/1972	11/2/1972	12/5/1972	12/6/1972	Average at 20 feet		Average at 40 feet	
E-1		17250		15000			15250		15,125		17,250	
E-2		16250		15250			15750		15,750			
E-3			11250	10000			10750		10,667			
E-4			14750	13500			14000		14,083			
E-5			15000	14750			15750		15,167			
E-6			16750	5500			16000		12,750			
E-7	15750				18750			17750	17,417			
E-8	15750				16000			17250	16,333			
E-9	17250				16500			17500	17,083			
E-10	18750				18750			19250	18,917			
E-11	18500				18250			18750	18,500			
E-12	18250				19250			19750	19,083			
E-13	18500				18750			20000	19,083			
E-14	17250				17750			17750	17,583			
E-15	15500					17000		17500	16,667			
E-16	15250					15750		15500	15,500			
E-17	16750					17000		17500	17,083			
E-18	15750					16000		15500	15,750			
E-19	10250					9750		9750	9,917			
E-20			14500			12750		11000	12,750			
E-21			17250			16500		16500	16,750			
E-22	18500					19000		18750	18,750			
E-23	18000					18250		19250	18,500			

40' Depth