

# Quality Assessment Report for Water Quality Monitoring October - December 2005



Submitted to the  
Technical Oversight Committee

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## **Quality Assessment Report for Water Quality Monitoring October – December 2005**

### **I. Introduction**

This report is an assessment of the District laboratory analysis and field sampling for total phosphorus (TP) monitoring primarily for the following projects/stations during the fourth quarter of 2005:

- Conservation Area Inflow and Outflows (CAMB)  
S12A, S12B, S12C S12D, S333
- Everglades National Park Inflow Monitoring (ENP)  
S175, S176, S177, S18C, S332, S332D
- Everglades Protection Area (EVPA)  
LOX3 to LOX16
- Non-Everglades Construction Project (NECP)  
S334

Since field QC samples are collected for trips that include multiple project samples for the stations of interest, the report may also cover information on stations or projects other than those listed above.

The District's Field Sampling Quality Manual states the minimum requirement followed in field sample collection. The Laboratory Quality Manual states the minimum requirement followed in laboratory sample preparation and analysis, as well as in data verification and validation. A Project Monitoring Plan for the EVPA Project was revised and finalized on 9/14/05. This revision incorporates some improvements and clarifications to help ensure consistency in collection procedure and techniques. Further training to field sampling staff on Marsh Sampling was provided on 9/26/05. Discussions within the technical working group representing the District, ENP, and USFWS continued during this quarter.

The results of laboratory and field quality control during this quarter are presented in Sections II and III of this report. Included in this report is an analysis of the District laboratory's performance on split and inter-laboratory studies with FDEP and other laboratories for three selected projects, (i.e. EVPA, C111, and Everglades TP Round Robins), for a one-year period.

#### **Errata:**

An error on flagging of samples reported in the last quarter's QA report was noted recently. L28263-4 sample from EVPA Project Station Lox14, Collected 9/21/05, should not have been flagged. Consequently, the following sample should have been flagged instead: L28163-4, collected from C111 S332B Grab 9/07/05 EB>.002 mg/L. Database entries have been corrected at the time of preparing this present report.

## II. Field Sampling Quality Assessment

### A. Quality Control

Field QC measures consist of equipment blanks (EB), field-cleaned equipment blanks (FCEB), field blanks (FB), split samples (SS) and replicate samples (RS). Table 1 summarizes EB and FCEB results for all projects of interest to the TOC. All 157 blanks were within the acceptance criteria. Table 2 summarizes field precision results. Field sampling precision was acceptable.

Data not meeting the set criteria for blanks, field precision or sampling protocols are flagged using FDEP data qualifier codes. A comprehensive list of flagged data for all trips that include samples for CAMB, ENP, EVPA and NECP during this quarter is presented in Table 3.

Table 1. Field and equipment blank results

Type	Project	# Blanks collected	% ≤0.002	% >0.002	Action Taken
EB	CAMB	43	100	0	
	ENP	7	100	0	
	EVPA	3	100	0	
FCEB	CAMB	65	100	0	
	ENP	12	100	0	
	EVPA	19	100	0	
	NECP	7	100	0	
FB	CAMB	1	100	0	
Total		157			

Table 2. Field precision summary

Project	# of replicated stations	# replicates/station	Mean % RSD or RSD	Comments
CAMB	3	3	2.9	Precision criteria were met
ENP	1	3	7.6	Precision criteria were met
EVPA	2	3	12.1	Sample results were ≤ PQL
NECP	1	2	0	Precision criteria were met
Total	7			

#### Notes

- 1) All TP analyses were conducted by the District's Chemistry laboratory.
- 2) Field precision acceptance criteria: <20%. This criteria was applied only if sample values >PQL.
- 3) FB, FCEB and EB acceptance criteria: Must be ≤MDL.
- 4) Associated samples are flagged when concentrations are less than five times the resulting blank values for possibility of contamination.

Table 3. List of flagged data

None for samples that were collected during this quarter.

Table 4. Samples not collected and missing TP results

Project	Date Collected	Station	Comments
CAMB	10/3/05	S333	No Flow, no samples collected
CAMB	11/28/05	S12A	No Flow, no samples collected
CAMB	12/12/05	S12A	No Flow, no samples collected
ENP	10/4/05	S176	No Flow, no samples collected
ENP	11/1/05	S176	No Flow, no samples collected
ENP	11/8/05	S18C	No Flow, no samples collected
ENP	11/21/05	S18C	No Flow, no samples collected
ENP	11/29/05	S176	No Flow, no samples collected
ENP	12/6/05	S18C	No Flow, no samples collected
ENP	12/12/05	S18C	No Flow, no samples collected
ENP	12/20/05	S18C	No Flow, no samples collected
ENP	12/27/05	S176	No Flow, no samples collected
ENP	12/27/05	S18C	No Flow, no samples collected
EVPA	10/20/05	LOX13	Total depth <0.10m. No sample collected.

## B. Field Audits

During this quarter, an audit of field sampling collection activities was performed for the Miami Dade County DERM on the ENP, C111D and NECP projects on 11/15/05 and 11/16/05. The key findings were a) the autosampler sample was not being adequately mixed prior to processing the sample into the sample container, and b) a pre-cleaned autosampler bottle was included in the sampling train for the FCEB.

A second audit was performed on the USFWS sampling team collection for the EVPA project on 12/12/05. The key findings were: a) One piece of the sampling equipment train was not being rinsed with sample water adequately prior to sample processing; b) there were five deficiencies in documentation relating to omitted information.

## III. Laboratory Quality Control Assessment

On November 28, 2005, the District Chemistry laboratory updated its TP analytical procedures, based on Standard Methods SM4500P-F, from District Method 3100.1 revision 4.0 to 5.0. The procedure change involved the following key changes:

- 1) changed instrument, from segmented flow analysis to flow-injection type instrument
- 2) implemented a single analytical working range of analysis to bracket concentrations from 0.002-0.400 mg/L, instead of the old method of analysis in two analytical ranges: Low level - 0.002-0.200 mg/L, and High level - 0.200-2.00 mg/L.
- 3) eliminated a 1.8 mg/L organic (digestion) check, although this solution is still used for preparation of matrix spikes
- 4) changed concentration levels of QC1 and QC3 checks from 0.15 and 0.025 to 0.3 and 0.03 mg/L P, respectively.

The instrument change was necessary as the old instrument was at the end of its life cycle. Prior to implementation, a performance validation of the new instrument and method change were conducted and included data comparison of samples analyzed by both new and old instruments; evaluation of precision, spike recoveries, blank values, detection limits, reference materials; and Everglades Round Robin studies. Performance validation, also referred to as Initial Demonstration of Capability, is retained by the laboratory, in accordance with NELAC and Chapter 62-160, F.A.C. requirements.

Routine laboratory QC indicators include QC checks, matrix spikes, and precision checks. The QC charts and precision analyses presented in this report reflect the different levels of QC checks as follows:

- Figures 1-6      QC recoveries for the period from 10/1 – 11/29/2005 (former method)
- Figures 7-9      QC recoveries for the period from 11/30 – 12/31/2005 (new method)

A statistical evaluation of precision and matrix spike recoveries is also included. A portion of or an entire analytical run is generally rejected if QC recoveries are outside the set limits. Data are flagged accordingly if any deficiencies are noted and the samples have exceeded the required holding times and cannot be re-analyzed.

Recoveries for the QC samples are generally within  $\pm 10\%$  of the true value, which are acceptable. The MDL check (QC5), with a true value of 0.004 mg/L, had mean recoveries of 102% for both instruments. The daily MDL check results indicate that the laboratory has consistently achieved the goal of 0.002 mg/L MDL during this reporting quarter.

An organic check is a solution prepared from phytic acid, a stable form of organic phosphate. Recoveries for this check sample are between 97.7 – 102.6%, indicating that the digestion process was effective. The same material is used to prepare matrix spikes, the mean recovery for which were 103.2% (former method) and 102.5 % (new method)

The precision target for TP analysis during this period was  $<10.0\%$ ; mean %RPD was 1.6% and 0.8% for low (0 to 0.200 mg/L) and high level (0.200-2.00 mg/L) analyses, respectively. The maximum RPD during this period were 9.2% and 2.4% for low and high levels, respectively. Using the new method, the mean RPD was 1.4% and the maximum RPD was 6.8%.

#### **IV. Inter-Laboratory Quality Control Assessment**

##### **A. Split Studies**

To continually assess comparability of results, the District sends split samples to other laboratories on a routine basis. Data from split studies between FDEP and DISTRICT laboratories from March 2003 to November 2005 for the following programs were used in this analysis: EVPA Quarterly Splits (EVPA), Everglades TP Round Robin (ERR), and S332 sites (C111) (Appendix Table 1). Regression analysis of the data set was done separately for TP  $> 0.020$  mg/L and for TP  $< 0.020$  mg/L. Logarithmic transformation was done because of skewed data distribution. At  $< 0.02$  mg/L level, the slope is not significantly different from 1 and intercept is not significantly different from 0, indicating that the data from the two laboratories are highly comparable (Figures 10 and 11). At  $\geq 0.02$  mg/L, regression analysis indicate that the slope is different from 0, and intercept is not significantly different from 1. The degree of variability between the two laboratories at the low concentration levels is much higher than the variability at higher concentration levels, which affects these findings. At  $\geq 0.02$  mg/L level, there are also a couple of influential values that drive the outcome of the analysis.

Wilcoxon rank-sum tests indicate that there is significant difference in the results between the two laboratories (Table 5). The mean differences (District - FDEP TP), however are **-0.002** and **-0.003** mg/L for  $< 0.02$  and  $\geq 0.02$  mg/L TP concentrations, respectively. These difference values are at or below the laboratory MDLs.

These statistical analyses and findings were consistent with the FDEP Data Comparability Report (Nearhoof, presentation to TOC, 8/26/04).

## **B. National Proficiency Testing Results**

As a requirement for laboratory certification, the District's laboratory performs proficiency testing (PT) on environmental samples on a semi-annual basis. This study is administered by vendors that have been approved by the National Institute of Science and Technology.

The results of the October 2005 study are presented in Table 6.

## **IV. Glossary**

**Equipment blank (EB).** A general terminology used for analyte-free water that is processed on-site through all sampling equipment used in routine sample processing. Maybe an assessment of effectiveness of laboratory decontamination or on-site (field) decontamination (FCEB).

**Field Cleaned Equipment Blank (FCEB).** Analyte-free water that is processed on-site, after the first sampling site, through all sampling equipment used in routine sample processing. EB values are indicative of the effectiveness of the decontamination process.

**Field blank (FB).** Analyte-free water that is poured directly into the sample container on site during routine collection, preserved and kept open until sample collection is completed for the routine sample at that site. FB values are indicative of environmental contamination on site.

**Split sample (SS).** A second sample collected from the same sample obtained from the same sampling device. Results for SS are compared with routine sample results; agreement between these two results is mostly an indication of laboratory precision.

**Replicate sample (RS).** A second sample collected from the same source as the routine sample, using the same sampling equipment. RS data are compared to routine sample to evaluate sampling precision.

**Precision.** The agreement or closeness between two or more results and is an indication that the measurement system is operating consistently and is a quantifiable indication of variations introduced by the analytical systems over a given time and field sampling period.

**Accuracy.** The agreement between the actual obtained result and the expected result. QC check samples having known or "true" value are used to test for the accuracy of a measurement system.

**Method Detection Limit (MDL).** The smallest concentration of an analyte of interest that can be measured and reported with 99 percent confidence that the concentration is greater than zero. The MDL's are determined from the analysis of a sample in a given matrix, using accepted sampling and analytical preparation procedures, containing the analyte at a specified level. The MDL is determined by the protocol defined in section 40 CFR Part 136, Appendix B as established by the EPA.

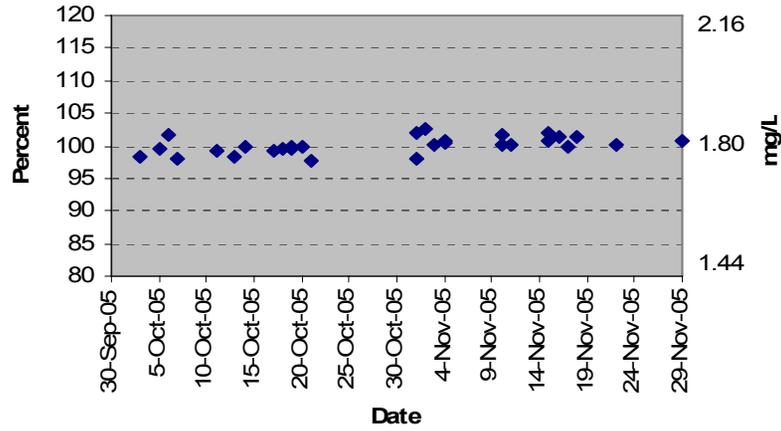
**Practical Quantitation Limit (PQL).** The smallest concentration of an analyte of interest that can be quantitatively reported with a specific degree of confidence. Generally, the PQL is 12 times the standard deviation that is derived from the procedure used to determine the MDL, or can be assumed to be 4 times the MDL.

**Relative Standard Deviation (RSD).** A measurement of precision, used when comparing more than two results. It is calculated as:  $\%RSD = [\text{Std. Deviation}/\text{Mean}] * 100$

**Relative Percent Difference (RPD).** A measure of precision, used when comparing two values. It is calculated as:  $\%RPD = [Value1 - Value2]/\text{Mean} * 100$ .

**Fig. 1**

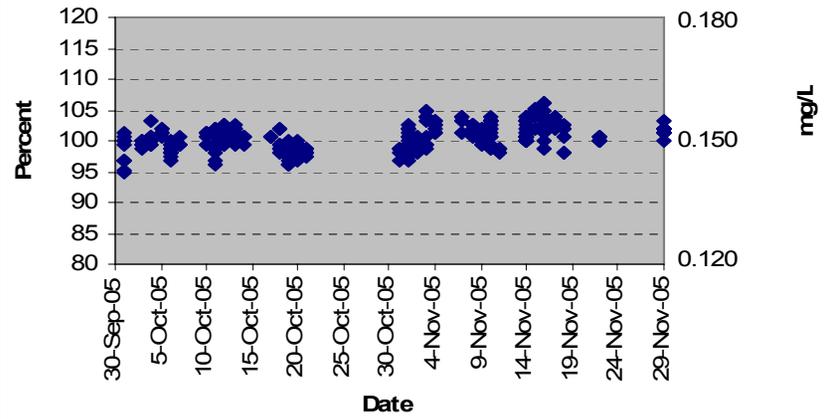
**TP Organic Check Recovery  
(TV=1.80 mg/L)**



Mean = 100.1%, Max = 102.6%, Min = 97.7%

**Fig. 2**

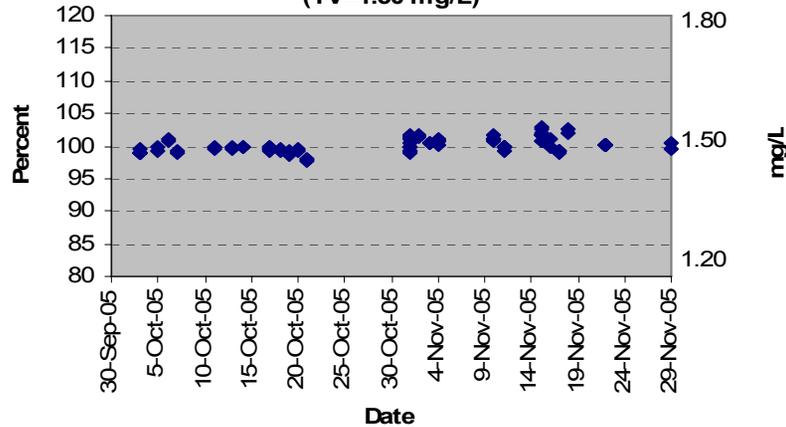
**TP QC1 Recovery  
(TV=0.150 mg/L)**



Mean = 100.6%, Max = 106%, Min = 94.7%

**Fig. 3**

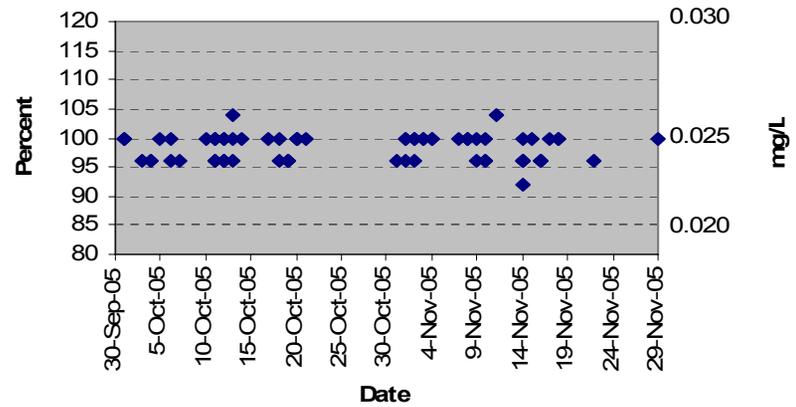
**TP QC2 Recovery  
(TV=1.50 mg/L)**



Mean = 100.2%, Max = 102.9%, Min = 97.8%

**Fig. 4**

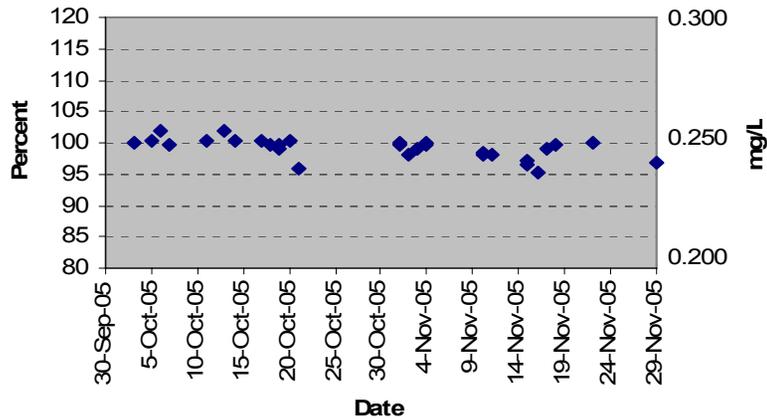
**TP QC3 Recovery  
(TV=0.025 mg/L)**



Mean = 98.3%, Max = 104%, Min = 92.0%

**Fig. 5**

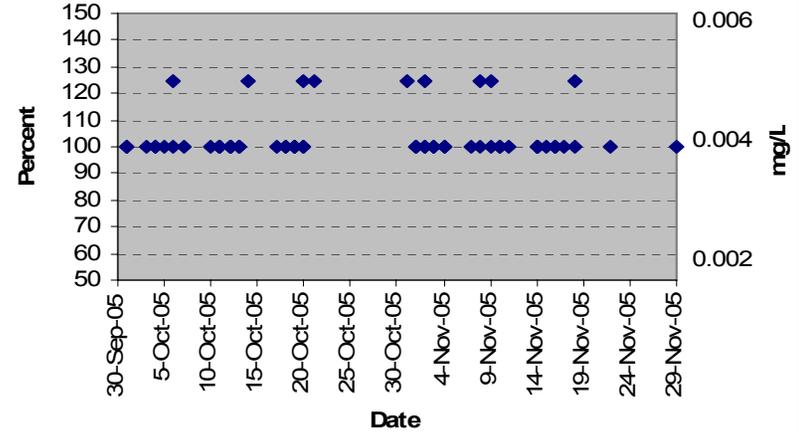
**TP QC4 Recovery  
(TV=0.250 mg/L)**



Mean = 99.1%, Max = 102.0%, Min = 95.2%

**Fig. 6**

**TP QC5 Recovery  
(TV=0.004 mg/L)**



Mean = 102%, Max = 125.0%, Min = 75.0%

**TP Spike Recovery Data, 10/1/05-11/29/05**

Acceptance Limit = 90-110%

Low and High Level

Min	91.2
Max	110
Mean	103.2
Std Dev	4.00
3xSD	11.99
LCL	91.2
UCL	115.2
N	252

**TP Precision Data, 10/1/05-11/29/05**

Acceptance Limit = <10%

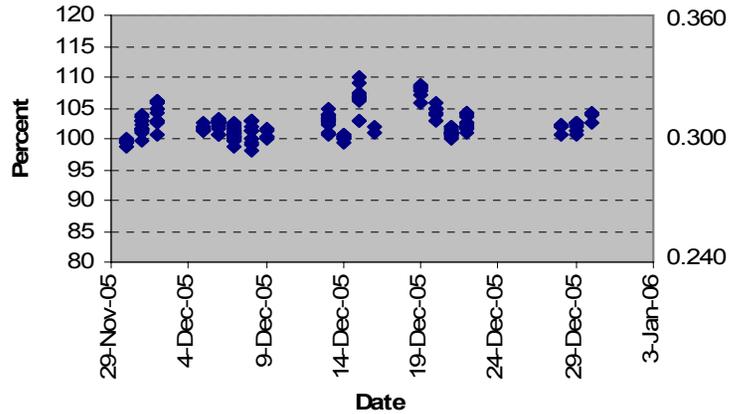
Low Level 0.002-0.200 mg/L

High Level 0.200-2.00 mg/L

Max	9.2	Max	2.4
Mean	1.6	Mean	0.8
Std Dev	1.73	Std Dev	0.66
3xSD	5.19	3xSD	1.97
UCL	6.8	UCL	2.7
n	199	n	40

**Fig. 7**

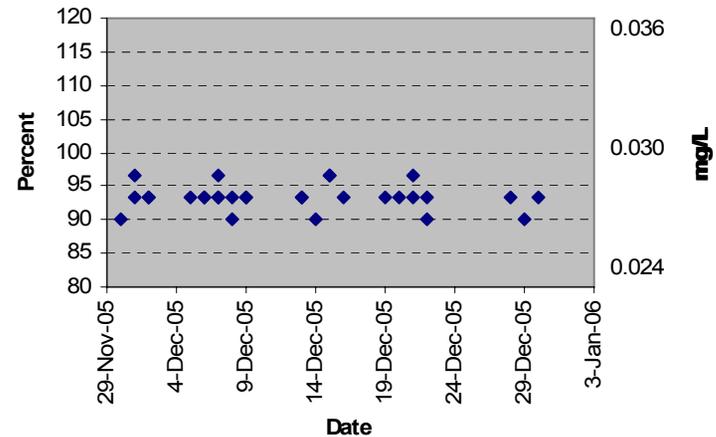
**TP QC1 Recovery**  
(TV=0.300 mg/L)



Mean = 102.5%, Max = 110.0%, Min = 98.0%

**Fig. 8**

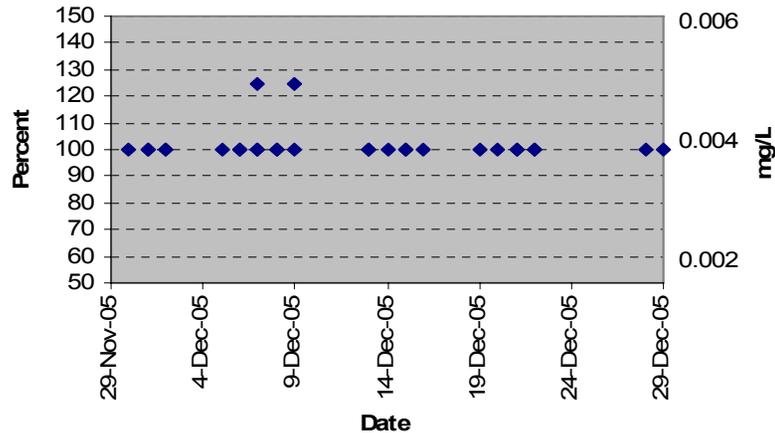
**TP QC3 Recovery**  
(TV=0.030 mg/L)



Mean = 93.3%, Max = 96.7%, Min = 90.0%

**Fig. 9**

**TP QC5 Recovery**  
(TV=0.004 mg/L)



Mean = 101.7%, Max = 125.0%, Min = 100.0%

**TP Precision Data,**  
**11/30/05-12/31/05**  
Acceptance Limit = <10%  
Working Range (0.002-0.400  
mg/L)

**TP Spike Recovery Data,**  
**11/30/05-12/31/05**  
Acceptance Limit = 90-110%  
Working Range (0.002-0.400  
mg/L)

Max	6.8	Min	62.5 <sup>1</sup>
Mean	1.4	Max	110
Std Dev	1.36	Mean	102.5
3xSD	4.08	Std Dev	4.96
UCL	5.5	3xSD	14.88
n	114	LCL	87.7
		UCL	117.4
		n	122

<sup>1</sup> One spike recovery was reported below minimum criteria. Low recovery was attributed to matrix interference and associated data flagged.

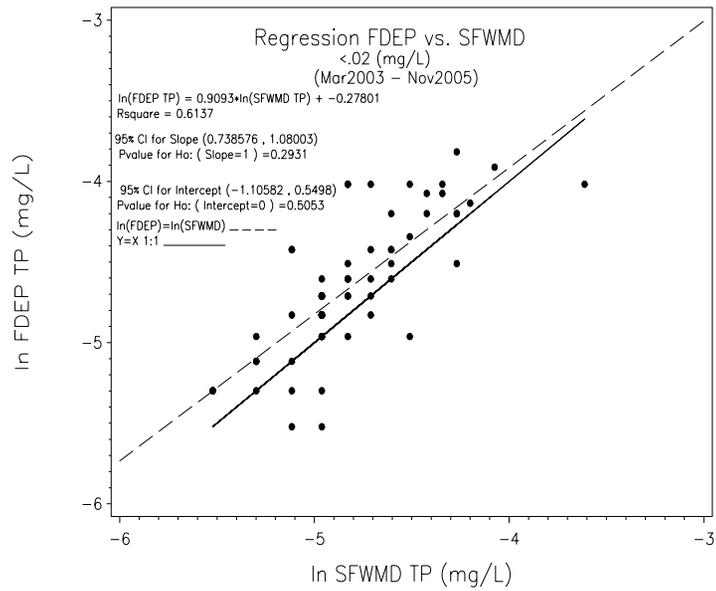


Fig.10. Regression Analysis for TP<0.020 mg/L

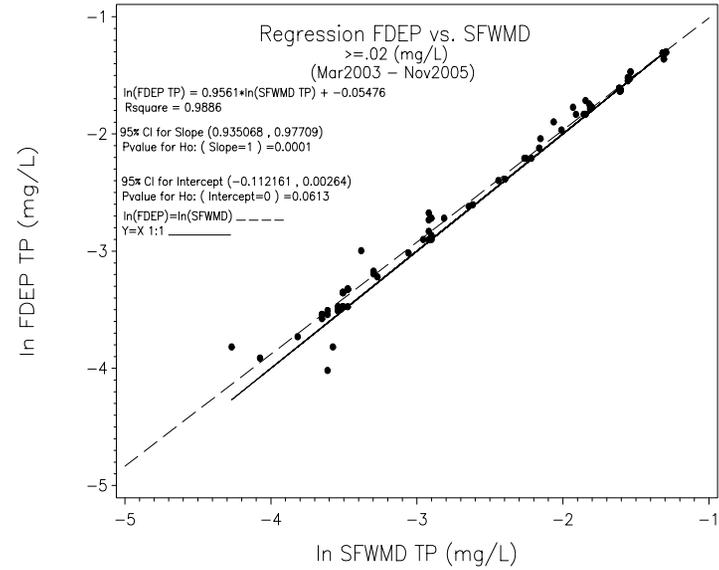


Fig.11. Regression Analysis for TP≥0.020 mg/L

Table 5. Statistical Comparison of SFWMD and FDEP Split Phosphorus Samples, (3/2003 – 11/2005)

Concentration Level	Summary Statistics				
	Lab	N	Mean	Median	
All Data	FDEP	166	0.069	0.03	
	SFWMD	166	0.066	0.029	
	Statistical Test of Hypotheses				
	Summary Of Paired Differences		Hypothesis	Statistical Test	Pvalue
	Mean of Differences	-0.003	Mean of Differences = 0	Student's t	<.0001
	Median of Differences	-0.002	Median of Differences = 0	Signed Rank	<.0001
	<0.02 mg/L	Summary Statistics			
Lab		N	Mean	Median	
FDEP		73	0.010	0.009	
SFWMD		73	0.008	0.007	
Statistical Test of Hypotheses					
Summary Of Paired Differences		Hypothesis	Statistical Test	Pvalue	
Mean of Differences		-0.002	Mean of Differences = 0	Student's t	<.0001
Median of Differences	-0.001	Median of Differences = 0	Signed Rank	<.0001	
>=0.02 mg/L	Summary Statistics				
	Lab	N	Mean	Median	
	FDEP	96	0.112	0.071	
	SFWMD	96	0.109	0.066	
	Statistical Test of Hypotheses				
	Summary Of Paired Differences		Hypothesis	Statistical Test	Pvalue
	Mean of Differences	-0.003	Mean of Differences = 0	Student's t	<.0001
Median of Differences	-0.002	Median of Differences = 0	Signed Rank	<.0001	

Note: 1) Differences were calculated as (DISTRICT TP - FDEP TP)\*  
 2) Analysis excludes values <0.004 mg/L

Table 6. Laboratory Proficiency Testing Results for TP, October 2005

Sample I.D	Reported Value, mg/L	Assigned Value, mg/L	%Recovery	Status	Z-Score
Sample 1 (WP)	8.59	8.73	98.4	Acceptable	-0.331
Sample 2 (ERA-QC)	3.67	3.70	99.2	Acceptable	-0.14

WP=water pollution; ERA=Environmental Resource Assoc.

Appendix Table 1. Results of TP split studies between DISTRICT and FDEP laboratories, 3/2003 to 12/2005.

Sample	Date	SFWMD	DEP	%RPD	Comments
EVPA	3/10/2003	0.116	0.130		
EVPA	3/10/2003	0.008	0.010		
EVPA	3/10/2003	0.008	0.011		
EVPA	3/11/2003	0.008	0.010		
EVPA	3/11/2003	0.008	0.010		
EVPA	3/11/2003	0.009	0.010		
S332B-041503-1000	4/15/2003	0.009	0.012		
S332C-041503-1200	4/15/2003	0.008	0.009		
S332DDZE-041503-1400	4/15/2003	0.004	0.005		
S332B-052703-0935	5/27/2003	0.007	0.009		
S332C-052703-1130	5/27/2003	0.007	0.008		
S332DDZE-052703-1430	5/27/2003	0.004	0.005		
S332BWeir-062403-110	6/9/2003	0.01	0.011		
EVPA	6/16/2003	0.104	0.110		
EVPA	6/16/2003	0.006	0.012		
EVPA	6/17/2003	0.007	0.008		
EVPA	6/17/2003	0.007	0.008		
EVPA	6/17/2003	0.009	0.009		
EVPA	6/17/2003	0.009	0.008		
S332DDZE-062403-1600	6/24/2003	0.005	-0.004		
S332B-072203-1000	7/22/2003	0.007	0.005		
S332C-072203-1200	7/22/2003	0.006	0.004		
S332DDZE-072203-1500	7/22/2003	0.003	-0.004		
S332B-081903-1345	8/19/2003	0.004	0.005		
S332C-081903-1100	8/19/2003	0.004	-0.004		
S332DDZE-081903-0830	8/19/2003	0.005	0.005		
EVPA	9/8/2003	0.148	0.160	7.8	
EVPA	9/8/2003	0.014	0.011	24	
EVPA	9/9/2003	0.006	0.008		<PQL
EVPA	9/9/2003	0.007	0.008		<PQL
EVPA	9/21/2003	0.215	0.230	6.7	
EVPA	9/21/2003	0.008	0.018	76.9	
EVPA	9/21/2003	0.014	0.015	6.9	
EVPA	9/21/2003	0.012	0.015	22.2	
S332B-093003-1200	9/30/2003	0.004	0.005		<PQL
S332C-093003-1030	9/30/2003	0.006	0.005		<PQL
S332DDZE-093003-0800	9/30/2003	0.004	-0.004		<PQL
S339-093003-0000	9/30/2003	0.052	0.055	5.6	
S339-093003-0800	9/30/2003	0.087	0.091	4.5	
S339-093003-1600	9/30/2003	0.105	0.110	4.6	
ERR-14	10/1/2003	0.055	0.057	3.6	
ERR-14	10/1/2003	0.055	0.055	0	
ERR-14	10/1/2003	0.054	0.055	1.8	
ERR-14	10/1/2003	0.055	0.056	1.8	
ERR-14	10/1/2003	0.164	0.170	3.6	
ERR-14	10/1/2003	0.162	0.175	7.7	
ERR-14	10/1/2003	0.163	0.167	2.4	
ERR-14	10/1/2003	0.164	0.171	4.1	

Sample	Date	SFWMD	DEP	%RPD	Comments
ERR-14	10/1/2003	0.005	0.007		<PQL
ERR-14	10/1/2003	0.005	0.006		<PQL
ERR-14	10/1/2003	0.005	0.006		<PQL
ERR-14	10/1/2003	0.037	0.042	13	
ERR-14	10/1/2003	0.037	0.041	10	
ERR-14	10/1/2003	0.038	0.040	5.1	
ERR-14	10/1/2003	0.010	0.012	18	
ERR-14	10/1/2003	0.010	0.010	0	
ERR-14	10/1/2003	0.011	0.007		<PQL
ERR-14	10/1/2003	0.010	0.012	18	
ERR-15	10/28/2003	0.268	0.270	0.7	
ERR-15	10/28/2003	0.274	0.272	0.7	
ERR-15	10/28/2003	0.270	0.257	4.9	
ERR-15	10/28/2003	0.199	0.200	0.5	
ERR-15	10/28/2003	0.201	0.197	2	
ERR-15	10/28/2003	0.200	0.195	2.5	
ERR-15	10/28/2003	0.200	0.199	0.5	
ERR-15	10/28/2003	0.030	0.031	3.3	
ERR-15	10/28/2003	0.030	0.035	15	
ERR-15	10/28/2003	0.031	0.036	15	
ERR-15	10/28/2003	0.031	0.036	15	
ERR-15	10/28/2003	0.029	0.030	3.4	
ERR-15	10/28/2003	0.029	0.031	6.7	
ERR-15	10/28/2003	0.030	0.035	15	
ERR-15	10/28/2003	0.007	0.009		<PQL
ERR-15	10/28/2003	0.007	0.008		<PQL
ERR-15	10/28/2003	0.007	0.007		<PQL
ERR-15	10/28/2003	0.007	0.008		<PQL
S332B-102803-1500	10/28/2003	0.005	-0.004		<PQL
S332C-102803-1300	10/28/2003	0.006	-0.004		<PQL
S332DDZE-102803-0800	10/28/2003	0.004	-0.004		<PQL
S339-102803-0000	10/28/2003	0.071	0.073	2.8	
S339-102803-0800	10/28/2003	0.054	0.059	8.8	
S339-102803-1600	10/28/2003	0.109	0.110	0.9	
S332B-120903-1300	12/9/2003	0.006	0.012		<PQL
S332C-120903-1100	12/9/2003	0.007	0.004		<PQL
S332DDZE-120903-0800	12/9/2003	0.004	-0.004		<PQL
S339-120903-0000	12/9/2003	0.115	0.120	4.2	
S339-120903-0800	12/9/2003	0.073	0.074	1.4	
S339-120903-1600	12/9/2003	0.091	0.092	1.1	
EVPA	12/15/2003	0.127	0.150	17	
EVPA	12/15/2003	0.010	0.015	40.0	Heavy suspended solids
EVPA	12/15/2003	0.011	0.013	17.0	Heavy suspended solids
EVPA	12/15/2003	0.013	0.018	32.0	Heavy suspended solids
EVPA	3/8/2004	0.031	0.031	0	
EVPA	3/8/2004	0.028	0.022	24.0	Heavy suspended solids
EVPA	3/8/2004	0.017	0.020	16	
EVPA	3/8/2004	0.006	0.006	<PQL	
EVPA	6/14/2004	0.047	0.049	4.2	

Sample	Date	SFWMD	DEP	%RPD	Comments
EVPA	6/14/2004	0.034	0.050	38	Heavy suspended solids
EVPA	6/14/2004	0.158	0.160	1.2	
EVPA	6/14/2004	0.156	0.160	2.5	
EVPA	9/21/2004	0.215	0.230	6.7	Dark brown stain
EVPA	9/21/2004	0.008	0.018	76.9	
EVPA	9/21/2004	0.014	0.015	6.9	
EVPA	9/21/2004	0.012	0.017	22.2	
ERR-15	10/28/2004	0.268	0.270	0.7	
ERR-15	10/28/2004	0.274	0.272	0.7	
ERR-15	10/28/2004	0.270	0.257	4.9	
ERR-15	10/28/2004	0.199	0.200	0.5	
ERR-15	10/28/2004	0.201	0.197	2	
ERR-15	10/28/2004	0.200	0.195	2.5	
ERR-15	10/28/2004	0.200	0.199	0.5	
ERR-15	10/28/2004	0.030	0.031	3.3	
ERR-15	10/28/2004	0.030	0.035	15	
ERR-15	10/28/2004	0.031	0.036	15	
ERR-15	10/28/2004	0.031	0.036	15	
ERR-15	10/28/2004	0.029	0.030	3.4	
ERR-15	10/28/2004	0.029	0.031	6.7	
ERR-15	10/28/2004	0.030	0.035	15	
ERR-15	10/28/2004	0.007	0.009		<PQL
ERR-15	10/28/2004	0.007	0.008		<PQL
ERR-15	10/28/2004	0.007	0.007		<PQL
ERR-15	10/28/2004	0.007	0.008		<PQL
EVPA	12/13/2004	0.013	0.017	26.7	
EVPA	12/13/2004	0.014	0.022	44.4	
EVPA	12/13/2004	0.011	0.018	48.3	
EVPA	12/13/2004	0.158	0.180	13.0	
EVPA	3/7/2005	0.134	0.140	4.4	
EVPA	3/7/2005	0.015	0.016	6.5	
EVPA	3/7/2005	0.026	0.029	10.9	
EVPA	3/7/2005	0.009	0.018	66.7	
EVPA	6/13/2005	0.145	0.170	15.9	
EVPA	6/13/2005	0.027	0.018	40	
EVPA	6/13/2005	0.027	0.030	10.5	
EVPA	6/13/2005	0.022	0.024	8.7	
EVPA	9/19/2005	0.165	0.170	3	
EVPA	9/19/2005	0.163	0.170	4.2	
EVPA	9/19/2005	0.007	0.010		<PQL
EVPA	9/19/2005	0.008	0.007		<PQL
ERR-16	11/2/2005	0.027	0.029	7.1	
ERR-16	11/2/2005	0.026	0.028	7.4	
ERR-16	11/2/2005	0.026	0.029	10.9	
ERR-16	11/2/2005	0.026	0.029	10.9	
ERR-16	11/2/2005	0.007	0.008		<PQL
ERR-16	11/2/2005	0.007	0.008		<PQL
ERR-16	11/2/2005	0.007	0.008		<PQL
ERR-16	11/2/2005	0.007	0.009		<PQL

<b>Sample</b>	<b>Date</b>	<b>SFWMD</b>	<b>DEP</b>	<b>%RPD</b>	<b>Comments</b>
ERR-16	11/2/2005	0.060	0.066	9.5	
ERR-16	11/2/2005	0.055	0.066	18.2	
ERR-16	11/2/2005	0.054	0.065	18.5	
ERR-16	11/2/2005	0.054	0.069	24.4	
ERR-16	11/2/2005	0.214	0.217	1.4	
ERR-16	11/2/2005	0.211	0.213	0.9	
ERR-16	11/2/2005	0.211	0.219	3.7	
ERR-16	11/2/2005	0.007	0.009		<PQL
ERR-16	11/2/2005	0.008	0.009		<PQL
ERR-16	11/2/2005	0.007	0.009		<PQL