Final Report
Baffle Box Effectiveness Monitoring Project
DEP Contract No. S0236

For

Florida Department of Environmental Protection

And

Sarasota County Board of County Commissioners
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Executive Summary

GPI Southeast, Inc. (GPI-SE) was engaged by Sarasota County using funding from the Florida Department of Environmental Protection (FDEP) to determine the pollutant removal effectiveness of Type 1 and Type 2 baffle box BMPs. Type 2 baffle boxes have horizontal sieve screens above the pipe inverts so that floating organic matter and suspended sediments can be trapped above the water filled vaults. The design hypothesis for the screen is that organic matter trapped above the water will not leach nutrients into the water filled vault below. Type 1 baffle boxes do not have horizontal sieve screens, rather, they have swinging vertical screens that are ineffective for capturing debris.

A mass loading methodology was developed for long term monitoring and evaluation of the mass removal of stormwater pollutants by baffle boxes and applied to four full scale field installations in Florida. Two Type 1 baffle boxes in Stuart and two Type 2 baffle boxes were monitored, one in Rockledge and one in Sarasota. A primary objective of the monitoring was to determine if Type 2 baffle boxes were more effective than Type 1 baffle boxes at removing nutrient mass loadings associated with organic debris trapped in the screens. All four baffle boxes were monitored for over two years for seven or more storm events using a combination of influent and effluent autosamplers to measure water column pollutants as Event Mean Concentrations (EMCs), and manual cleaning of sediment and debris from screens and vaults to measure masses of settleable and floating pollutants. Fourteen pollutants were monitored under this program, but the principal pollutants of concern were Total Nitrogen and Total Phosphorus.

A quantitative evaluative methodology was devised to estimate and compare the total pollutant mass removal in the water column, bottom chamber material, and strainer screen material trapped in a baffle box. Results from monitoring the four baffle boxes are shown in Table 1.

The results of this study clearly demonstrated that Type 2 baffle boxes are more effective than Type 1 baffle boxes for removing TN and TP from stormwater runoff. The improved effectiveness is attributed to the horizontal screens used in Type 2 baffle boxes. The mass of nutrient material collected in the screens exceeded the mass of nutrients in the water column. At both Type 2 baffle box locations there were significant masses of leaves collected from the vault boxes, indicating that the screens were only partially effective in removing leaves from stormwater flows.

Site	Baffle Box Type	TN Mass Removal Efficiency (%)	TP Mass Removal Efficiency (%)	TN EMC Removal Efficiency (%)	TP EMC Removal Efficiency (%)	Fecal Coliform EMC Removal Efficiency (%)
Parkway Blvd, Stuart	1	0.03	0.06	5.60	-15.30	-4.2
Lincoln Lane, Stuart	1	1.00	4.50	-8.30	1.50	-89
Average Type 1		**0.50**	**2.30**	**-1.35**	**-6.90**	**-47**
Little John Lane, Rockledge	2	28.10	19.40	-11.30	-8.20	-249
Oriole Drive, Sarasota	2	10.00	11.60	30.60	21.60	13.1
Average Type 2		**19.05**	**15.50**	**9.65**	**6.70**	**-1188**

Table 1 – Baffle box pollutant removal efficiencies

Note: TN and TP mass removal efficiencies for Type 2 baffle boxes are from watersheds with at least 44% tree canopy coverage. Since the majority of the gross solids collected in Type 2 baffle boxes was leaf material, watersheds with less than 44% tree canopy coverage will have lower mass removal efficiencies than shown in Table 1.

Both Type 1 and Type 2 baffle boxes showed net exports of fecal coliforms. Interevent sampling of Type 2 vault box water showed anaerobic conditions indicative of biological decomposition of organic material (predominantly leaves) leading to bacterial growth.

Monitoring results definitively showed that when performing an assessment of pollutant removals by baffle boxes, one must be cognizant of the materials not captured by typical autosamplers, including larger size sediment particles, large floating and suspended organic matter, and the pollutants associated with these materials. Using water column EMCs as the sole measure of performance can significantly underestimate loading reduction of stormwater constituents.

Upstream watershed characteristics greatly influence the mass removal efficiency of baffle boxes. The use of Type 2 baffle box BMPs are recommended when:

1. The pollutants targeted for reduction are nutrient based, and
2. There are no upstream BMPs such as ponds, exfiltration trenches, swales, inlet traps, or other filtration unit processes, and
3. The streets in the watershed have curb and gutters, and
4. The tree canopy coverage in the watershed exceeds 25%.

Background

Urban stormwater is an aqueous matrix containing a highly heterogeneous ensemble of solid components that span a size range from dissolved and colloidal to tens of centimeters (Roesner et al., 2007; Rushton et al., 2009). Stormwater solids include suspended sediment, bedload material transported by ablation, and large floating and suspended materials including grass, leaves, twigs and human derived trash. The size, density, and organic and inorganic composition of stormwater solids are highly variable. These factors greatly affect solids transport in conveyance systems and the amenability of stormwater solids to treatment through physical processes of skimming, straining, sedimentation, and filtration.

Although significant effort has been expended in characterizing solids removal by stormwater treatment devices, an approach is lacking that can unify the disparate components of stormwater solids in an integrated monitoring and evaluation framework. A number of factors hamper this effort. Urban stormwater runoff has extremely variable flowrates. The mass and composition of stormwater solids can change significantly over the course of single runoff events, and are influenced by factors including soil type, topography, land use, and magnitude of runoff (Kim and Sansalone, 2008). No single sampling technique is adequate for all types of stormwater solids. Stormwater treatment systems vary significantly in their design and configuration, and differential retention of solids components occurs at various applied flowrates. High flowrates can scour and remove previously deposited solids. These factors make it difficult to develop standardized monitoring protocols that represent solids content across the entire range of solids size and density (Clark et al., 2009; Strecker et al., 2001). Stormwater solids are also significant in affecting the fate and transport of urban stormwater constituents that sorb to stormwater solids or that are elemental components of the solid material itself. Stormwater constituents associated with solids include nitrogen (Taylor et al., 2005), phosphorus (Settle et al., 2007), heavy metals (Davis and Birch, 2009; Sansalone and Ying, 2008; Herngren et al., 2005), pathogenic indicator organisms (Characklis et al., 2005), and polycyclic aromatic hydrocarbons (Lau et al., 2009; Jartun et al., 2008; Hwang and Foster, 2006; Brown and Peake, 2006). Stormwater loadings of these constituents are a significant driver of impaired water quality and are inseparably linked to the retention of stormwater solids by treatment devices.

A standardized system for classifying stormwater solids was recently proposed based on particle sizes (Roesner et al., 2007). The size categories of stormwater solids were defined as *dissolved* (<2μm), *fine* (2-75μm), *coarse* (75μm–5 mm) and *gross* (> 5mm). The 2μm filter is similar to nominal filter pore sizes used in standard total suspended solids analyses, and delineates dissolved and colloidal materials that are typically not removed in sedimentation-based treatment devices. The No. 200 Sieve (75 μm) is the dividing boundary of *fine* and *coarse* stormwater solids and is the Unified Soil Classification System (USCS) divide defining the division between silt and sand (ASTM, 2006). *Fine* stormwater solids include clay, silt, and organic detritus from decomposition of larger organic materials. The No. 4

Sieve (5 mm) divides *coarse* from *gross* stormwater solids, and distinguishes between sand and gravel in USCS. *Coarse* solids include sand sized sediment and larger inorganic solids, organic detritus, larger organic solids such as leaf components, and human derived solids. *Gross* solids larger than 5mm include coarse sediment, organic matter such as twigs, leaves, grass, and pine needles, and human derived solids such as plastics, paper containers, styrofoam, and glass.

The ability of treatment devices to remove constituents of urban stormwater has traditionally focused on reduction of concentrations in flow weighted water column samples. For example, the International BMP Database provides an extensive compilation of performance evaluations of stormwater treatment devices for numerous water quality parameters (ASCE, 2009) and monitoring guidance for producing appropriate data sets (EPA, 2002). The primary performance metric employed by the database is flow weighted composite samples of influent and effluent water column, defined as EMCs. Autosampler-based EMC data are commonly used in many evaluations of stormwater treatment performance (Lee at al., 2007; Kim et al., 2005).

The traditional EMC approach is based on the use of autosamplers to collect flow composited samples of influent and effluent. A weakness in using EMCs is that autosamplers cannot sample the entire range of stormwater solids. This report uses an approach based upon the recommendations of the ASCE Guidelines for Monitoring Stormwater Gross Solids (Rushton, et.al. 2009) to estimate baffle box pollutant removal on a mass removal basis, including a description of a specifically designed monitoring program and a quantitative evaluative methodology. The goal of this approach is to measure masses of pollutants 1) in the water column using traditional EMC values and conversion factors, 2) in the sediment and herbaceous material accumulated in the bottom chamber, and 3) in the sediment and herbaceous material collected in the screens above the water. Summing of the masses removed continuously over a two year period will enable calculation of annual mass removal efficiency. Using a mass based efficiency calculation will give a more accurate evaluation of baffle box performance than just an EMC based calculation.

Experimental Evaluation

Baffle Box Technology

The baffle box is a structural stormwater treatment device that contains a series of settling chambers separated by baffles (Fig. 1). The unit processes utilized are sedimentation and filtration. In Florida, baffle boxes are used in retrofit scenarios where typical new development BMPs cannot be employed. A baffle box can be used with single or multiple inflow pipes and in offline or online designs. The “Type 2” baffle box is distinguished from the “Type 1” baffle box in that the Type 2 contains a sieve screen located above the water filled bottom chambers and collects larger floating and suspended materials.

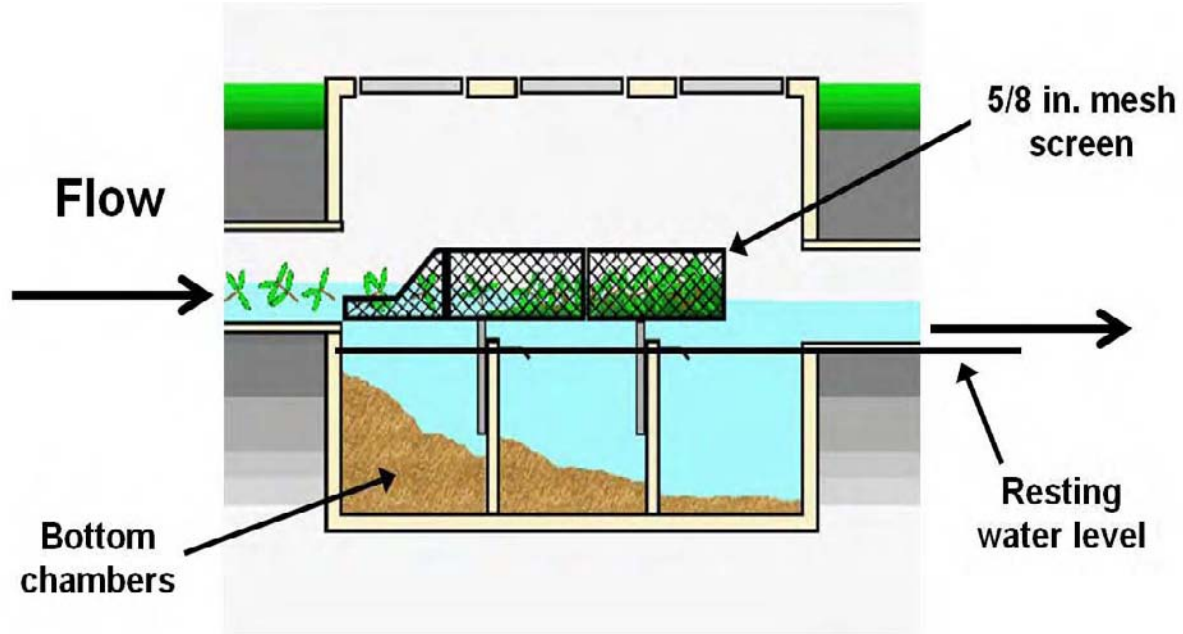

Figure 1- Schematic of Type 2 baffle box showing sieve screen

Capture of stormwater sediment particles through the sedimentation unit process in a baffle box is a function of the particle size and density. Larger stormwater particles that move by ablation along the bottom of the influent pipe immediately settle into the chambers upon entry into the baffle box. Organic matter has a lower density than inorganic particles, making the capture of an equivalent size organic particle less likely than an inorganic particle with intrinsic density of 2.5 g/cc (Kayhanian, et al., 2008). Organic material consisting of ground up organic debris cannot be distinguished or separated from inorganic sediment. Standard methods used for TSS analysis do not differentiate between organic and inorganic sediments, leading to inherent inaccuracies in calculations of organic loadings in stormwater based solely on TSS measurements. In this study, the Percent Organic Matter test was used to determine the fraction of the dry mass of solids collected in the baffle boxes that was organic.

The Type 2 baffle boxes contain a basket-shaped strainer screen with 1.3 to 2 cm openings that is mounted above the bottom chamber baffles (Fig. 2). The strainer screen provides a second mechanism for removal of stormwater solids. Larger floating and suspended materials, including leaves, pine needles, and natural and human derived trash and debris, are retained on the screen by physical straining. Material captured in the baffle box screen during runoff events is held above the surface of the water column in interevent periods, thus reducing the potential for leaching of constituents into the water column and

Figure 1 - Sieve strainer screen of Type 2 baffle box

enhancing the opportunity to dry. Material that is captured and retained by the screens can form a mat on the screen surface, reducing the effective size of openings through which runoff passes. The result is the retention of stormwater particles that are smaller than the screen openings.

Project Sites

In order to monitor a baffle box or any BMP in the field, it is critical to choose a location that allows the researcher to control the flow and water quality variables to a degree that provides accurate results. Taking the laboratory to the field is difficult. Site selection criteria that were used for this baffle box monitoring program included:

- The baffle box had one influent pipe and one effluent pipe.
- There were no base flows through the pipes.
- There were no bypass flows during large storms.
- There were no backflows into the baffle box from adjacent streams, bays, or ocean.
- The baffle box was not located in a roadway. Access dictated a location outside of the pavement for safety reasons.
- For the rain gauge and solar panels to operate there was no tree coverage over the site.
- The autosamplers are expensive equipment. A site was chosen in neighborhoods where the vandalism potential was low. There was room for a theft proof enclosure to be placed in a yard or next to a road. Adjacent property owners were canvassed to ensure their cooperation with technicians accessing equipment at any hour.
- Technicians were able to park vehicles adjacent to the site to perform collection activities. Lane closures of roadways were avoided.

- In this study leaf collection was a major objective for the Type 2 baffle boxes. Therefore drainage basins were chosen for the Type 2 boxes that had significant tree canopy coverage.
- All four drainage basins were chosen with primarily residential land use in order to have similar pollutant loadings.
- The interior of the BMPs had sufficient clearance and access to enable a technician to install equipment and take samples.
- The sites were within reasonable driving distance of technicians making weekly visits to inspect and calibrate equipment.
- At the Type 2 locations there were no upstream BMPs in the drainage basin, including roadside swales that would filter pollutants, especially gross solids, before they entered the baffle box. The roadways had curb and gutters.

The monitoring study was conducted on four full-scale baffle boxes in Florida. Characteristics of the baffle boxes that were monitored in this study are summarized in Table 2. The Rockledge and two Stuart sites were located on the eastern central coast of Florida. Sutron Corporation was used to collect data at the three east coast sites. The Sarasota site was located on Florida's southwest coast. Due to the long distances between Sarasota and the east coast sites, a Sarasota based PBSJ office was chosen for data collection at the Oriole Drive site. The laboratories used for analyses of samples from the east coast sites were Harbor Branch Environmental, Inc., Genapure Analytical Services, Inc., and Mactec Engineering and Consulting, Inc. The laboratories used for the Oriole Drive sample analysis of the Sarasota site were Sanders Laboratories, Inc., U.S. Biosystems, and Mactec Engineering and Consulting, Inc.

All four baffle boxes evaluated in the study had a single entrance pipe and a single discharge pipe. Land uses of the contributing drainage basins were single family residential and light commercial as summarized in Table 3. Delineations of the contributing watersheds were shown in Figs. 3 through 6.

Little John Lane Baffle Box (Rockledge) – Type 2

The Little John Lane Baffle Box site receives runoff from a 16.18 acre drainage basin. The land use is single family residential with Type A soils and 0.4 acre lots. The streets have curb and gutter. There is a 44% tree canopy coverage, principally oak trees, in the basin that contribute to high levels of leaves trapped in the baffle box. All of the runoff is transported by sheet flow along the gutters until it reaches the intersection of Little John Lane and Rockledge Drive where 2 grated inlets intercept the water and small pipes convey the water to the baffle box. The grade of the land is steep, falling 15 feet from Brevard Ave. eastward to the Indian River.

Oriole Drive Baffle Box (Sarasota) – Type 2

There are 21 acres in the Oriole Drive drainage basin consisting of single family land use. The lots are ¾ to 1.0 acre in size. The roads have curb and gutters and storm drains throughout the basin. Oak and pine tree coverage in the basin is 86.8%. The grade of the land is moderate from east to west. Soil types in the area are B/D.

Lincoln Lane Baffle Box (Stuart) – Type 1

The drainage basin for this baffle box consists of 102.91 acres of mixed used residential, light industrial, and park land uses. Almost all of the basin has curb and gutters. A well developed stormdrain pipe system conveys water throughout the basin. The basin topography is flat with long times of concentration. In the northern end of the basin there are both a regional and two private wet detention ponds providing treatment for 27.85 acres. This treated area has curb and gutters. Downstream of those wet ponds there is no other stormwater treatment for the remaining 75.06 acres. Ground water west of the railroad tracks is low due to the low elevation of the adjacent Poppleton Creek. The soils in the basin are classified as Type A soils with high infiltration rates. Tree canopy coverage in the basin area downstream of the ponds is 9%. The trees are mostly isolated and scattered throughout the basin. Few of the trees are adjacent to streets where leaves could easily enter the storm drains. During the first seven months of monitoring, which corresponded to a drought period, the baffle box had no base flows from the upstream ponds. During the remainder of the monitoring period after the drought broke there were base flows measured through the baffle box.

Parkway Lane Baffle Box (Stuart) – Type 1

This baffle box receives runoff from 23.28 acres of single family residential property. There are no curb and gutters and no roadside swales. Most of the runoff in the basin is conveyed by sheet flow along the streets. There is one 900 foot long run of pipe leading to the baffle box. North of 7th Street, between SE Madison and SE Fini Drive, there is a vegetated swale in the alley receiving water from the northern parts of the drainage basin. The swale has a number of berms to create a series of cascading retention swales that lead to SE 7th. The ground water in much of the basin should be low due to the low elevation of the adjacent Krueger Creek. Soils in the drainage basin are predominantly B soils with moderate infiltration. There is only 7.5% tree coverage in the drainage basin. Topography in the basin is flat with low flow velocities and little erosion.

Site	Baffle Box Type[1]	Inner Length, ft.	Inner Width, ft.	Plan Area, ft^2	Number of Chambers
Little John Drive, Rockledge City	2	9.83	5.00	49.2	3
Oriole Drive, Sarasota	2	9.00	5.00	45.0	3
Lincoln Avenue, Stuart City	1	9.00	4.17	37.5	3
SE Parkway Drive, Stuart City	1	9.00	4.17	37.5	3

[1]Type 1 does not include strainer screen; Type 2 includes strainer screen.

Table 2 - Four baffle boxes monitored in study

Site	Baffle Box Type	Drainage Basin (ac)	Curb and Gutter	Tree Coverage (%)	Upstream BMP
Parkway Blvd	1	23.28	No	9	Swales
Lincoln Lane	1	102.91	No	7.5	Ponds
Little John Lane	2	16.18	Yes	44	N/A
Oriole Drive	2	21	Yes	86.8	N/A

Table 3 - Watershed characteristics

Figure 2 - Rockledge baffle box project location and watershed

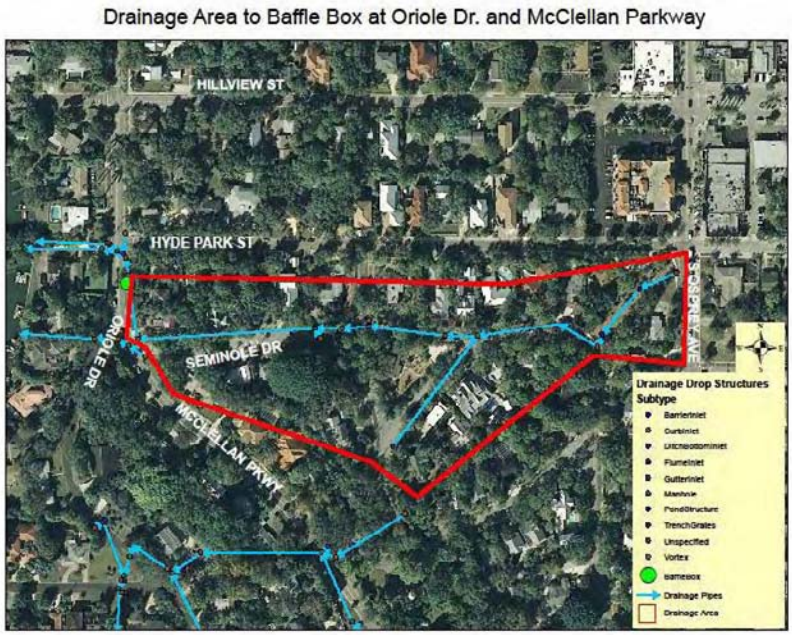

Figure 3 - Sarasota baffle box project location and watershed

Figure 4 - Lincoln baffle box project location and watershed

Figure 5 - Parkway baffle box project location and watershed

Monitoring Approach

The primary objectives of this project were to 1) provide a comprehensive representation of all pollutant masses removed by the baffle boxes, 2) compare the performance of Type 1 vs. Type 2 baffle boxes, and 3) provide recommendations for site selection criteria for use of baffle box BMPs. The monitoring program was developed to include three separate components:

- *Water column*: autosamplers to collect flow composited samples of baffle box influent and effluent in runoff events to develop EMCs;
- *Bottom chamber material*: discreet monitoring to determine total accumulated mass and to perform physical and chemical analyses; and
- *Strainer screen materials*: quantifying total volume and captured mass of captured materials including gross solids components and to perform physical and chemical analyses of representative samples.

To relate and integrate monitoring results for all three solids components, continuous flow monitoring over the whole test period allowed matching the three sampling components to their appropriate time frames and volumetric data. For instance, water column samples were matched to storm event flows that were high enough to trip autosampling. Gross solids samples were matched to total volumes of flow between sampling events, including the storms too small to trip the autosampler. Based upon the completeness of flow data at each baffle box site, a common time period was chosen at each site to combine the water column and gross solids data, enabling total mass calculations over the common time period.

Multiple influent and effluent EMC pairs were used to represent overall water column removals over the common time period. The materials that accumulated in the bottom chamber and strainer screen were not amenable to event-based autosampler monitoring, requiring a different sampling approach. For solids collected in the bottom chamber and strainer screen, the total mass of solids that accumulated during the study period was determined by completely cleaning the baffle box at the start and end of the common study period, and by accounting for all mass removed through during the study period ($t_{start} < t < t_{end}$). The common period of operation was defined by the initial baffle box cleanout (t_{start}) and the final cleanout (t_{end}). Physical and chemical analyses of accumulated solids in the bottom chamber and strainer screen materials was performed on materials collected at the end of the study period and was not able to account for decomposition of collected material that may have occurred during storage.

Water Column Sampling and Analysis

Water column sampling and analyses methods were described in the Baffle Box Testing Program Final Quality Assurance Project Plan (QAPP) (Sutron Corporation, 2006) (QAPP), approved by FDEP. Baffle boxes were equipped with a rain gauge (ISCO 674), two refrigerated Portable Sequential Samplers (ISCO 6712), and an Area-Velocity Flow Module (ISCO 750). Flowlink software was used to program the flow meter, collect precipitation data, and instruct autosamplers to initiate sample collection when cumulative event precipitation reached 0.508 cm. Autosampler initiation was also constrained by analyte holding times and laboratory availability. Flow composited samples were poured into prepared HDPE containers, placed on ice and shipped to the analytical laboratory within allocated holding times, except where noted. Seven or more individual runoff events were monitored at each baffle box and a flow record was maintained through the study. Analyses performed on water column samples are listed in Table 4. Composite samples were analyzed using EPA methods for Total Suspended Solids (160.2), Total Kjeldahl Nitrogen (351.2), Ammonia (350.1), Nitrate+Nitrite (353.2), Total Phosphorus (365.1), Orthophosphate (365.1), and heavy metals (EPA 200.7). Grab samples were utilized to test for Fecal Coliforms (SM 18-9222D).

Per the QAPP, sampling events were initially set to occur after 0.2 inches of rain in a 30 minute time period. Sampling of several storms of this small magnitude resulted in sampling volumes too small to send to the lab. In order to meet the temporal nature of rainfall at the Rockledge and Stuart sites, several adjustments to the tripping criteria were tried, with the final criteria being a 0.4-inch storm in 15 minutes.

Holding times were the maximum time between sample collection and lab analysis. Holding times defined the time windows that could be used for autosampler collection, technician travel to site, sample preparation, shipping, lab receipt, and lab analysis. The QAPP defined holding times for the various parameters analyzed. The minimum holding times for water column samples were 4 hours for fecal coliform and 48 hours for Orthophosphate. Laboratories generally do not work overtime, meaning only storms occurring before 12:00 P.M. could be sampled to meet the fecal coliform holding time. Many storms in Florida occur in the afternoon and evenings. For the first few months numerous afternoon storms were missed due to this holding time limitation. After consultation with FDEP the QAPP was amended to allow testing for fecal coliforms with grab samples independently from the autosampler samples and fecal tests became optional if the technician could reach the site during the morning hours. This QAPP revision allowed collection of storm samples any time of the day or night.

At the Rockledge site a problem was encountered with the flow meter incorrectly recording data. The meter was recalibrated, then replaced, but still was showing erratic flows during storms. An inspection of the downstream pipe showed numerous spider webs hanging from the pipe soffit that were full of leaves. During storms these dangling spider webs over the flow meter caused interference with the readings. After removing the spider webs no further problems were encountered with the flow meter.

At the Sarasota site there were several set up problems and equipment failures in the first year. As a result, only one of the first five sampling events met QAQC protocols and was fully usable.

Parameter	Matrix	Units	Method	Precision (% RSD)	Accuracy (% Recovery)
Sieve Analysis (5 screens: #20, #40, #80, #100, <#200)	Sediment/Solid	N/A	ASTM D422	N/A	N/A
Percent Organic Matter	Sediment/Solid	%	ASTM D2974	N/A	N/A
Density	Sediment/Solid	g/cc	ASTM D2937	N/A	N/A
Total Nitrogen	Sediment/Solid	mg/kg	EPA/CE81	12	64 - 136
Chemical Oxygen Demand	Sediment/Solid	mg/kg	EPA 410.4	12	71 - 136
Total Phosphorus	Sediment/Solid	mg/kg	EPA 365.4	14	70 - 132
Mercury	Sediment/Solid	mg/kg	EPA 7470	12	67-141
Aluminum	Sediment/Solid	mg/kg	EPA 6010	15	80 - 116
Barium	Sediment/Solid	mg/kg	EPA 6010	9	88 - 111
Chromium	Sediment/Solid	mg/kg	EPA 6010	7	88 - 112
Cadmium	Sediment/Solid	mg/kg	EPA 6010	8	89 - 113
Iron	Sediment/Solid	mg/kg	EPA 6010	18	79 - 138
Nickel	Sediment/Solid	mg/kg	EPA 6010	7	85 - 111
Zinc	Sediment/Solid	mg/kg	EPA 6010	18	80 - 125
Copper	Sediment/Solid	mg/kg	EPA 6010	17	84 - 120
Acenaphthylene	Sediment/Solid	µg/kg	EPA 8270	22	36 - 122
Benzo(a)pyrene	Sediment/Solid	µg/kg	EPA 8270	9	55 - 117
Benzo(g,h,i)perylene	Sediment/Solid	µg/kg	EPA 8270	13	56 - 123
Fluoranthene	Sediment/Solid	µg/kg	EPA 8270	20	50 - 126
Fluorene	Sediment/Solid	µg/kg	EPA 8270	14	40 - 131
1-Methylnaphthalene	Sediment/Solid	µg/kg	EPA 8270	18	25 - 113
Naphthalene	Sediment/Solid	µg/kg	EPA 8270	21	27 - 112
Pyrene	Sediment/Solid	µg/kg	EPA 8270	13	51 - 121

Table 4 – Parameters measured

Bottom Chamber Sampling and Analysis

Samples collected from Type 1 baffle box bottom chambers were almost entirely sediment or decomposed organic material. At the Lincoln Lane site 3,014 pounds of material were collected over the sampling period. At the Parkway Lane site only 87 pounds of material was collected over the sampling period.

Bottom chamber sampling and analyses methods were described in the QAPP. The bottom chambers were sampled and cleaned at the end of each sampling period on the dates shown below. There was so little sediment accumulation in the Parkway baffle box that only one cleaning operation was performed at the end of the project. Cleanout masses are shown in Tables 15 – 18.

At the Sarasota site only one bottom chamber sediment sample was correctly performed, on 11/15/2007. On 1/27/2009 County crews inadvertently cleaned the bottom chamber and sieve screens without the knowledge of PBSJ. Two other baffle boxes not associated with the project were also cleaned on the same day and the materials from all three baffle boxes were mixed and deposited at a County facility. Samples were taken of the mixed material from all three baffle boxes; however, sediment sampling results for this event were considered to be inaccurate.

Site	Cleanout #	Date
Little John Drive, Rockledge City	1	11/6/2007
	2	3/9/2009
Oriole Drive, Sarasota	1	11/15/2007
	2	1/27/2009
Lincoln Avenue, Stuart City	1	12/6/2007
	2	2/26/2009
SE Parkway Drive, Stuart City	1	2/26/2009

Table 5 – Dates of box cleanouts

Before sampling, the depth of sediment was measured at multiple points in each chamber and total bulk volume was calculated using the average depth and chamber cross sectional areas. Sediment sampling and analyses were conducted following recommended procedures (EPA, 2001) designated in the QAPP. For each chamber, numerous sediment samples were collected with a Stainless Steel Petite Ponar, mixed, placed into Ziploc bags for geotechnical analyses, into glass bottles for inorganics and metals analyses, and into glass bottles with Teflon lids for organics analyses. Ziploc bag samples for each separate chamber were shipped to the geotechnical laboratory. In the laboratory, a single composite sample was assembled for geotechnical analyses by combining samples from each bottom chamber in proportion to the volume accumulated in that chamber. Geotechnical analyses were conducted according to American Society for Testing and Materials methods (ASTM, 2009) and included wet and dry density (D2937), percent organic matter (D2974), and sieve analysis for Particle Size Distribution (D422). Glass bottle samples for each separate chamber were placed on ice for shipment. In the analytical laboratory, single composite samples for chemical analyses was assembled by combining material from each of the three chambers in proportion to the volume accumulated in each chamber. Analyses were conducted by the following EPA methods: Chemical Oxygen Demand (410.4), Total Nitrogen (351.2/353.2), Total Phosphorus (365.4), metals (6010), mercury (7470), and Polycyclic Aromatic Hydrocarbons (8270). The geotechnical and chemical analyses results for the composite samples were used to represent the entire mass of solids removed from the bottom chambers at the end of the common study period (t_{final}). A list of analyses performed for material collected from the bottom chambers of the baffle boxes is listed in Table 4.

Field sampling showed that materials in the bottom chambers of the Rockledge and Sarasota baffle boxes were a mixture of sediment and leaves that had not been trapped in the screen. See photographs in Appendix A. Laboratory analyses of composite bottom chamber samples indicated the percentage of the bottom chamber materials that were organic were 12.6% to 16.7% for Rockledge and 55.8% for Sarasota baffle boxes. Percent Organic Material collected in the Stuart baffle boxes were 5.8% for Lincoln, and 7.5% for Parkway. The higher levels of bottom chamber organic content at the Rockledge and Sarasota baffle boxes were ostensibly due to leaf and organic materials that had bypassed the sieve screen or to finer organic breakdown products that had passed through the screen.

Results of the bottom chamber sampling were used to represent the entire mass of solids removed from the bottom chambers from all four baffle boxes over the common study periods.

Sieve Screen Sampling and Analysis

Type 2 baffle boxes screens are designed to trap gross solids, primarily organic debris, and keep the material above the water in the vault, thus preventing nutrients from leaching into the vault water and out to receiving waters. At the two sites monitored, the organic debris was almost entirely leaves. There was no significant accumulation of grass clippings in the debris. Observations of collected mass in both Type 2 baffle boxes showed that after leaf mass collected just a few centimeters on the screens, the screen openings became blocked and the leaves became fine filters that trapped sediment as well as fine organic debris. The resulting mass of trapped material and sediment had very low porosity causing water to become trapped in the matted material and ponding above the vault water level in a micro pond in the basket. Interevent observations showed that the organic material stayed moist and sometimes submerged for days after a rain event. Ponded water in the screen was turbid even though water in the vault was clear, indicating that nutrients were leaching out of the organic debris. In addition, material collected from the vault chambers had a high number of leaves, demonstrating that the screens were only partially successful in keeping organic debris out of the water filled vaults.

Sieve screen sampling and analyses methods were described in the QAPP. The material captured on the strainer screen was removed nine and five times over the course of the study for Rockledge and Sarasota, respectively. Total masses cleaned are shown in Tables 15 – 18.

Site	Cleanout #	Date
Little John Drive, Rockledge City	1	3/13/2007
	2	3/28/2007
	3	4/20/2007
	4	8/1/2007
	5	11/6/2007
	6	2/14/2008
	7	6/18/2008
	8	9/9/2008
	9	3/9/2009
Oriole Drive, Sarasota	1	2/13/2007
	2	7/26/2007
	3	11/15/2007
	4	7/17/2008
	5	1/27/2009

Table 6 – Sieve screen cleanout dates

This material was a combination of leaves, organic debris, and sediment. For each removal event, the bulk volume of accumulated material was first estimated from the average depth and plan area of the strainer screen. The material was placed in plastic bags and weighed in an as-collected state. Strainer screen materials were processed for geotechnical and chemical analyses at the conclusion of the common study periods (t_{end}). After bulk volume determination, the accumulated material was removed from the screens, weighed and transported to an indoor processing facility. All of the material was spread out at approximately two-inch thickness on a polyethylene sheet to air-dry for 48 hours. The material was then mixed and spread to a thickness of ½ inch and air-dried for an additional 72 hours. The material was mixed again, and human-derived trash was removed and quantified.

The material was then divided into a grid with 20 regions. A large polypropylene scoop was used to collect 20 individual samples that were placed in empty polypropylene beakers (empty weights were recorded before material was collected). The beakers containing the sampled material were dried for several days until the material was sufficiently dry to enable the fine sediment particles to be separated from the larger materials (predominantly leaves) using a 1mm mesh non metallic screen. The separation process was accomplished by moving the large material gently back and forth over the 1 mm grid screen, such that smaller particles were able to dissociate from the larger material while the leaves did not break apart. The separation screen was placed over a tared polypropylene beaker. The weight of the tared collecting beaker plus the material passing through the 1 mm screen was recorded before sending samples to geotechnical and analytical laboratories. The remaining mass of the large sized material, from which the smaller sediment was derived, was removed and recorded before preparing samples for shipment to geotechnical and analytical laboratories.

Samples of material > 1mm and < 1 mm were placed in Ziploc bags and shipped in a cooler to the geotechnical laboratory. Geotechnical analyses were conducted according to ASTM methods and included wet and dry density (D2937), percent organic matter (D2974), and sieve analysis for Particle Size Distribution (D422). Samples of > 1mm and < 1 mm materials were placed in glass bottles for inorganics and metals analyses, and glass bottles with Teflon lids for organics analyses, and shipped on ice to the analytical laboratory. Analyses were conducted by the following EPA methods: Chemical Oxygen Demand (410.4), Total Nitrogen (351.2/353.2), Total Phosphorus (365.4), metals (6010), mercury (7470), and Polycyclic Aromatic Hydrocarbons (8270). The analyses used for sieve screen samples are listed in Table 4. The results of geotechnical and chemical analyses of composite samples were used to represent the entire mass of solids removed from the strainer screen of the Rockledge and Sarasota baffle boxes over the common study periods.

Performance Assessment Methodology

Storm Event Scale-Up

Mass removals for the common periods were calculated individually for three components: 1) water column runoff, 2) material accumulated in bottom chambers, and 3) material accumulated on the strainer screen. Due to sampling thresholds, equipment failures, holding time limitations, and not sampling during Tropical Storm Fay for safety reasons, water column monitoring was not conducted for all runoff events that occurred in the common study period. However total flow volumes passing through the baffle boxes were recorded during the common study period. Therefore total water column mass removals were scaled up based on the ratio of total runoff volume during the common study period to the total monitored runoff volume:

$$R = \frac{Volume_{tot}}{Volume_n} = \frac{\sum_{i=1,tot} Volume_i}{\sum_{i=1,n} Volume_i} \quad (1)$$

where: R = ratio of total runoff volume to monitored event runoff volume (-)
tot = total runoff events in common period
n = monitored runoff events in common period
$Volume_i$ = volume of runoff event i (liter)

Estimation of Mass Removals

Total water column mass removal over the common periods were estimated as the sum of mass removals for the monitored events, scaled up to the total runoff volume treated by the baffle boxes during the study period.

$$Mass_{WCM} = \sum_{i=1,n} Volume_i * \left(EMC_{inf_i} - EMC_{eff_i}\right) * R \quad (2)$$

where: $Mass_{WCM}$ = water column mass removal in common period, (mg)
EMC_{effi} = influent EMC of runoff event i, (mg/L)
EMC_{effi} = effluent EMC of runoff event i, (mg/L)

Mass removals of stormwater pollutants in bottom chamber materials were calculated as the product of the accumulated bulk volume, its dry bulk density, and the solids pollutant concentration.

$$Mass_{BCM} = Volume_{bcm} * \rho_{bulk,bcm} * q_{bcm} \quad (3)$$

where: $Mass_{BCM}$ = mass removed in bottom chamber in common period, (mg)
$Volume_{bcm}$ = bulk volume of bottom chamber material removed, (liter)

$\rho_{bulk,bcm}$ = bulk density of bottom chamber material, (kg/L)
q_{bcm} = solid phase constituent concentration, (mg/)

Mass removals of stormwater constituents in strainer screen materials were calculated as the product of the accumulated bulk volume, its dry bulk density, and the solid phase concentration.

$$Mass_{SSM} = Volume_{ssm} * \rho_{bulk,ssm} * q_{ssm} \quad (4)$$

where: $Mass_{SSM}$= mass removed in strainer screen in common period, (mg)
$Volume_{ssm}$ = bulk volume of strainer screen material removed (liter)
$\rho_{bulk,ssm}$ = bulk density of strainer screen material, (kg/L)
q_{ssm} = solid phase constituent concentration, (mg/kg)

Equivalent Concentration

Traditional testing methods for the water column use an EMC measurement at the inflow and outflow points of a BMP. The difference in concentrations gives the percent removal efficiency of the device for one storm or group of storms based on the water column measurements. This method cannot be used for measuring gross solids because there is no method for measuring gross solids entering and leaving the BMP. The only measurement is mass of gross solids trapped in the BMP. Taking mass samples of gross solids upstream of the BMP would invalidate the measurement of masses trapped in the BMP.

Therefore an alternative method was used to determine the mass removal efficiency of the Rockledge baffle box. Whole mass measurements (not samples) of effluent and gross solids leaving the baffle box were taken with a specially designed screening device, see Appendix A. While this device accurately captured large floating gross solids, its ability to capture bypass sediment particles was limited to visual rather then measured quantification. Results from the bypass test showed a 99% capture efficiency for the Rockledge baffle box, i.e. the mass of leaves and sediment captured in the bypass device were only a few grams, whereas the masses captured in the baffle box were hundreds of pounds. By summing the total mass of gross solids trapped in the baffle box with the total mass leaving the baffle box, the total influent gross solids mass was calculated.

The equivalent concentration of captured solids and associated constituents is that which would occur if the captured material were homogenized and distributed uniformly into the entire volume of runoff treated during the common study period., (mg/L)

$$EC_{BCM} = \frac{Mass_{BCM}}{Volume_{tot}} \quad (5)$$

$$EC_{SSM} = \frac{Mass_{SSM}}{Volume_{tot}} \quad (6)$$

where: EC_{BCM} = equivalent concentration of bottom chamber material (mg/L)
EC_{SSM} = equivalent concentration of strainer screen material (mg/L) (7)

Derived Efficiency

The baffle box monitoring configuration was not able to fully measure all components of stormwater solids entering and leaving the baffle boxes, precluding conventional approaches to estimating mass removal efficiency. A new approach was developed to estimate mass removal efficieny for the baffle boxes in this study, based on the assumption that the influent water column samples plus the accumulation of solids in the baffle box account for all influent discharge mass, while effluent water column samples account for all discharge mass. The calculated mass removal efficiency is here termed the Derived Efficiency, and is calculated for individual constituents over the common period:

$$DE = \frac{Mass_{BCM} + Mass_{SSM}}{Mass_{BCM} + Mass_{SSM} + Mass_{WC,Eff}} \text{ x } 100 \qquad (8)$$

where: DE = derived efficiency in common period. The DE is an upper limit of removal efficiency because any passage of larger solids into the discharge would reduce the calculated efficiency.

Results and Discussion

Monitored Periods and Storm Events

Baffle box monitoring periods are shown in Table 7, along with days of operation, total treated volume, and water column scale-up factor for constituent mass. Monitored storm events are listed in Table 8, including precipitation associated with the monitored storm event and the total treated volume. A runoff volume time series for the Rockledge baffle box is shown in Figure 7, which illustrates the dates at which the individual storm event monitoring was conducted. The cumulative distribution of runoff events for Rockledge is shown in Figure 8, along with the position of the monitored storm events on the runoff volume distribution. Similar plots are shown for the Sarasota, Lincoln, and Parkway baffle boxes in Figures 9 through 14. Visual inspection of runoff distribution plots indicated that treated volumes of the monitored storm events were reasonably distributed over the runoff volumes

Site	Start Date	End Date	Number of Days	Total Volume, million gallon	Treated Runoff Volume, inch/year	Monitored Storm Volume, million gallon	Water Column Scale Up Factor
Little John Drive, Rockledge City	10/11/06	3/9/09	880	2.94	2.8	0.290	10.1
Oriole Drive, Sarasota	11/1/06	1/27/09	818	13.0	10.2	1.16	11.2
Lincoln Avenue, Stuart City	10/2/06	2/26/09	878	17.9	2.7	0.232	77.2
SE Parkway Drive, Stuart City	10/2/06	2/26/09	878	5.79	3.8	0.560	10.3

Table 7 - Baffle box monitoring periods

Storm Event Number	Little John Drive, Rockledge City			Oriole Drive, Sarasota			Lincoln Avenue, Stuart City			SE Parkway Drive, Stuart City		
	Date	Precip., in	Runoff Volume, gal.	Date	Precip., in	Runoff Volume, gal.	Date	Precip., in	Runoff Volume, gal.	Date	Precip., in	Runoff Volume, gal.
1	3/16/07	0.52	12,765	11/16/06	0.86	33,791	4/10/07	1.11	30,693	5/14/07	1.19	29,020
2	4/10/07	0.81	17,932	12/21/07	0.48	75,241	5/13/07	0.72	11,362	7/25/07	0.46	2,306
3	7/24/07	0.41	17,249	6/21/08	0.61	46,855	5/14/07	0.72	25,639	8/14/07	2.34	165,267
4	7/31/07	0.79	36,207	7/6/08	1.24	122,926	5/24/07	0.27	10,503	12/14/07	0.74	20,311
5	8/2/07	1.47	77,943	8/4/08	0.67	91,645	7/23/07	0.42	35,146	3/6/08	2.32	377,526
6	8/23/07	0.92	43,817	8/8/08	1.16	197,450	7/25/07	0.68	40,321	3/30/08	2.61	291,140
7	10/18/07	1.24	53,900	8/9/08	0.79	108,026	7/30/07	0.49	43,728	10/18/08	1.30	46,646
8	2/12/08	0.89	30,392	9/9/08	2.72	395,393	2/12/08	1.16	34,748	-	-	-
9	-	-	-	9/30/08	0.50	24,639	-	-	-	-	-	-
10	-	-	-	10/6/08	0.91	32,968	-	-	-	-	-	-
11	-	-	-	1/13/09	0.71	30,745	-	-	-	-	-	-

Table 8 – Monitored storm events

treated by the baffle boxes over the time period of the study. The flow rate data collected by flow monitors was used directly to calculate treated volume for three of the four baffle boxes; a different procedure was applied to the Lincoln Ave. baffle box volume data due to a baseflow component providing significant flow volumes on single or multiple days with zero precipitation.

Due to the sampling and monitoring failures at the Sarasota site, autosampling data was compromised on several occasions. Gross solids mass cleanout data at that location was also compromised. The mass cleaned on 1/27/2009 from the screens and bottom chamber were estimated from County records rather from PBSJ measurements. Laboratory sampling of bottom sediments were qualified as being from a combination of three baffle boxes rather than just the Oriole baffle box. The overall usefulness of data from the Sarasota site was limited and did not meet program goals. Result summaries of pollutant removals from the Sarasota site are adjusted to reflect the time periods of accurate data collection.

Data collection at the other three sites had minor problems typically encountered in field sampling, but nothing significant like the Sarasota site. Therefore, the Rockledge site data collection over the entire time period was accurate and will be referenced more heavily than the Sarasota site for summaries and conclusions.

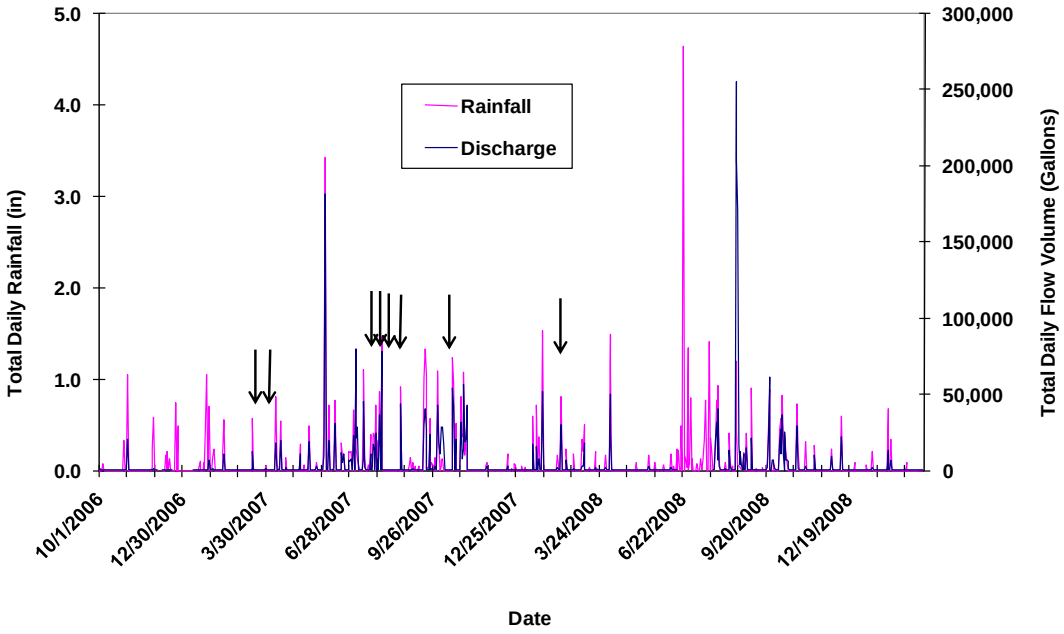

Figure 6 - Rockledge flow record showing monitored storm events

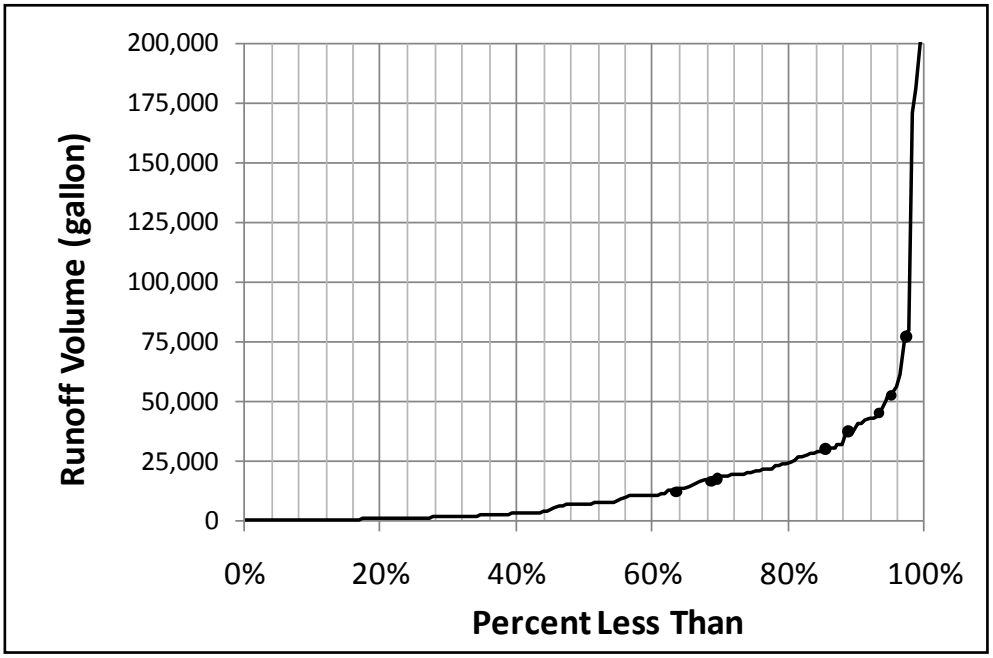

Figure 7 - Rockledge cumulative runoff distribution showing monitored storm events

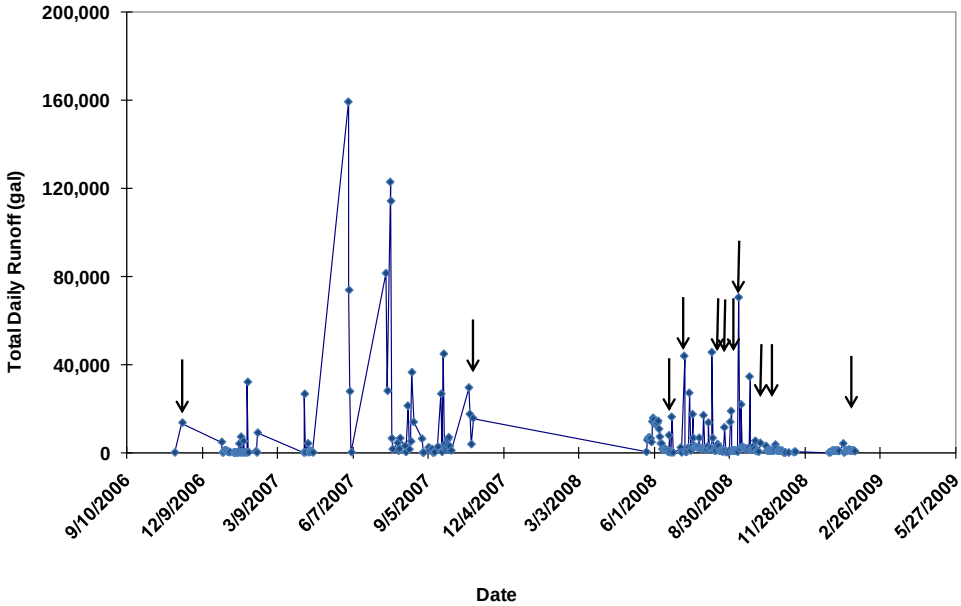

Figure 8 - Sarasota flow record showing monitored storm events

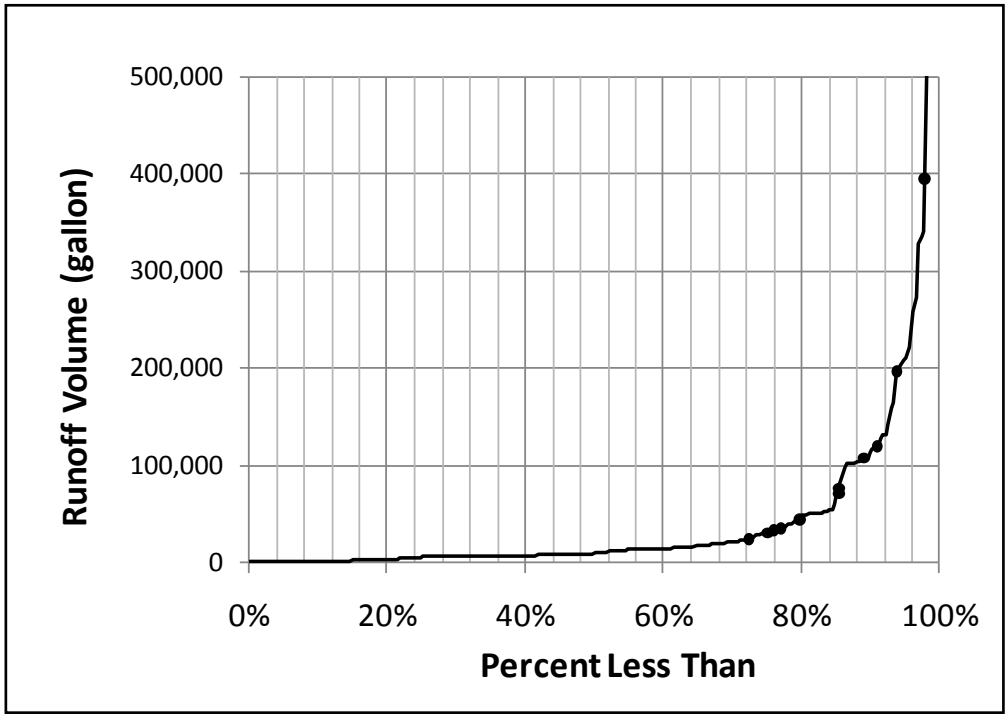

Figure 9 - Sarasota cumulative runoff distribution showing monitored storm events

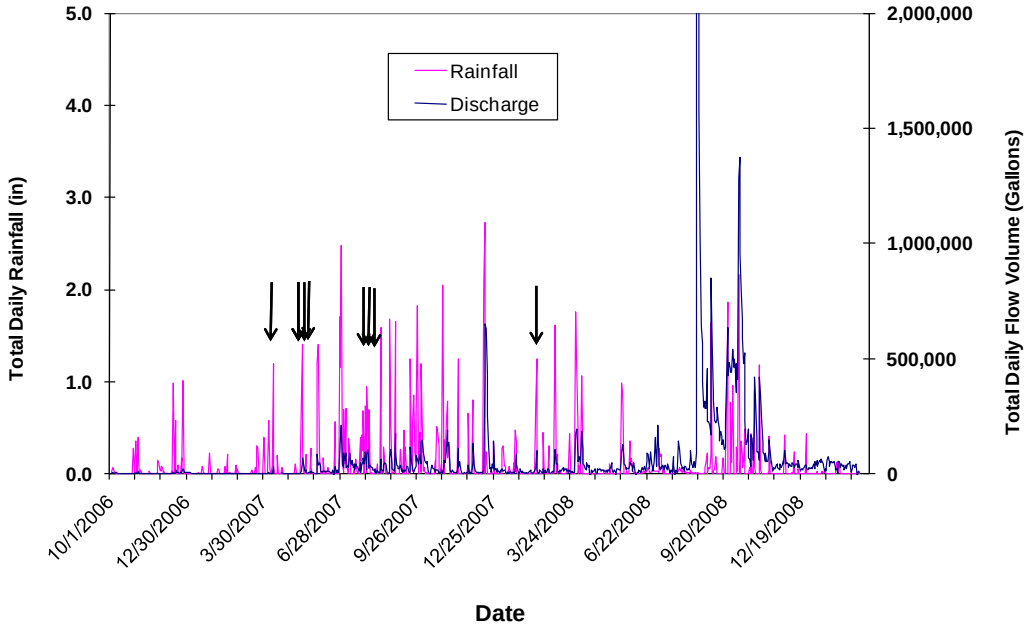

Figure 10 - Lincoln flow record showing monitored storm events

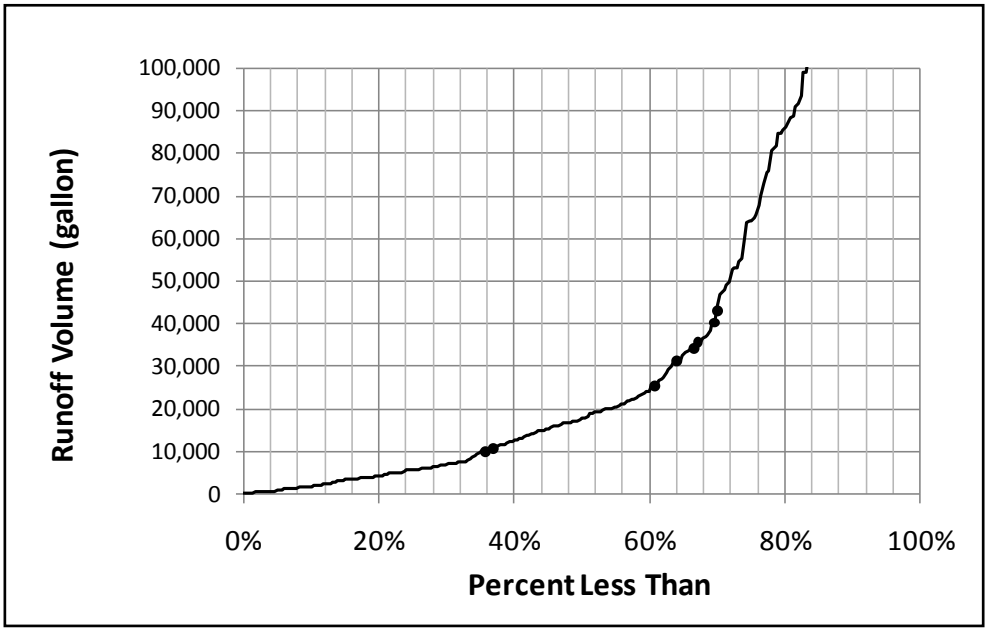

Figure 11 - Lincoln cumulative runoff distribution showing monitored storm events

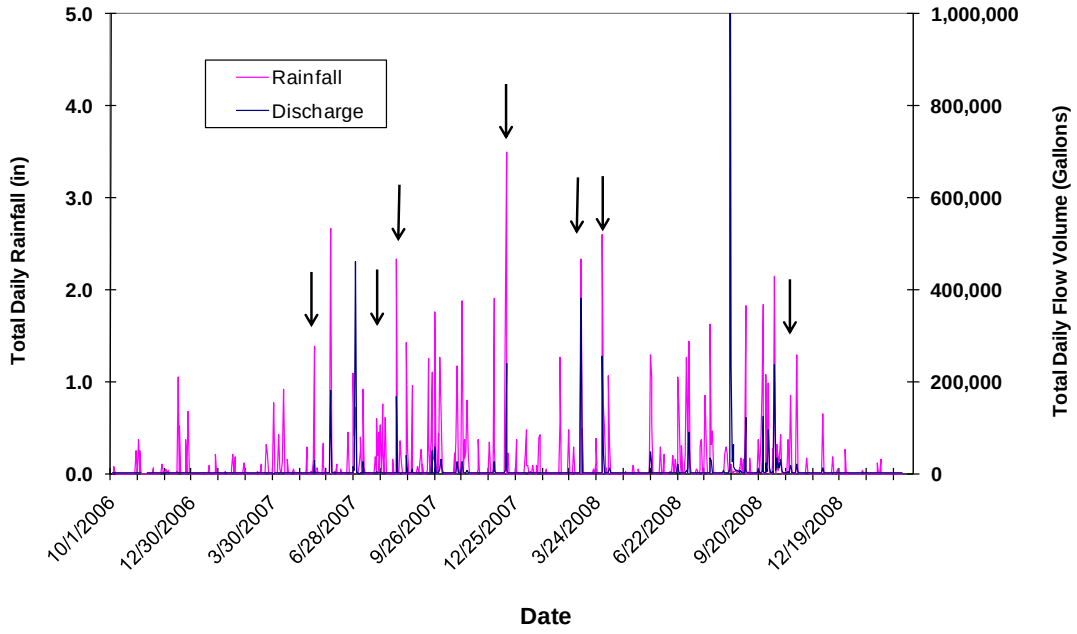

Figure 12 - Parkway flow record showing monitored storm events

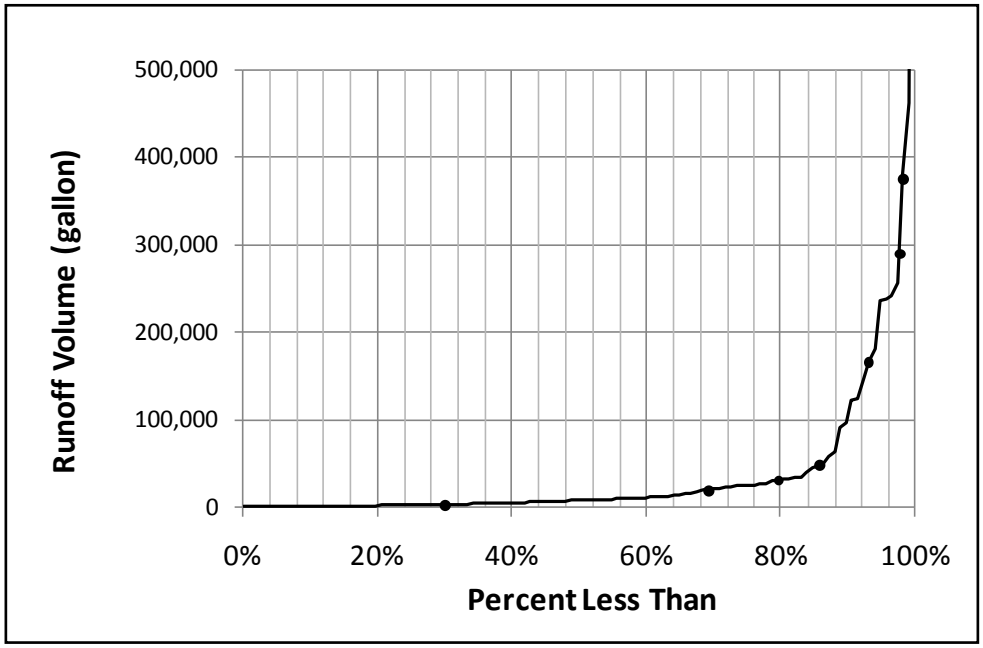

Figure 13 - Parkway cumulative runoff distribution showing monitored storm events

Pollutant Removal Summary

Event Mean Concentrations (Water Column)

Discussion in the section is limited to water column concentrations. Water column mass removals are discussed in the next section. Average EMC reduction performance of the four baffle boxes are summarized in Tables 9 through 12. An example regression of TSS discharge EMC to influent EMC is shown in Fig. 15 for the Rockledge baffle box (n=7). The correlation had an R^2 of 0.72. Average EMC reductions represent the average percent reduction in EMC based on the monitored storm events. The overall flow weighted mass removal efficiency (last column on Tables 9-12) accounts for the masses removed during the storm events. EMC performance of the four baffle boxes are compared in Table 14. Overall EMC reduction efficiency was moderate or negative for suspended solids, total nitrogen, and total phosphorus. EMCs were used for the water column mass calculations in the next section.

There was not a strong correlation between TN, TP, and fecal coliform effluent concentrations. Type 1 baffle boxes averaged a 46.9% increase between influent and effluent fecal coliform concentrations. Type 2 baffle boxes had mixed results with a 13.1% reduction at the Sarasota site and -249% increase in fecal coliform concentrations at the Rockledge site. See Table 13. Probable causes for fecal coliform growth in baffle boxes are the interevent anaerobic conditions discussed further in the Interevent Monitoring section.

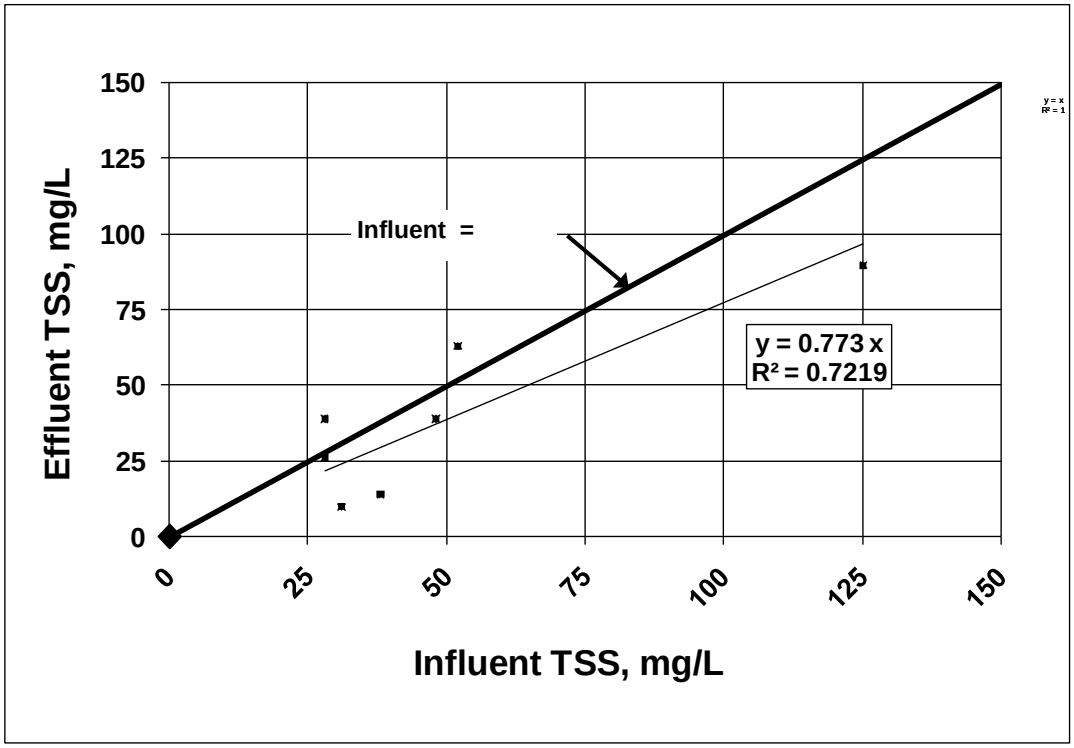

Figure 14 - Regression of Total Suspended Solids EMCs at Rockledge

Constituent	Average EMC_{inf}	Average EMC_{eff}	Average % EMC Reduction	EMC % Reduction Range		Average EMC Reduction, (EMC_{inf}-EMC_{eff})	Flow Weighted Mass Removal Efficiency, %
				Minimum	Maximum		
Total Suspended Solids, mg/L	49.0	43.2	8.5	-57	68	5.7	8.5
Total Nitrogen, mg/L	2.19	2.14	-11.3	-67	36	0.05	-4.3
Total Kjeldahl Nitrogen, mg/L	1.75	1.85	-17.3	-77	19	-0.10	-14.8
Organic Nitrogen, mg/L	1.56	1.62	-15.2	-71	24	-0.06	-14.4
NH_4^+-N, mg/L	0.19	0.22	-31.6	-157	72	-0.04	-18.5
NO_x-N, mg/L	0.45	0.30	10.2	-18	68	0.15	37.2
Total Phosphorus, mg/L	0.56	0.57	-8.2	-27	18	-0.01	-2.9
Organic Phosphorus, mg/L	0.23	0.23	-4.7	-27	17	-0.003	-1.6
PO_4-P, mg/L	0.33	0.34	-13.3	-57	18	-0.01	-4.0
Fecal Coliform, counts/100 ml	34,517	78,014	-249	-841	75	0.10000	-28.3
Cadmium, ug/L	0.00085	0.00059	9.4	0	47	-0.08200	36.3
Chromium, ug/L	0.00321	0.00293	9.5	-28	34	-0.02000	-0.7
Copper, ug/L	0.00773	0.00768	0.014	-34	56	0.00000	-7.1
Zinc, ug/L	0.07523	0.06315	5.1	-136	35	0.00000	14.6

Table 9 - Rockledge baffle box EMC performance

Constituent	Average EMC_{inf}	Average EMC_{eff}	Average % EMC Reduction	EMC % Reduction Range		Average EMC Reduction, (EMC_{inf}-EMC_{eff})	Flow Weighted Mass Removal Efficiency, %
				Minimum	Maximum		
Total Suspended Solids, mg/L	108.4	66.5	35.1	-65	89	41.9	49.7
Total Nitrogen, mg/L	3.62	2.42	30.6	14	52	1.20	41.2
Total Kjeldahl Nitrogen, mg/L	3.48	2.27	32.5	15	52	1.22	42.5
Organic Nitrogen, mg/L	3.26	2.12	31.8	15	52	1.14	42.8
NH_4^+-N, mg/L	0.22	0.15	20.7	-84	78	0.07	33.4
NO_x-N, mg/L	0.13	0.15	-95.3	-500	12	-0.02	-35.5
Total Phosphorus, mg/L	0.59	0.44	21.6	-3	59	0.15	39.5
Organic Phosphorus, mg/L	0.34	0.22	37.7	-18	98	0.123	43.8
PO_4-P, mg/L	0.25	0.22	7.6	-17	67	0.02	32.1
Fecal Coliform, counts/100 ml	74,250	40,250	13	-19	25	0.20900	57.3
Chromium, ug/L	0.00000	0.00000	0.0	-396	66	-0.04300	Cr
Copper, ug/L	0.00000	0.00000	0.000	-480	96	0.00500	Cu
Zinc, ug/L	0.00000	0.00000	0.0	-93	109	0.00000	Zn

Table 10 - Sarasota baffle box EMC performance

Constituent	Average EMC_{inf}	Average EMC_{eff}	Average % EMC Reduction	EMC % Reduction Range		Average EMC Reduction, (EMC_{inf}-EMC_{eff})	Flow Weighted Mass Removal Efficiency, %
				Minimum	Maximum		
Total Suspended Solids, mg/L	55.8	35.5	12.3	-61	78	20.3	41.3
Total Nitrogen, mg/L	1.00	0.97	-8.3	-45	65	0.03	11.1
Total Kjeldahl Nitrogen, mg/L	0.81	0.73	-5.5	-49	67	0.08	17.6
Organic Nitrogen, mg/L	0.72	0.65	-7.6	-49	65	0.07	16.0
NH_4^+-N, mg/L	0.10	0.08	8.3	-51	87	0.02	29.0
NO_x-N, mg/L	0.19	0.24	-50.7	-373	17	-0.05	-16.8
Total Phosphorus, mg/L	0.17	0.15	1.5	-20	58	0.02	12.8
Organic Phosphorus, mg/L	0.13	0.12	-1.1	-26	62	0.011	12.5
PO_4-P, mg/L	0.04	0.03	5.4	-44	36	0.00	14.0
Fecal Coliform, counts/100 ml	5,088	10,505	-89	-600	75	0.01690	-32.4
Cadmium, ug/L	0.00066	0.00063	9.4	0	49	-0.01100	6.9
Chromium, ug/L	0.00311	0.00308	-13.4	-75	73	0.00200	12.2
Copper, ug/L	0.01309	0.01168	7.612	-50	75	0.00000	24.0
Zinc, ug/L	0.13700	0.08084	18.7	-28	129	0.00000	38.9

Table 11 - Lincoln baffle box EMC performance

Constituent	Average EMC_{inf}	Average EMC_{eff}	Average % EMC Reduction	EMC % Reduction Range		Average EMC Reduction, (EMC_{inf}-EMC_{eff})	Flow Weighted Mass Removal Efficiency, %
				Minimum	Maximum		
Total Suspended Solids, mg/L	39.5	45.7	-38.5	-122	4	-6.2	-5.6
Total Nitrogen, mg/L	2.48	2.14	5.6	-53	52	0.35	14.1
Total Kjeldahl Nitrogen, mg/L	1.94	1.69	4.1	-48	55	0.25	11.6
Organic Nitrogen, mg/L	1.80	1.57	3.1	-61	56	0.24	11.9
NH_4^+-N, mg/L	0.14	0.12	-112.8	-882	65	0.02	5.7
NO_x-N, mg/L	0.54	0.45	2.7	-59	43	0.09	23.2
Total Phosphorus, mg/L	0.51	0.56	-15.3	-90	18	-0.05	-8.0
Organic Phosphorus, mg/L	0.12	0.15	-20.1	-65	51	-0.028	-49.5
PO_4-P, mg/L	0.39	0.41	-21.1	-181	9	-0.02	5.6
Fecal Coliform, counts/100 ml	37,736	61,419	-4	42	40	0.06000	-5.9
Cadmium, ug/L	0.00044	0.00041	-3.8	-100	28	-0.29000	24.4
Chromium, ug/L	0.00259	0.00246	5.5	-7	8	0.01200	5.5
Copper, ug/L	0.00793	0.00809	-19.538	-125	53	0.00000	5.3
Zinc, ug/L	0.04267	0.04583	-19.0	-233	3	0.00000	3.3

Table 12 - Parkway baffle box EMC Performance

Site	Baffle Box Type	Average TN Effluent Conc. (mg/L)	Average TP Effluent Conc. (mg/L)	Average Fecal Coliform Effluent Concentration (counts/100mL)
Parkway Blvd, Stuart	1	2.14	0.56	61,419
Lincoln Lane, Stuart	1	0.97	0.15	10,505
Average Type 1		**1.56**	**0.36**	**35,962**
Little John Lane, Rockledge	2	2.14	0.57	78,014
Oriole Drive, Sarasota	2	2.42	0.44	40,250
Average Type 2		**2.18**	**0.51**	**59,132**

Table 13 - Summary pollutant concentrations for all four baffle boxes

Site	Average EMC Removal Efficiency, %			
	Total suspended solids	Total nitrogen	Total phosphorus	Fecal coliforms
Little John Drive, Rockledge City	8.5	-11.3	-8.2	-249
Oriole Drive, Sarasota	35.1	30.6	21.6	13.1
Lincoln Avenue, Stuart City	12.3	-8.3	1.5	-89.5
SE Parkway Drive, Stuart City	-38.5	5.6	-15.3	-4.2
Average	4.4	4.2	-0.1	-82.4

Table 14 - Comparison of average baffle box EMC performance

Mass in Water Column, Bottom Chamber and Sieve Screen

The masses of constituents contained in the solids that accumulated in the bottom chambers and sieve screens are summarized in Tables 15 through 18 respectively for the Rockledge, Sarasota, Lincoln, and Parkway baffle boxes. Also shown is the calculated mass removed in the water column based on EMC monitoring discussed in the previous section. The ratio of the total accumulated solids mass to calculated water column mass scales the mass calculations.

In the material collected from the Rockledge sieve screen, the mass of non-dissolved solids, TN, and TP in the < 1 mm fraction were greater than or similar to the > 1 mm fraction. The solids in the < 1 mm fraction were a combination of sediment, and fine organic debris. The % organic matter in the Rockledge > 1 mm fraction were 73.3 and 11% for Cleanouts 1 and 2, and for the < 1 mm fraction were 30 and 51.6%.

For the Sarasota baffle box, the % organic matter in the > 1 mm fraction was 83% and for the < 1 mm fraction was 54.6%. For the Rockledge baffle box, accumulated solids are 26.8 times the water column EMC calculation, indicating that the autosampler is not representing all stormwater solids in the stormwater entering the baffle box. Negative values for nitrogen and phosphorus indicate that these parameters were actually being exported during storm events. Variable results for other baffles boxes reflect the flow and quality characteristics of runoff,

limited solids mass that accumulate within the baffle box, and uncertainties in sampling, analysis and quantification of solid materials that accumulate within the baffle box.

Constituent	**Bottom Chambers**	**Strainer Screen**		**Total Chamber + Screen**	**Water Column**	**Water Column Mass/ Accumated Solids Mass**
		> 1 mm	**< 1 mm**			
Non-dissolved Solids	3,479	1,012	1,378	5,869	110	0.019
Total Nitrogen	16.1	0.79	1.14	17.99	-1.91	-0.106
Total Phosphorus	1.1	0.64	1.05	2.80	-0.32	-0.116

Table 15 - Rockledge baffle box constituent mass (lb)

Constituent	**Bottom Chambers**	**Strainer Screen**		**Total Chamber + Screen**	**Water Column**	**Water Column Mass/ Accumated Solids Mass**
		> 1 mm	< 1 mm			
Non-dissolved Solids	1627	2491	3586	7704	7232	0.94
Total Nitrogen	9.0	1.64	21	32	200	6.3
Total Phosphorus	1.4	0.26	4.20	5.81	29	5.0

Table 16 - Sarasota baffle box constituent mass (lb)

Constituent	Bottom Chambers	Water Column	Water Column Mass/ Accumated Solids Mass
Non-dissolved Solids	3,014	3,521	1.17
Total Nitrogen	1.28	16.0	12.5
Total Phosphorus	1.05	3.28	3.13

Table 17 - Lincoln baffle box constituent mass (lb)

Constituent	Bottom Chambers	Water Column	Water Column Mass/ Accumated Solids Mass
Non-dissolved Solids	87	-195	-2.2
Total Nitrogen	0.030	19.1	628
Total Phosphorus	0.017	-1.95	-116

Table 18 - Parkway baffle box constituent mass (lb)

Average Parameter Mass Removals Over Monitoring Period	Type 1 Baffle Box	Type 2 Baffle Box
TN Removed From Water Column (lb)	35.1	198.1
TN Removed From Vault (lb)	1.31	25.1
TN Removed From Screens (lb)	NA	24.57
TP Removed From Water Column (lb)	1.33	28.68
TP Removed From Vault (lb)	1.07	2.5
TP Removed From Screens (lb)	NA	6.15

Table 19 - Summary mass removals by baffle box type

Equivalent Concentrations

Equivalent concentrations based on treatment volume and mass removals from the whole study period are shown in Table 20 for solids, nitrogen and phosphorus. ECs were higher for the Type 2 baffle box that included the sieve screen, but the higher EC in Type 2 baffle boxes also reflected the characteristics of the contributing watershed. The contributing watersheds to the Type 2 baffle boxes (Rockledge and Sarasota) had large macroscopic vegetation inputs and limited upstream opportunity for attenuation of pollutant mass. The Stuart sites had relatively limited organic matter input and possible upstream attenuation.

Site	Equivalent Concentration of Accumulated Solids (mg/L)		
	Total non-dissolved solids	Total nitrogen	Total phosphorus
Little John Drive, Rockledge City	183	0.69	0.071
Oriole Drive, Sarasota	37.9	0.098	0.015
Lincoln Avenue, Stuart City	20.2	0.009	0.007
SE Parkway Drive, Stuart City	1.8	0.00063	0.00035
Average	60.7	0.20	0.023

Table 20 - Equivalent concentrations of accumulated solids

Derived Efficiencies

Derived Efficiencies based on total mass removals are summarized in Table 1. DE for Type 1 baffle boxes averaged 0.5% for nitrogen and 2.3% for phosphorus. Type 2 baffle boxes averaged 19.1% DE for TN and 15.5% DE for TP. The higher removal efficiencies of Type 2 baffle boxes was attributed to the sieve screen capture of large floating and suspended materials in Type 2 boxes. Note that mass loadings from leaves were in drainage basins having 44% to 87% tree canopy coverage.

Site	Baffle Box Type	TN Mass Removal Efficiency (%)	TP Mass Removal Efficiency (%)	TN EMC Removal Efficiency (%)	TP EMC Removal Efficiency (%)
Parkway Blvd, Stuart	1	0.03	0.06	5.60	-15.30
Lincoln Lane, Stuart	1	1.00	4.50	-8.30	1.50
Average Type 1		**0.50**	**2.30**	**-1.35**	**-6.90**
Little John Lane, Rockledge	2	28.10	19.40	-11.30	-8.20
Oriole Drive, Sarasota	2	10.00	11.60	30.60	21.60
Average Type 2		**19.05**	**15.50**	**9.65**	**6.70**

Table 21 - Mass removal efficiencies of monitored baffle boxes

Polycylycic Aromatic Hydrocarbons

Polycyclic aromatic hydrocarbon (PAH) concentrations in accumulated solids are shown in Figures 16 through 19. PAH levels in bottom chamber and sieve screen solids are summarized in Tables 22 and 23 based respectively on total dry solids and solid organic matter. For the Rockledge baffle box, PAH levels were highest in the sieve screen captured material that was smaller than 1 mm, and both size fractions of the sieve screen material had higher PAH levels than the chamber sediment (Fig. 16). The PAH levels were below the exposure limits found in Chapter 62-777, Table II, F.A.C., with the exception of Benzo (A) pyrene, which was slightly higher than residential and industrial exposure limits.

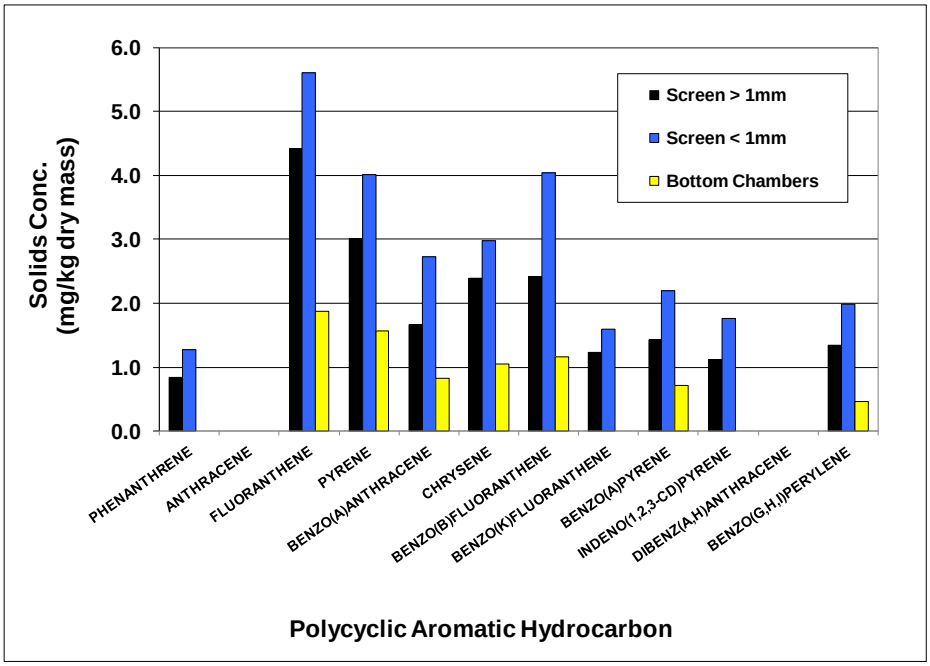

Figure 15 – Polycyclic aromatic hydrocarbons in Rockledge solids

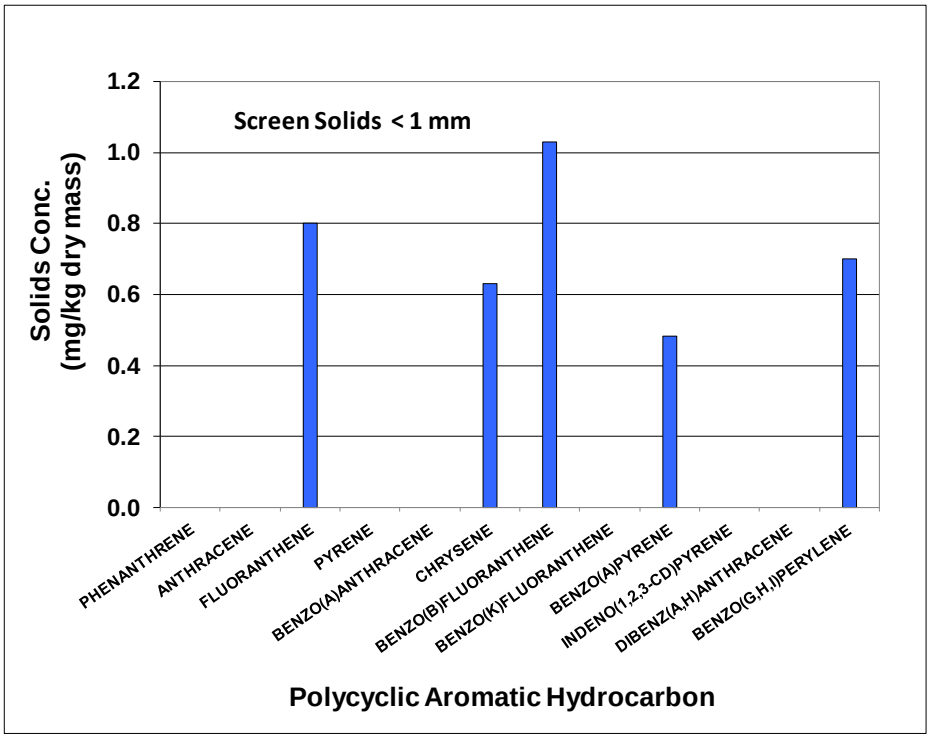

Figure 16 - Polycyclic aromatic hydrocarbons in Sarasota solids (bottom chamber PAH reported as less than detection limit)

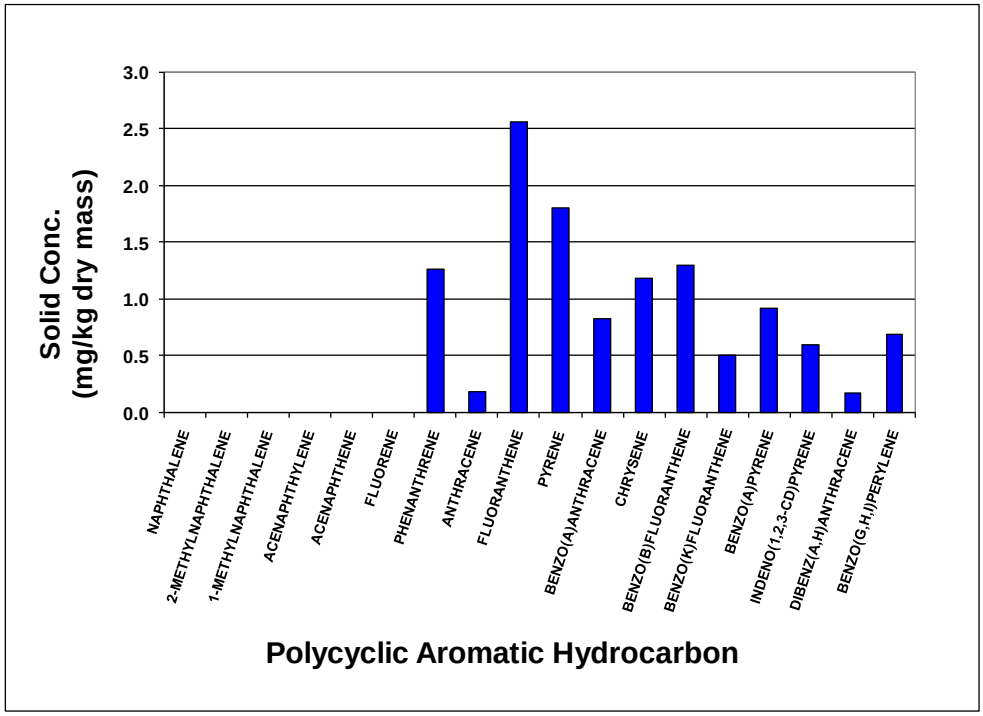

Figure 17 - Polycyclic aromatic hydrocarbons in Lincoln solids.

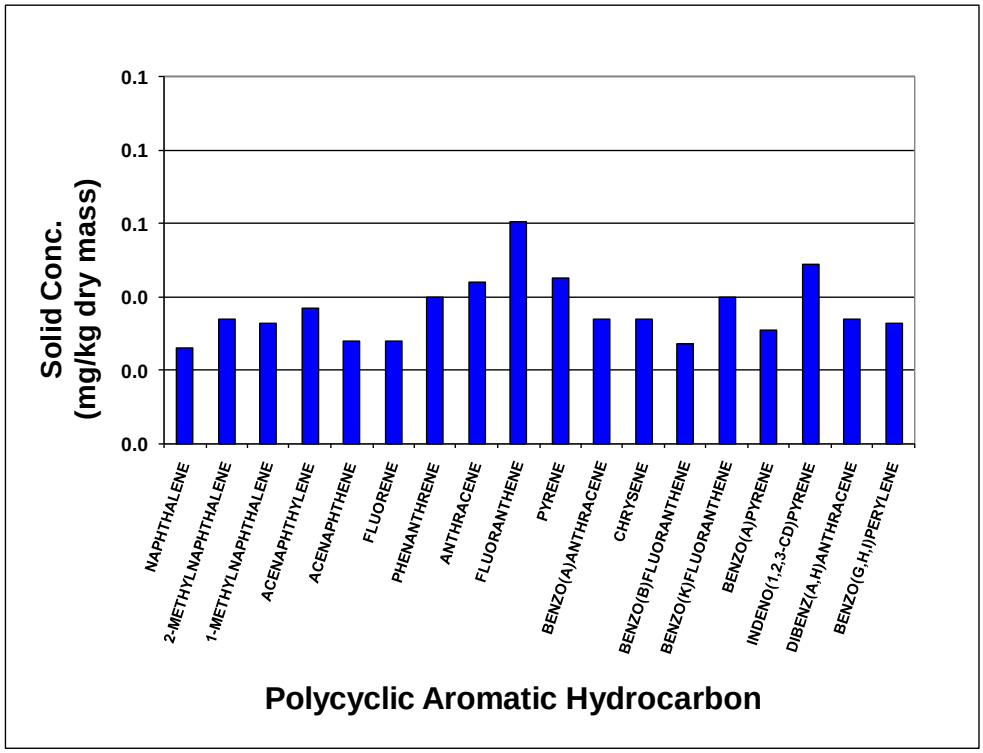

Figure 18 - Polycyclic aromatic hydrocarbons in Parkway solids.

Site	Total PAH, mg/kg solids		
	Bottom chamber	**Sieve screen > 1 mm**	**Sieve screen < 1 mm**
Little John Drive, Rockledge City First Cleanout	7.6	19.8	28.2
Little John Drive, Rockledge City Second Cleanout	1.7	52.9	70.0
Oriole Drive, Sarasota	ND	ND	3.02
Lincoln Avenue, Stuart City First Cleanout	12.0	-	-
Lincoln Avenue, Stuart City Second Cleanout	15.5	-	-
SE Parkway Drive, Stuart City	0.66	-	-

Table 22 - Total polycyclic aromatic hydrocarbons in accumulated solids

Site	Total PAH, mg/kg solid organic matter		
	Bottom chamber	**Sieve screen > 1 mm**	**Sieve screen < 1 mm**
Little John Drive, Rockledge City First Cleanout	60.7	27.1	94.0
Little John Drive, Rockledge City Second Cleanout	10.0	480.9	135.6
Oriole Drive, Sarasota	5.52	ND	ND
Lincoln Avenue, Stuart City First Cleanout	29.1	-	-
Lincoln Avenue, Stuart City Second Cleanout	266	-	-
SE Parkway Drive, Stuart City	6.3	-	-

Table 23 - Organic carbon normalized total polycyclic aromatic hydrocarbons levels

Heavy Metals

The reported levels of heavy metals in solids materials from sieve screen and bottom chamber are listed below.

Metal	Bottom Chamber Material, mg/kg dry weight		Sieve Screen Material, mg/kg dry weight			
	Cleanout 1	Cleanout 2	Cleanout 1		Cleanout 2	
			> 1 mm	< 1 mm	> 1 mm	< 1 mm
Cadmium	0.0404	2.10	0.643	0.471	0.73	0.70
Chromium	4.6	29	449	18.1	10	9.6
Copper	8.17	15.6	41.9	36	12	9.02
Nickel	1.59	14	5.9	4.59	4.8	6.57
Zinc	58.5	49.8	213	184	59.8	48.9
Mercury	0.0162	0.009	0.0783	0.0909	0.042	0.030

Table 24 - Metals concentration in Rockledge water column and solids

Metal	Bottom Chamber Material, mg/kg dry weight	Sieve Screen Material, mg/kg dry weight	
		> 1 mm	< 1 mm
Cadmium	0.55	0.14	0.68
Chromium	6.3	3.2	21.2
Copper	22.6	33.4	145
Nickel	2.9	1.6	8.5
Zinc	116	158	329
Mercury	-	0.028	0.142

Table 25 - Metals concentration in Sarasota water column and solids

Metal	Bottom Chamber Material, mg/kg dry weight	
	Cleanout 1	Cleanout 2
Cadmium	0.144	0.95
Chromium	5.5	13
Copper	19.4	8.4
Nickel	2.03	6.2
Zinc	290	108
Mercury	0.0158	0.0051

Table 26 - Metals concentration in Lincoln water column and solids

Metal	Bottom Chamber Material, mg/kg dry weight
	Cleanout 1
Cadmium	0.87
Chromium	12.0
Copper	2.8
Nickel	5.70
Zinc	44
Mercury	0.0060

Table 27 - Metals concentration in Parkway water column and solids

Interevent Monitoring

A primary mechanism by which baffle boxes remove stormwater pollutants is by sedimentation of stormwater solids that enter during storm events, sieving in Type 2 baffle boxes, and by retention of large macroscopic solids that may bypass the sieve screen and become trapped beneath it and ultimately sink to the bottom. In interevent periods, the organic materials in the solids that collect in bottom chambers can biologically degrade. Organic matter degradation could be expected to result in oxygen utilization with possible anoxic or anaerobic conditions and release of inorganic nutrients from the decomposing solids. Inorganic nutrients in the baffle box water column could be flushing into the receiving water during the initial period of the next storm event, or continuously flushed out if there was a baseflow during interevent periods. A limited scope sampling program was implemented as a first step in assessing interevent water quality within baffle boxes. Another scope task was to evaluate methods of collection and laboratory analyses for the materials that accumulate in the sieve screens of Type 2 baffle boxes. This material is a mixture of large size vegetation (leaves, plant parts), smaller organic materials, and inorganic particles. The estimate of the mass of pollutant removed in solids that accumulated within sieve screens depends on the sampling, sample preparation, and analytical methods used to characterize these materials. Interevent monitoring and sampling of the four baffle boxes was conducted on 3/25/2009. Monitoring included measurements of dissolved oxygen profiles, point measurements of temperature, pH, alkalinity and oxidation reduction potential, and collection of water column samples from a single point in the downstream baffle box chamber for laboratory analyses of suspended solids, BOD, COD, and nitrogen and phosphorus species. Water column samples were stored on ice and delivered to Pace Analytical Services, Inc. Tampa, FL on 3/26/2009.

Dissolved oxygen profiles are shown in Figure 20. Dissolved oxygen in the Rockledge and Sarasota baffle boxes was zero from 6 in. below the surface to the bottom. The Lincoln and Parkway baffle boxes had DO greater than 4 throughout their depth. For all baffle boxes, DO levels were constant through the vertical profile of the baffle boxes, with very limited depth stratification. Water column field parameter results for the interevent monitoring are summarized in Table 28. The water quality of the Type 2 baffle boxes (Rockledge and Sarasota) was distinct from the Type 1 baffle boxes (Lincoln and Parkway). Rockledge and Sarasota exhibited zero dissolved oxygen, highly negative oxidation reduction potentials, and higher chemical and biochemical oxygen demand, total nitrogen, and total phosphorus. Highly negative oxidation reduction potentials indicate that oxygen has been consumed and reducing conditions have been established by biochemical degradation of organic matter.

These observations are consistent with the hypothesis that organic matter captured in the Rockledge and Sarasota baffle boxes undergoes biological decomposition within the baffle box, leading to depletion of molecular oxygen, anaerobic redox conditions, and release of inorganic and soluble nutrient species into the overlying water column within the baffle box. The data in Figure 20 provide the first known documentation of patterns of DO depletion in Florida baffle boxes, due ostensibly to interevent biochemical processes. Organic matter decomposition was apparently more significant in the Rockledge and Sarasota baffle boxes, while the Lincoln and Parkway baffle box DO and ORP indicated a lower predominance of

organic matter decomposition. Several factors could contribute to the observed difference in the interevent water quality between the Type 2 and Type 1 baffle boxes. The most significant could be the characteristics of the contributing watershed, particularly in terms of the vegetative contributions from the watershed. Rockledge and Sarasota watersheds were generally highly vegetated while vegetation coverage in the Lincoln and Parkway watersheds was much lighter.

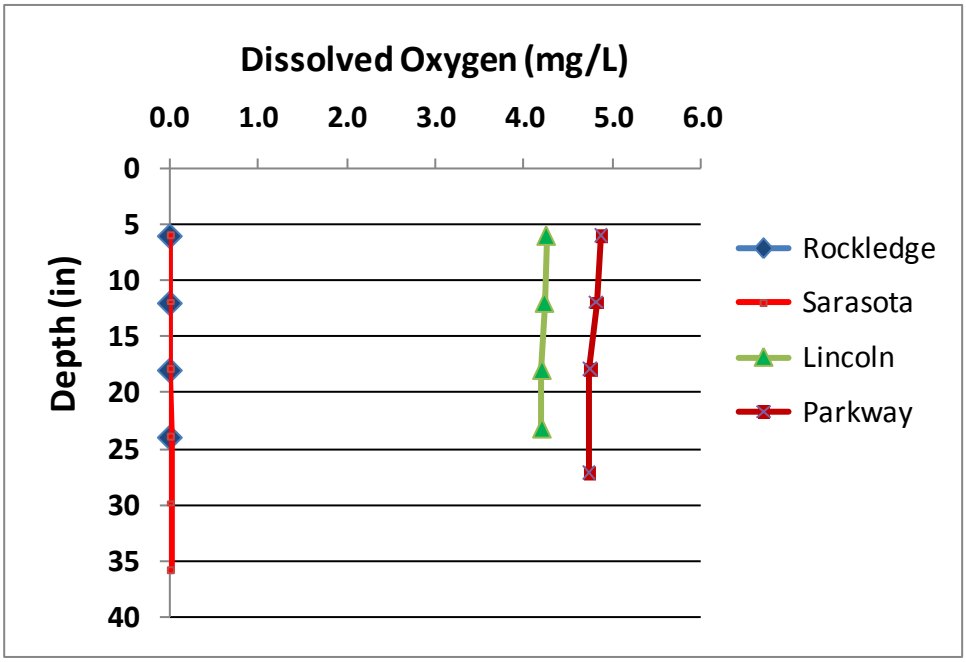

Figure 19 – Dissolved oxygen profiles in baffle boxes

The organic matter and vegetation that are subject to biological decomposition in a Type 2 baffle box can include materials that are retained in the sieve screen overlying the water column and materials that are not retained in the sieve screen that end up in the bottom chambers. Organic particulate material can enter the bottom chamber through bypass of the sieve screen or by transport of smaller organic matter through the sieve screen itself, particularly when the screen has been cleaned and a mat layer has not built up. Storm-transported vegetation that enters a Type 1 baffle box could pass directly through the baffle box into the receiving water, thus not contributing to water quality modifications in the baffle box itself. Another factor is the contribution of baseflow, which could act to continuously dilute soluble nutrients releases from decaying organic matter.

The second interevent monitoring task was to collect solid materials that accumulated in the sieve screens of the Type 2 baffle boxes (Rockledge and Sarasota) and to provide subsample splits to different laboratories for nitrogen and phosphorus analyses using wet chemistry and composting analytical methods. Three separate samples of solid material accumulated in the

Rockledge sieve screens were collected. Each sample was subdivided into three subsamples, which were shipped to three separate laboratories for analyses. The three laboratories that received solid material subsamples were A&L Great Lakes Laboratories, Inc. **(A&L)**, Ft. Wayne, IN (water and compost methods); Columbia Analytical Services, Inc. **(Columbia)**, Jacksonville, FL (water methods); and the Institute of Food and Agricultural Sciences Analytical Services Laboratories **(IFAS),** Environmental Water Quality Laboratory, University of Florida, Gainesville, FL (water methods).

A primary question investigated was the appropriateness of using water and wastewater test methods for the sediments and biosolids captured in the baffle box screens and chambers. An alternative to water based methods was to use analytical methods from the solid waste and agricultural industries. A&L used test procedures from Standard Methods for the Examination of Water and Wastewater and Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (Table 29). In addition, A&L used Test Methods for the Examination of Composting and Compost, as shown in Table 30. Columbia used Methods of Chemical Analysis of Water and Waste analytical procedures.

On the sample date the sieve screen in the Sarasota baffle box contained negligible quantities of solid material so sample collection was not possible. The Rockledge sieve screen materials contained highly visible macroscopic plant matter and also small organic and non-organic sediment material.

Parameter	Rockledge	Sarasota	Lincoln	Parkway
Time	1300	1700	0730	0930
Temperature, C	19.4	21.40	21.5	21.70
pH	6.8	7.0	7.1	7.5
Alkalinity, mg/L as $CaCO_3$	73	144	44	125
Dissolved Oxygen, mg/L	0	0	4.2	4.8
ORP, mV	-306	-357	117	138
Total suspended solids, mg/L	8.5	8.3	12	5.0
Carboneceous biochemical oxygen demand, five day, mg/L	10	28	2.0	2.0
Chemical oxygen demand, mg/L	91	120	31	22
Total nitrogen, mg/L	0.03	0.03	0.10	0.97
Total kjeldahl nitrogen, mg/L	2.2	3.9	0.95	0.65
Organic nitrogen, mg/L	-0.25	-1.20	-0.14	-0.02
Ammonia nitrogen, mg/L	.25	1.20	0.14	0.02
(Nitrate+nitrite) nitrogen, mg/L	0.03	0.03	0.10	0.97
Total phosphorus, mg/L	.89	1.40	0.13	0.57
Organic phosphorus, mg/L	0.29	0.30	0.10	0.07
Orthophosphorus, mg/L	0.60	1.1	0.029	0.50

Table 28 - Average water column values of field parameters

Results of analyses of the solid materials removed from the Rockledge sieve screen are presented in Tables 29 and 30. Analytical results were provided by two laboratories (A & D and Columbia). The third laboratory (IFAS) was in possession of the samples for over four months and finally reported that nutrient analyses could not be performed due to the unique characteristics of the sample matrix and technical issues associated with sample processing.

Note that A&L used a volatile solids method to estimate organic matter in the solids while Columbia used a total organic carbon analysis.

For the same reported analyte, the percent error between A&L and Columbia results was calculated as the absolute difference in the reported A&L and Columbia results divided by the absolute value of the A&L result, multiplied by 100 (Table 29). For wet chemistry analyses, the average percent error in the total solids analyses reported by the two laboratories was 0.73% (n=3) with a range of -13.2 to +7.4%. For total kjeldahl nitrogen, the average percent error was +14.5% (n=3) and with a range of -1.8 to +48.4%. TKN results in Columbia Subsample 1 was particularly lower than other TKN values and was likely due to difficulties in processing of the subsample prior to digestion. The average percent error for total phosphorus was +29.3% (n=3) and with a range of +26.3 to +33.8%. The variation in the two reported results was significant for both nitrogen and phosphorus. The different results could have a significant effect on calculations of nutrient removal in the material captured on sieve screens of Type 2 baffle boxes. Inspection of the water method results for TP (Table 29) indicates that results were relatively consistent among the three subsamples for both A&L (mean = 1500, range = 1481 to 1524) and Columbia (mean = 1060, range = 980 to 1100). Mean TP reported by A&L was 41% higher than Columbia, however, indicating that interlaboratory variability for these types of samples can be significant.

Sample	Parameter	A&L	Columbia	A&L Method	Columbia Method	Percent Error[1]
1	Total Solids, %	24.84	23	SM (20th) 2540G	160.3MOD	7.4
	Volatile Solids, %	89	-	SM (20th) 2540G	-	-
	Total Kjeldahl Nitrogen, mg/kg	16,659	8,600	SM-4500 N(org)B & NH	351.2	48.4
	Total Phosphorus, mg/kg	1,481	980	SW846-6010B	365.1	33.8
	Total organic carbon, mg/kg	-	10,000	-	9060M	-
2	Total Solids, %	19.42	22	SM (20th) 2540G	160.3MOD	-13.3
	Volatile Solids, %	90	-	SM (20th) 2540G	-	-
	Total Kjeldahl Nitrogen, mg/kg	17,482	18,000	SM-4500 N(org)B & NH	351.2	-3.0
	Total Phosphorus, mg/kg	1,524	1,100	SW846-6010B	365.1	27.8
	Total organic carbon, mg/kg	-	15,000	-	9060M	-
3	Total Solids, %	20.67	19	SM (20th) 2540G	160.3MOD	8.1
	Volatile Solids, %	89	-	SM (20th) 2540G	-	-
	Total Kjeldahl Nitrogen, mg/kg	18,670	19,000	SM-4500 N(org)B & NH	351.2	-1.8
	Total Phosphorus, mg/kg	1,495	1,100	SW846-6010B	365.1	26.4
	Total organic carbon, mg/kg	-	11,000	-	9060M	-

[1] (A&L Result - Columbia Result)/A&L Result x 100

Table 29 - Water analyses method results for Rockledge sieve screen subsamples

Table 30 shows analytical results that were obtained for the three subsamples using Test Methods for Evaluation of Compost and Composting (TMECC) analytical procedures performed by A& L Laboratories. TMECC results were compared to A&L water analyses results by making appropriate unit conversions to compare water analysis results with TMECC results. TMECC % Organic Matter was 72 to 95% (mean = 83%) of water analysis volatile solids. TMECC % Total Nitrogen was 93 to 118% (mean = 112%) of water analysis Total Kjeldahl Nitrogen. TMECC % Total Phosphorus was 97 to 109% (mean = 102%) of water analysis Total Phosphorus. These results suggest that TMECC composting analytical methods may be applicable to analyses of sieve screen material analyses. Further work is required to verify this result and gain confidence in the methods. The units for water column methods are expressed in solids concentrations of mg/kg, while solids methods units are given as "percent" of a parameter. The differences in units between the two methods explains why there are blank values in Table 29. The appropriateness of using calculations that combine water based analytical methods and units from the water column with solids based analytical methods and units for gross solids is uncertain.

Sample	Parameter	A&L	Method
1	Total Nitrogen, %	0.49	TMECC 04.02-D
	Total Phosphorus, %	0.04	TMECC 04.03-A
	Organic matter by LOI @ 550C, %	15.87	TMECC 05.07-A
2	Total Nitrogen, %	0.42	TMECC 04.02-D
	Total Phosphorus, %	0.03	TMECC 04.03-A
	Organic matter by LOI @ 550C, %	14.35	TMECC 05.07-A
3	Total Nitrogen, %	0.36	TMECC 04.02-D
	Total Phosphorus, %	0.03	TMECC 04.03-A
	Organic matter by LOI @ 550C, %	17.62	TMECC 05.07-A

Table 30 - Compost analyses method results for Rockledge sieve screen subsamples

Additional sampling was conducted on 10/5/2009. Three samples were collected of materials that had accumulated in the sieve screen of the Sarasota baffle box. Samples were shipped to the Columbia Analytical Laboratory for analyses of total solids, TKN, and TP. Results are shown in Table 31. Mean parameter values for TS, TKN, and TP were 26.7%, 11,767 mg/kg and 1006 mg/kg, respectively. The coefficient of variation for the three TS, TKN and TP samples were 0.13, 0.20 and 0.25, which indicates that the results were reasonable similar for the three samples. TKN from the Sarasota sieve screen material was generally about two

thirds that of the material collected from the Rockledge sieve screen, while Sarasota TP was to 67 to 95 % of the Rockledge TP depending on which laboratory data for Rockledge TP are used for comparison.

Sample	Parameter	Columbia	Columbia Method
1	Total Solids, %	30	160.3MOD
	Total Kjeldahl Nitrogen, mg/kg	12,000	351.2
	Total Phosphorus, mg/kg	860	365.1
2	Total Solids, %	27	160.3MOD
	Total Kjeldahl Nitrogen, mg/kg	9,300	351.2
	Total Phosphorus, mg/kg	860	365.1
3	Total Solids, %	23	160.3MOD
	Total Kjeldahl Nitrogen, mg/kg	14,000	351.2
	Total Phosphorus, mg/kg	1,300	365.1

Table 31 - Water analyses method results for Sarasota sieve screen samples

The results of the sieve screen analyses were mixed overall, with some consistent results and some inconsistencies. Five of the six Rockledge TKN were in reasonable agreement with each other; one TKN was significantly different from the two other TKN from the same lab and also significantly different from the subsamples supplied to the second lab. Rockledge TP values were in reasonable agreement for three samples for each lab, but consistently different between labs. Sample processing methodology may have had some influence on the discrepancy. Unfortunately, the third laboratory had reservations about a methodology and elected not to pursue analyses. Significant differences between Rockledge and Sarasota TKN and TP could reflect differences in the materials captured within the sieve screens and transformations of materials that occur in the captured material. For both nitrogen and phosphorus, reported nutrient values of sieve screen materials were subject to large differences for the small number of split samples analyzed. This result was not unexpected; it reaffirms the complexity of stormwater solids matrices and the need to focus more effort on them. A result which is encouraging is the relative agreement of total solids values for the two laboratories and the agreement of the composting methods for solids, nitrogen and phosphorus. The later suggests that composting or whole sample combustion methodologies, which do not employ sample digestion procedures, might be used in a standardized methodology for characterization of stormwater gross solids.

The scope of the interevent monitoring for sieve screen materials was highly limited due to budget restrictions. For analyses of solids collected in baffle boxes, and more generally for solid materials that are removed from stormwater management systems in Florida, a more comprehensive effort is needed to fully address the integrated tasks of collection, preparation, and analyses of solid materials captured in sieve screens and bottom sediments. The objective of this effort should be to develop a standardized protocol for sample collection, preservation, sample handling, and preparation, with the goal of providing protocols that can be applied with confidence by many entities and laboratories. The limited scope of the work provided valuable insight that can be used to formulate the needed methods development effort, which should as a minimum include a much greater number of split samples and analyses.

Conclusions and Recommendations

Total Maximum Daily Load (TMDL) mandates are challenging communities to reduce pollutants from stormwater runoff above and beyond standard permitting requirements associated with new development. The primary method used to reduce pollutants is by retrofitting older development with BMPs to clean runoff from those areas that do not have treatment practices. Retrofitting older areas with traditional treatment practices such as ponds is difficult due to lack of undeveloped land. The limited amount of undeveloped land in older developments turns stormwater practitioners to other tools in the BMP toolbox.

A common BMP used in ultra urban locations has been the baffle box. Early model (Type 1) baffle boxes were underground vault boxes with weirs set at the pipe inverts that trapped pollutants through the sedimentation unit process. The primary pollutants targeted by Type 1 baffle boxes were sediments, heavy metals, and PAHs associated with sediments that fell by gravity into water filled chambers. Removal of nutrient pollutants was minimal in Type 1 boxes.

Nutrient TMDLs are generally expressed as reductions of TN and TP. Nutrients can be found dissolved in the water column, bound to sediments, or part of the structural matrix of organic debris. The primary source of anthropogenic TN is dissolved fertilizer in the water column. A small amount of TN is associated with organic sediments. Organic debris leaches significant levels of TN and TP into water within 72 hours of submersion, England et.al. (2000). Approximately 30-40% of stormwater based TP is bound to sediment particles with the remainder being dissolved in the water column.

Development of TMDLs over the last few years has shown that nutrients were the primary pollutants causing environmental degradation in Florida. In response to the need to provide BMPs with nutrient removal capability, Suntree Technologies has developed proprietary Type 2 baffle boxes that added a horizontal screen above the water line of the vaults. This filtration unit process traps gross solids such as leaves, grass clippings, sediment, and trash during high flows when the hydraulic grade line rises above the screen level. After the water surface

recedes upon cessation of rain, gross solids trapped in the screens are kept above the water filled vaults with the design goal of letting the organic debris dry to prevent leaching of nutrients into the vaults. In addition, the screens enhance sedimentation of organic and inorganic sediments by physically blocking and filtering particles that are limited to velocity constraints of Stokes law for settling in Type 1 baffle box designs. The unit processes of sedimentation and filtration in a baffle box do not provide treatment of water column based TN and TP.

Sarasota County received funding from FDEP to monitor two Type 1 and two Type 2 baffle boxes to document pollutant removal effectiveness, primarily focused on the parameters TN and TP. The County contracted with GPI-SE to develop and manage the monitoring program. Field monitoring and data collection was subcontracted to Sutron Corporation for three baffle boxes in Rockledge and Stuart, and to PBSJ for one baffle box in Sarasota.

BMP site selection is critical and challenging for an effective field monitoring program. Pollutant loadings vary with every watershed and every rainfall event. A site must be chosen that allows the researcher to control as many of the pollutant loading variables as possible. A site must allow for proper setup and maintenance of equipment and collection of samples. Recommendations for site selection to give an affective baffle box monitoring program are:

- Minimize equipment requirements by using a baffle box with one influent pipe and one effluent pipe, each of which uses one autosampler. Additional pipes will require additional autosamplers and flow meters. More equipment leads to more malfunctions and lost storm sampling opportunities.
- There should be no base flows through the pipes or backwater or submersion from downstream waterbodies.
- There should be no bypass flows during large storms.
- BMPs in roadways should not be monitored. Technician vehicles will need to be parked next to the site for sampling and equipment maintenance. Access dictates a location outside of the pavement for safety reasons and to avoid lane closures.
- For rain gauges and solar panels to operate accurately there can be no tree coverage over the site.
- Theft proof enclosures should be used to house autosamplers, batteries, and solar panels. Adjacent property owners should be canvassed to ensure their cooperation with technicians accessing equipment at any hour.
- Testing for gross solids requires selecting a watershed with a high tree canopy coverage.
- When monitoring to compare multiple BMPs, each BMP watershed should be of similar land use in order to have similar pollutant loadings for each BMP.
- The interior of the BMPs should have sufficient clearance and access to enable a technician to install equipment and take samples.
- The sites should be within reasonable driving distance of technicians who will be making weekly visits to inspect and calibrate equipment. Automated sampling equipment that contacts technicians via modem or internet should be used to minimize

site visits for rainfalls that do not trip the autosampler. Many storms in Florida are below tripping criteria for rain intensity and duration.

- Roadways in the watershed should have curb and gutters. There should be no other upstream BMPs in the drainage basin, including roadside swales that will filter pollutants, especially gross solids, before they enter the BMP.

The monitoring approach that was developed and applied in this study measured water column pollutant removal performance based on flow composited water column autosamplers as well as masses that accumulated in the baffle box as gross solids. The monitoring approach demonstrated that the solids which accumulate in a baffle box must be included in an overall assessment of pollutant removal effectiveness of the baffle box. In some cases, mass removal in accumulated solids was significantly greater than water column mass removal. Use of a Derived Efficiency (DE) provided an index of pollutant reduction efficiency that incorporated accumulated solids and water column monitoring, resulting in a net positive retention of nitrogen and phosphorus. DE is a more useful indicator of baffle box treatment performance than water column EMC methods.

Field monitoring of four full scale baffle boxes resulted in the following findings:

- The average DE for non-dissolved stormwater solids removal was 43.6%, ranged from 2 to 83%, and was higher for Type 2 than Type 1 baffle boxes.
- The average DE for nitrogen removal was 9.8%, ranged from 0.03 to 28%, and was higher for Type 2 than Type 1 baffle boxes.
- The average DE for phosphorus removal was 8.9%, ranged from .06 to 19%, and was higher for Type 2 than Type 1 baffle boxes.
- Watershed characteristics and the presence of sieve screens significantly affected the differences in DE between the Type 2 and Type 1 baffle boxes.
- EMC removal efficiencies for total suspended solids averaged 8.5, 35.1, 12.3, and -38.5 %, respectively, for Rockledge, Sarasota, Lincoln, and Parkway baffle boxes.
- EMC removal efficiencies for total nitrogen averaged -11.3, 30.6, -8.3 and 5.6 %, respectively, for Rockledge, Sarasota, Lincoln, and Parkway baffle boxes.
- EMC removal efficiencies for total phosphorus averaged -8.2, 21.6, 1.5 and -15.3 %, respectively, for Rockledge, Sarasota, Lincoln, and Parkway baffle boxes.
- EMC removal efficiencies for fecal coliforms averaged -28, 13, -89 and -4.2 %, respectively, for Rockledge, Sarasota, Lincoln, and Parkway baffle boxes.
- Total polycyclic aromatic hydrocarbons ranged from non-detect to 15.5 mg/kg dry solids in materials collected from the baffle box bottom chambers.
- Total polycyclic aromatic hydrocarbons ranged from 20 to 53 mg/kg and 28 to 70 mg/kg in sieve screen materials greater and less than 1 mm, respectively.

When measured by the EMC method, Type 1 baffle boxes provided average reductions of 13.1%, -1.3%, -6.9%, and -46.8% for TSS, TN, TP, and fecal coliforms respectively. When using the DE methodology there were average mass removals of 19.9%, 0.5%, and 2.28% for Total non-dissolved solids, TN, and TP respectively.

Parameter	EMC	DE
TSS	13.1%	n/a
Total non-dissolved solids	n/a	19.9%
TN	-1.3%	0.5%
TP	-6.9%	2.28%
Fecal coliform	-46.8%	n/a

Table 32 – Type 1 baffle box removal efficiency using EMC and DE methodology

Type 2 baffle boxes showed higher pollutant removal effectiveness than Type 1 baffle boxes, with average EMC removals 21.8% for TSS, 9.6% for TN, 6.7% for TP, and -118% for fecal coliforms. Using DE calculations the Type 2 baffle boxes averaged 67.2% TSS removal, 19% TN removal, and 15.5% TP removal.

Parameter	EMC	DE
TSS	21.8%	67.2%
TN	9.6%	19%
TP	6.7%	15.5%
Fecal coliform	-118%	n/a

Table 33 - Type 2 baffle box removal efficiency using EMC and DE methodology

The screens in Type 2 baffle boxes trapped organic debris that would not be filtered in Type 1 baffle boxes. In watersheds that have a significant amount of tree canopy coverage, Type 2 baffle boxes give a greater nutrient removal than Type 1 baffle boxes due to the ability to filter leaves. Grass clippings were not a significant source of organic debris at the four sites monitored, indicating that public education programs to train residents not to place grass clippings in streets appear to be successful. During the monitoring program residents were observed several times blowing grass clippings into the yards. Oak leaf and pine needle accumulations were the significant source of organic debris in these watersheds.

At three of the four baffle box locations, fecal coliform concentrations were observed to be 44% - 61% higher in the effluent than the influent. Baffle boxes and other vault type BMPs that store interevent water act as septic tanks, promoting bacteria growth and low DO in the nutrient laden water. If fecal coliform is a parameter of concern for a waterbody, use of a baffle box or any water storing vault box can lead to increased fecal coliform counts to waterbodies.

Pollutant loadings vary widely among watersheds. Pollutants are present in the water column, street sediments, and in organic debris. In the Rockledge watershed, masses from leaves and sediment were 53.4 times greater than water column solids masses. In the Sarasota watershed sampling failures did not allow an accurate comparison of water column and gross solids masses. In watersheds with significant tree coverage, selection of BMPs that remove leaves from stormwater runoff can reduce nutrient discharges. Selection of BMPs that keep leaves in a dry state will provide greater nutrient removal than BMPs that store leaves in a wet condition.

While Type 2 baffle boxes kept leaves out of the water filled vault, the accumulation of leaves in the baskets filtered sediment creating a semi-pervious liner that stored water for several days, enabling leaves to leach nutrients slowly into the vault. In addition, the inherent design of screens that enabled high flow bypass for flood reduction allowed significant masses of leaves to fall from the screens into the vault boxes. It is worthwhile to mention that without the screens almost all leaves would wash through the box and end up in the receiving water where they would leach their entire nutrient mass.

The ability of leaves to leach nutrients even from a Type 2 baffle box demonstrated the importance of cleaning BMPs. The Sarasota baffle box screen was observed to completely fill with leaves after a small rain event. Even with the limited documentation of leaf accumulations from the Sarasota baffle box, 3586 pounds of leaves and sediment were collected. At the Rockledge baffle box 1,378 pounds of debris were collected from the screens. In watersheds with high leaf falls, it is recommended that baffle box screens be cleaned after every rain event in order to maximize nutrient reduction and prevent nutrient leaching from Type 2 baffle boxes.

Baffle box performance could be improved if there was a way to pump or bleed off chamber water between storms. The nutrient leaching and bacterial growth problem would be eliminated. The trade off for such an improvement would be moving from a passive design to an active mechanical design with maintenance and costs for pumps, electricity, and trained personnel. Passive low maintenance technology has been taken about as far as possible. Further advances in pollutant treatment will require mechanical and/or chemical technology similar to the wastewater industry.

Another recommendation related to the maintenance of the baffle box is to set up a clean-out schedule based on the observed needs of the individual baffle boxes, rather than a set quarterly or monthly clean out schedule. Some of the baskets in the study filled completely after a single rain event. Better tracking of the amount of organic material removed from the boxes can also aid in directing more maintenance efforts towards boxes that need frequent clean outs. This will aid in optimizing effectiveness.

Based upon the findings of this report, the following criteria are recommended for use of Type 2 baffle boxes:

1. When pollutants targeted for reduction in the watershed are nutrient based,
2. When fecal coliform reduction within the watershed is not a goal,
3. When the streets in the watershed have curb and gutters,
4. When there are no upstream BMPs such as ponds, exfiltration trenches, swales, inlet traps, and
5. When tree canopy coverage in the watershed exceeds 25%.

In watersheds with curb and gutter, an alternative to the use of Type 2 baffle boxes is installing inlet traps at all inlets. These BMPs act as a form of source control by reducing the leaching potential from trapped organic debris. Allowing organic debris to dry in an inlet trap can act as a unit process as nutrients are released to the atmosphere (England, 2008.) A limitation of inlet traps is that they trap little sediment and have much smaller debris trapping capacity than a Type 2 baffle box. However, they have much smaller drainage basins than a baffle box typically installed at the end of a watershed. Inlet traps will also require more frequent maintenance than a baffle box. Maintenance of a baffle box requires an expensive vacuum truck, while cleaning an inlet trap can be accomplished with by hand or a small truck mounted vacuum pump. Inlet traps cost about $1,000 while baffle boxes will cost approximately $50,000 for installation and road reconstruction. Inlet traps trade off lower upfront cost with higher maintenance frequency than a baffle box.

Another alternative BMP that could be used to collect gross solids is street sweeping. This form of source control removes 100% of the pollutants associated with the mass of material removed, does not require expensive engineering and construction, and is promoted by FDEP with special credits toward reducing TMDL load allocations. The City of Pensacola's Surface Water Quality Assessment (England, 2009) documents that the City's once a week street sweeping program collects an average of 5,734,865 pounds of sediment and gross solids. Based upon testing of street sweeping material by the City, the collected mass equates to

2,265 lb/yr of TN and 720 lb/yr of TP removed from the streets. Using an annual street sweeping program cost of $185,000, TN annual removal costs are $82/lb and TP removal costs are $257/lb.

To improve the quantification accuracy of stormwater pollutant reductions by BMPs that accumulate gross solids, a comparison of laboratory protocols and sampling procedures was made to improve the methodologies to quantify solids that accumulate in those BMPs and characterize their pollutant concentrations. Based on the limited number of samples and disparity of results, a recommendation to use solids based analytical methods for gross solids could not be made. This issue requires further investigation.

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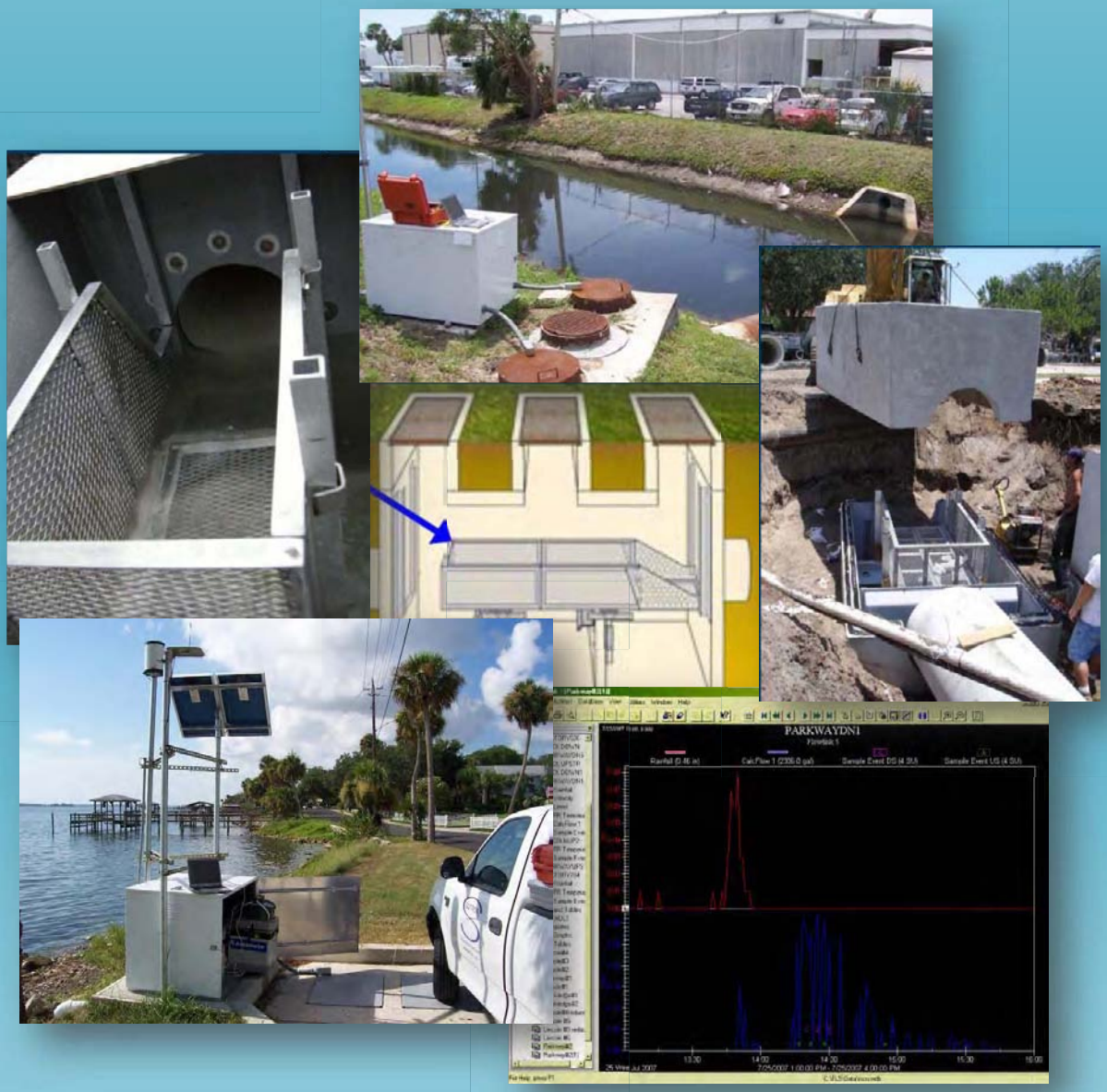
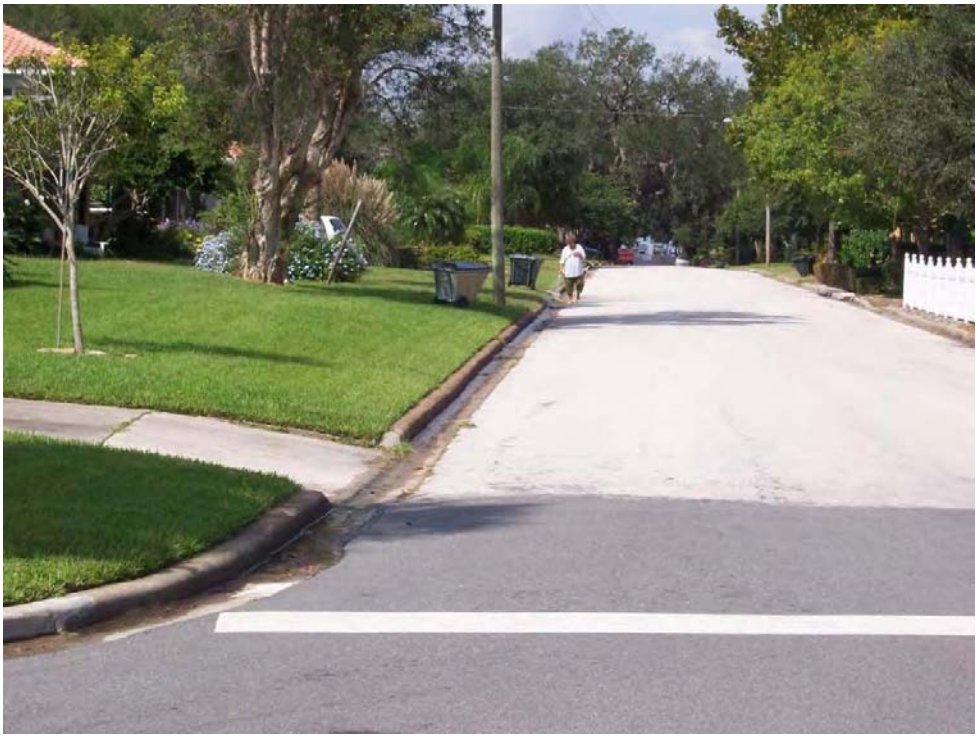
Appendix A



PROJECT PHOTOGRAPHS (2005 – 2009)

*additional photographs submitted on disc to FDEP and Sarasota County



Rockledge Site Looking West Up Little John Lane from Baffle Box

Rockledge Baffle Box Looking East

Rockledge Baffle Box Looking South from Little John Land

At Inlet to Baffle Box

Runoff Entering Inlet Upstream of Rockledge Baffle Box

Organic Debris in Rockledge Baffle Box Screen

Organic Debris in Screen and Vault of Rockledge Baffle Box

Organic Debris Entering Rockledge Baffle Box – Note that Organics Can Bypass Screen during High Flows

Taking Samples of Vault Material at Rockledge Baffle Box – Note Mixture Of Liquid, Sediment, and Organic Material

Organic Debris in Rockledge Baffle Box

Sampling Equipment at Rockledge Baffle Box

Velocity Meter Downstream of Rockledge Baffle Box

Sampling Organics and Sediment in Screen of Rockledge Baffle Box

Gross Solids Sampling Equipment

Collecting Screen Debris in Rockledge Baffle Box

Measuring Sediment Depth at Rockledge Baffle Box

Vault Sampling Equipment

Sampling Vault Material

Autosamplers at Rockledge Baffle Box

Gross Solids Removal Bypass Tester

Gross Solids Bypass Tester – Note Sediment Testing Holes

Stuart-Parkway Site – Looking East From Baffle Box Location

Stuart – Parkway - Grated Inlet Upstream of Baffle Box

Stuart – Parkway – Vertical Screen inside Baffle Box

Outfall of Stuart – Parkway Baffle Box

Autosampler at Stuart – Parkway Site

Autosampler at Sarasota Baffle Box

Rain Gauge at Sarasota Site

Spider Webs in Pipe Created Difficulty Calibrating Flowmeter

Land Use in Stuart – Lincoln Basin

Lake Discharge Upstream of Stuart – Lincoln Site Caused Base Flows in Baffle Box

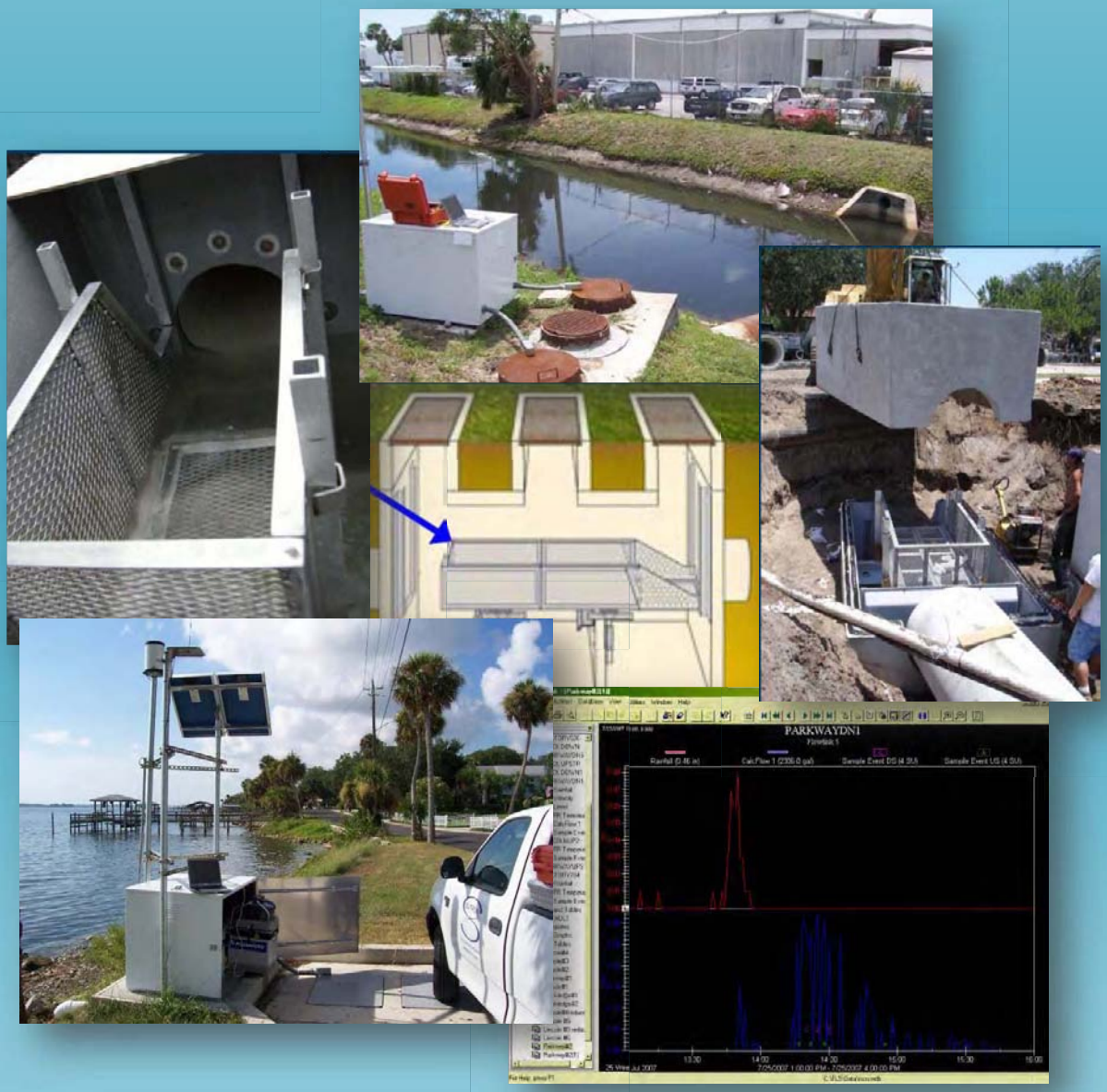
Stuart – Lincoln Site Was In Parking Lot Adjacent to This Building

Stuart – Lincoln Site

Oriole box- Filled with wet leaves

Oriole box- Another view, filled with wet leaves

Appendix B



Jupiter Environmental Laboratories, Inc.
150 S. Old Dixie Highway
Jupiter, FL 33458
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Fax: (561)575-4118

SAMPLE SUMMARY

LOG# 617356
Project ID: Sarasota Baffle Box

Lab ID	Sample ID	Matrix	Date Collected	Date Received
617356001	In 1	Aqueous Liquid	11/16/2006 10:00	11/17/2006 11:30
617356002	Out 2	Aqueous Liquid	11/16/2006 10:00	11/17/2006 11:30
617356003	Blank	Aqueous Liquid	11/16/2006 10:00	11/17/2006 11:30

FDOH# E86546

CERTIFICATE OF ANALYSIS

Jupiter Environmental Laboratories, Inc.
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ANALYTICAL RESULTS

LOG# 617356
Project ID: Sarasota Baffle Box

Lab ID: **617356001** Date Received: 11/17/2006 Matrix: Aqueous Liquid
Sample ID: **In 1** Date Collected: 11/16/2006

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	By	Analyzed	By	Qual	CAS
Analysis Desc: Ammonia by EPA 350.1 (W)			Analytical Method: EPA 350.1								
Ammonia	0.97	mg/L	0.020		1			12/01/06	SS		7664-41-7
Analysis Desc: Phosphorus by EPA 365.1 [REF] (W)			Analytical Method: EPA 365.1								
Phosphorus	0.50	mg/L	0.020		1			11/22/06	ESC	1	7723-14-0
Analysis Desc: EPA 200.8 Metals (W)			Analytical Method: EPA 200.8 (Total)								
Chromium	0.00091	mg/L	0.00050	0.000038	1	11/17/06	ZS	11/17/06	ZS		7440-47-3
Copper	0.0051	mg/L	0.00040	0.00020	1	11/17/06	ZS	11/17/06	ZS		7440-50-8
Zinc	0.025	mg/L	0.0019	0.00095	1	11/17/06	ZS	11/17/06	ZS		7440-66-6
Cadmium	U	mg/L	0.00050	0.000091	1	11/17/06	ZS	11/17/06	ZS		7440-43-9

FDOH# E86546

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

LOG# 617356
Project ID: Sarasota Baffle Box

Lab ID: **617356002** Date Received: 11/17/2006 Matrix: Aqueous Liquid
Sample ID: **Out 2** Date Collected: 11/16/2006

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	By	Analyzed	By	Qual	CAS
Analysis Desc: Ammonia by EPA 350.1 (W)			Analytical Method: EPA 350.1								
Ammonia	0.43	mg/L	0.0020		1			12/01/06	SS		7664-41-7
Analysis Desc: Phosphorus by EPA 365.1 [REF] (W)			Analytical Method: EPA 365.1								
Phosphorus	0.48	mg/L	0.020		1			11/22/06	ESC	1	7723-14-0
Analysis Desc: EPA 200.8 Metals (W)			Analytical Method: EPA 200.8 (Total)								
Chromium	0.00098	mg/L	0.00050	0.000038	1	11/17/06	ZS	11/17/06	ZS		7440-47-3
Copper	0.0045	mg/L	0.00040	0.00020	1	11/17/06	ZS	11/17/06	ZS		7440-50-8
Zinc	0.028	mg/L	0.0019	0.00095	1	11/17/06	ZS	11/17/06	ZS		7440-66-6
Cadmium	U	mg/L	0.00050	0.000091	1	11/17/06	ZS	11/17/06	ZS		7440-43-9

FDOH# E86546

CERTIFICATE OF ANALYSIS

Jupiter Environmental Laboratories, Inc.
150 S. Old Dixie Highway
Jupiter, FL 33458
Phone: (561)575-0030
Fax: (561)575-4118

ANALYTICAL RESULTS

LOG# 617356
Project ID: Sarasota Baffle Box

Lab ID: **617356003** Date Received: 11/17/2006 Matrix: Aqueous Liquid
Sample ID: **Blank** Date Collected: 11/16/2006

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	By	Analyzed	By	Qual	CAS
Analysis Desc: Ammonia by EPA 350.1 (W)			Analytical Method: EPA 350.1								
Ammonia	0.15	mg/L	0.020		1			12/01/06	SS		7664-41-7
Analysis Desc: Phosphorus by EPA 365.1 [REF] (W)			Analytical Method: EPA 365.1								
Phosphorus	0.022	mg/L	0.020		1			11/22/06	ESC	1	7723-14-0
Analysis Desc: EPA 200.8 Metals (W)			Analytical Method: EPA 200.8 (Total)								
Chromium	U	mg/L	0.00050	0.000038	1	11/17/06	ZS	11/17/06	ZS		7440-47-3
Copper	U	mg/L	0.00040	0.00020	1	11/17/06	ZS	11/17/06	ZS		7440-50-8
Zinc	U	mg/L	0.0019	0.00095	1	11/17/06	ZS	11/17/06	ZS		7440-66-6
Cadmium	U	mg/L	0.00050	0.000091	1	11/17/06	ZS	11/17/06	ZS		7440-43-9

FDOH# E86546

CERTIFICATE OF ANALYSIS

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Jupiter, FL 33458
Phone: (561)575-0030
Fax: (561)575-4118

ANALYTICAL RESULTS QUALIFIERS

LOG# 617356
Project ID: Sarasota Baffle Box

PARAMETER QUALIFIERS

[1] Report Limit = MDL

SUBCONTRACTOR NELAC CERTIFICATION

617356 ESC = E87487

FDOH# E86546

CERTIFICATE OF ANALYSIS

Client Project: Sarasota Baffle Box
Lab Project: N0611311
Report Date: 12/04/06

Sanders Laboratories, Inc.
Environmental Testing Services

Laboratory Results

Jupiter Environmental Laboratories, Inc.
220 Venus Street
Suite 16
Jupiter, FL 33458

Lab ID	Sample Description	Sample Source	Received Date/Time	Sample Date/Time
N0611311-01	In 1 grab	Ground Water	11/16/06 12:55	11/16/06 10:00

Analysis	Method	Results	Qual	Detection Limit	Units	AnalysisDate/Time	Analyst	Cert ID
Fecal Coliform, MF	9222D	TNTC	Z	1	CFU/100ml	11/16/06 13:45	RG	E84380
Nitrate+Nitrite-N	353.2	0.49		0.01	mg/L as N	11/17/06 11:57	SJ	E84380
Nitrogen, Total Kjeldahl	351.2	3.02		0.10	mg/L as N	11/29/06 17:07	SJ	E84380
Ortho-phosphate-P	365.2	0.436		0.015	mg/L as P	11/17/06 11:30	BY	E84380
Total Suspended Solids	160.2	15.0		0.6	mg/L	11/17/06 9:30	BB	E84380

Lab ID	Sample Description	Sample Source	Received Date/Time	Sample Date/Time
N0611311-02	Out 2 grab	Ground Water	11/16/06 12:55	11/16/06 10:00

Analysis	Method	Results	Qual	Detection Limit	Units	AnalysisDate/Time	Analyst	Cert ID
Fecal Coliform, MF	9222D	TNTC	Z	1	CFU/100ml	11/16/06 13:45	RG	E84380
Nitrate+Nitrite-N	353.2	0.47		0.01	mg/L as N	11/17/06 11:57	SJ	E84380
Nitrogen, Total Kjeldahl	351.2	2.13		0.10	mg/L as N	11/29/06 17:07	SJ	E84380
Ortho-phosphate-P	365.2	0.479		0.015	mg/L as P	11/17/06 11:30	BY	E84380
Total Suspended Solids	160.2	24.8		0.6	mg/L	11/17/06 9:30	BB	E84380

Lab ID	Sample Description	Sample Source	Received Date/Time	Sample Date/Time
N0611311-03	Blank grab	DI Water	11/16/06 12:55	11/16/06 10:00

Analysis	Method	Results	Qual	Detection Limit	Units	AnalysisDate/Time	Analyst	Cert ID
Fecal Coliform, MF	9222D	1	U	1	CFU/100ml	11/16/06 13:45	RG	E84380

Client Project: Sarasota Baffle Box
Lab Project: N0611311
Report Date: 12/04/06

Laboratory Results

Lab ID	Sample Description	Sample Source	Received Date/Time	Sample Date/Time
N0611311-03	Blank grab	DI Water	11/16/06 12:55	11/16/06 10:00

Analysis	Method	Results	Qual	Detection Limit	Units	AnalysisDate/Time	Analyst	Cert ID
Nitrate+Nitrite-N	353.2	0.01	U	0.01	mg/L as N	11/17/06 11:57	SJ	E84380
Nitrogen, Total Kjeldahl	351.2	0.16	I	0.10	mg/L as N	11/29/06 17:07	SJ	E84380
Ortho-phosphate-P	365.2	0.015	U	0.015	mg/L as P	11/17/06 11:30	BY	E84380
Total Suspended Solids	160.2	0.6	U	0.6	mg/L	11/17/06 9:30	BB	E84380

Approved by:

Comments:

Kathrine Bartkiewicz/Lab Supervisor
Andrew Konopacki/Lab Supervisor

Test Results meet all the requirements of the NELAC standards.

BAR CODE

Chain of Custody Record

LAB USE ONLY

N061131 11/24/c

J.E.L. Log # _____

P.O. # _____

Quote# _____

Jupiter Environmental Laboratories / Sanders

Company Name: PBS & J

Address: 2803 Fruitville Rd., Suite 130

City: Sarasota State: FL Zip: 34237

Sampling Site Address: Baffle Box

Attn:

Fax/Email: jkwinter@pbsj.com

Project Name: Sarasota Baffle Box

Project #

Sampler Name/Signature: Jeffery K. Winter / [signature]

LAB ANALYSIS

#	Sample Label (Client ID)	Collected Date	Collected Time	Matrix Code*	# of Cont	Preservation Code	TKN (B)	TSS (A)	Fec. Coli (D)	OP (C)	NO3 (B)	Field Filtered (Y/N)	Integrity OK (Y/N)	Comments
1	In 1	06/11/16	10:00	GW	5		✓	✓	✓	✓	✓	N		-01 A/B/C/D
2	Out 2	06/11/16	10:00	GW	5		✓	✓	✓	✓	✓	N		-02 A/B/C/D
3	Blank	06/11/16	10:00	DI	5		✓	✓	✓	✓	✓	N		-03 A/B/C/D
4														
5														
6														
7														
8														
9														
0														

Matrix Codes*

S Soil/Solid Sediment
GW Ground Water
WW Waste Water
DW Drinking Water
SW Surface Water
SL Sludge
O Other (Please Specify)

Pres Codes**

A- none
B- HNO_3
C- H_2SO_4
D- NaOH
E- HCl
I- Ice
O- Other
M- MeOH

Relinquished by	Date	Time	Received by	Date	Time
[signature] (813) 713-4681	06/11/16	10:00	T. Bright	06/14/06	1255

QA/QC level with report

None ___1___2___3___ See price guide for applicable fees

T.A.T. Request FDEP___

___ Standard SFWMD___

___ Rush Date Required_____

Temp Control: 5.4 °C

Page_____of_____

Jupiter Environmental Laboratories, Inc.
150 Old Dixie Highway, Jupiter, FL 33458
(561) 575-0030 • Fax (561) 575-4118 • clientservices@jupiterlabs.com

C.O.C.# 27883

ORIGINAL

204

JUPITER ENVIRONMENTAL LABORATORIES, INC.
150 S. OLD DIXIE HWY JUPITER, FL 33458
PH: 561-575-0030 FX: 561-575-4118 E: CLIENTSERVICES@JUPITERLABS.COM

Date	Client	Project
7-7-06		Baffle Box Sarasota

Contact	PH / Fx	Email
Tara		

Contact	PH / Fx	Email
MONDAY MORNING	M T W R F AM PM	Drop; UPS; FXgrnd; 8am; 10am; other

Date required
Shipping address
MUST have client PHONE

PBSJ-sub to Sanders BAFFLE BOX (B)

Client or PM complete this section

Method / ANALYTE Total or dissolved	# of Stations or wells:	Water Soil pre-preserved			
TKN / NOx / NH4	5	W	S	Y	N
OP		W	S	Y	N
TSS		W	S	Y	N
Fec. Colif.		W	S	Y	N
		W	S	Y	N
		W	S	Y	N
		W	S	Y	N
		W	S	Y	N
		W	S	Y	N
		W	S	Y	N
		W	S	Y	N
		W	S	Y	N
		W	S	Y	N
		W	S	Y	N
		W	S	Y	N
		W	S	Y	N
		W	S	Y	N

CIRCLE TYPE of PROJECT:
FDEP SFWMD SJRWMD

Lab MUST complete this section for client /always copy and include with COC

# of containers per site or well	VOL	P / G	Total or Dissolved		Preservation (circle)
5	125mL	P	{T}	{F}	C (S) N H B Z
5	125mL	P	{T}	{F}	(C) S N H B Z
5	PL	P	{T}	{F}	(C) S N H B Z
5	Bac-T	P	{T}	{F}	C S N H B Z
			{T}	{F}	C S N H B Z
			{T}	{F}	C S N H B Z
			{T}	{F}	C S N H B Z
			{T}	{F}	C S N H B Z
			{T}	{F}	C S N H B Z
			{T}	{F}	C S N H B Z
			{T}	{F}	C S N H B Z
			{T}	{F}	C S N H B Z
			{T}	{F}	C S N H B Z
			{T}	{F}	C S N H B Z
			{T}	{F}	C S N H B Z
			{T}	{F}	C S N H B Z
			{T}	{F}	C S N H B Z

{F} = Filtered (dissolved) {T} = Totals (unfiltered)
C = Chilled on ice to < 4C S = sulfuric acid (H_2SO_4)
N = nitric acid (HNO_3) H = hydrochloric acid (HCl)
B = sodium hydroxide (NaOH) Z = zinc acetate + NaOH

Other containers/stock: Glass Plastic

Circle/fill in: Filters: Size: Bubble wrap COC Coolers: sm med lg Custody seals/ other

Equipment Rental:

NOTES: BAG as individual wells. Number bags ~~as~~: with Attached LABELS

Order prepared By: TMB **Kit prepared by:**

CLIENT: [illegible] NELAC [illegible] requirements of us

All samples MUST be returned on ice regardless of acid preservation method except Hg by EPA method 245.1

Return a copy of this document with your samples and COC

You can request Kits and download a blank Chain of Custody in PDF or Excel on our website: www.jupiterlabs.com

Lab Project Summary

Lab Project #: N0702192

Client: Jupiter Environmental Laboratories, Inc.
150 S. Old Dixie Hwy

Total Pages: 7

Jupiter FL 33458

Phone: 1-561-575-0030
Fax: 1-561-575-4118
E-mail: edd@gate.net
Client Project Name: Sarasota Baffle Box
Laboratory Contact: Tami Bright

QUALIFIER DEFINITIONS

B: Results based upon colony counts outside the acceptable range.
I: The reported value is between the laboratory MDL and the laboratory PQL.
J3: The reported value failed to meet the established quality control criteria.
J4: The sample matrix interfered with the ability to make an accurate determination.
J5: The data is questionable because of improper lab or field protocols.
K: Off scale low, actual value is less than the value given.
L: Off scale high, actual value is known to be greater than the value given.
Q: Sample held beyond acceptable holding time.
U: The compound was analyzed for, but not detected.
V: The analyte was detected in both the sample and the associated method blank.
Y: The sample was unpreserved or improperly preserved.
Z: Too many colonies present (TNTC).
* Exceeds acceptable drinking water limits, per FAC 62-550.
** This is an uncertified result.
HACH results are uncertified.

A statement of estimated uncertainty of results is available upon request.

Laboratory report shall not be reproduced except in full, without the written approval of Sanders Laboratories.

Sanders Laboratories follows DEP standard operating procedures for field sampling.

Laboratory PQL's are set at 4 times the laboratory MDL's.

Reports are archived for a minimum of 5 years. Copies of reports which are less than 1 year old are available for a fee of $25.00 per report. Reports older than 1 year are available for a fee of $50.00 per report. Copies will be provided within 1 week of the time of the request.

BENCHMARK
EnviroAnalytical Inc.

NELAC Certification # E84167

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

Submission Number : 7100855

P B S & J
5300 West Cypress Street, Suite 200
Tampa, Fl 33607-1712

Robert D. Woithe

Project Name : ORIOLE DR. BAFFLE BOX PROJECT
Date Received : 10/29/2007
Time Received : 1210

Submission Number 7100855

Sample Number: 1
Sample Date: 10/29/2007
Sample Time: 0816
Sample Description: S B B In
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	79.8	MG/L	0.570	2.280	160.2	10/29/2007	15:00	CB
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	10/31/2007	13:05	JG
CHROMIUM	4.8 I	UG/L	2	8	200.7	10/31/2007	13:05	JG
ZINC	68.1	UG/L	1.4	5.6	200.7	10/31/2007	13:05	JG
COPPER	12.3	UG/L	0.346	1.384	220.2	11/05/2007	12:00	JG
AMMONIA NITROGEN	0.090	MG/L	0.005	0.020	350.2	11/06/2007	10:30	YW
TOTAL KJELDAHL NITROGEN	1.80	MG/L	0.05	0.20	351.2	11/05/2007	15:00	TN
TOTAL NITROGEN	1.87	MG/L	0.05	0.20	353+351	11/05/2007	15:00	TN/CB
NITRATE+NITRITE	0.072	MG/L	0.004	0.016	353.2	10/30/2007	09:45	CB
ORTHO PHOSPHORUS	0.118	MG/L	0.002	0.008	365.3	10/30/2007	17:29	YW
TOTAL PHOSPHORUS	0.458	MG/L	0.002	0.008	365.3	10/31/2007	09:30	YW
FECAL COLIFORM	73000	#/100 ML	1000	4000	SM9222D	10/29/2007	12:25	JLJ

Submission Number 7100855

Sample Number: 2
Sample Date: 10/29/2007
Sample Time: 0816
Sample Description: S B B Out
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst

BENCHMARK
EnviroAnalytical Inc.

NELAC Certification # E84167

TOTAL SUSPENDED SOLIDS	1.80 I	MG/L	0.570	2.280	160.2	10/29/2007	15:00	CB
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	10/31/2007	13:05	JG
CHROMIUM	2 U	UG/L	2	8	200.7	10/31/2007	13:05	JG
ZINC	7.50	UG/L	1.4	5.6	200.7	10/31/2007	13:05	JG
COPPER	2.50	UG/L	0.346	1.384	220.2	11/05/2007	12:00	JG
AMMONIA NITROGEN	0.049	MG/L	0.005	0.020	350.2	11/06/2007	10:30	YW
TOTAL KJELDAHL NITROGEN	0.415	MG/L	0.05	0.20	351.2	11/05/2007	15:00	TN
TOTAL NITROGEN	0.495	MG/L	0.05	0.20	353+351	11/05/2007	15:00	TN/CB
NITRATE+NITRITE	0.080	MG/L	0.004	0.016	353.2	10/30/2007	09:45	CB
ORTHO PHOSPHORUS	0.116	MG/L	0.002	0.008	365.3	10/30/2007	17:29	YW
TOTAL PHOSPHORUS	0.206	MG/L	0.002	0.008	365.3	10/31/2007	09:30	YW
FECAL COLIFORM	71000	#/100 ML	1000	4000	SM9222D	10/29/2007	12:25	JLJ

Radica Koutselas 11/08/2007

Dale D. Dixon / Laboratory Director — Date

Radica Koutselas / QC Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.

B = Results based upon colony counts outside the acceptable range.

H = Value based on field kit determination. Results may not be accurate.

I = Reported value is between the laboratory MDL and the PQL.

J1 = Est. value surrogate recovery limits exceeded.

J2 = Est. value. No quality control criteria exists for component.

J3 = Est. value quality control criteria for precision or accuracy not met.

J4 = Est. value. Sample matrix interference suspected.

J5 = Est. value. Data questionable due to improper lab or field protocols

K = Off-scale low. Value is known to be < the value reported.

L = Off-scale high. Value is known to be > the value reported

N = Presumptive evidence of presence of material.

O = Sampled, but analysis lost or not performed.

Q = Sample held beyond accepted hold time.

T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.

U = Analyte analyzed but not detected at the value indicated.

V = Analyte detected in sample and method blank.

Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.

! = Data deviate from historically established concentration ranges.

? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the Presence or absence of the analyte cannot be determined from the data.

* = Not reported due to interference.

NOTES:

PQL = 4xMDL.

MBAS calculated as LAS; molecular weight = 348.

X = Value exceed MCL.

For questions and comments regarding these results, please contact Katharine Dixon at (941) 723-9986

1711 12th Street East * Palmetto, FL 34221 * Phone (941) 723-9986 * Fax (941) 723-6061

Benchmark EnviroAnalytical, Inc.
1711 Twelfth Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax
BenchmarkEA@earthlink.net

Client: **PBS & J**
5300 West Cypress Street, Suite 200
Tampa, FL 33607-1712
(813) 281-8357 Attn: Robert D. Woithe, Ph.D.
(813) 287-1745 (fax)
RDWoithe@pbsj.com

Chain of Custody Form: Oriole Dr. Baffle Box Project
Method of discharge: SW

Laboratory Submission #: 7100855

Station ID	Sample Type	TSS (A)	TKN NO_3-NO_2 NH_3 T-N T-P (B)	o-P (~~Field~~ Lab-Filtered) (C)	Cd Cr Zn (*200.7*) Cu (*220.2*) (D)	Fecal Coliform (MF) (F)	Laboratory Sample #
		1 x ~~2~~ Quart Plastic	1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 100mL Sterile Plastic	
		Plain	1:4 H_2SO_4 pH<2	Plain	1:4 HNO_3 pH<2	NaThio	
SBB IN	Comp	08:16 10/29/07					1
SBB out	Comp	08:16					2
	Comp						
	Comp						
	Comp						

[1] Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
2. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
3. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

Laboratory Sample Acceptability
Temperature:
pH<2: ☑

1	Collector:	Date: 7/10/29	Time: 12:05	Received By:		
2	Relinquished by;	Date:	Time:	Received By:	Date:	Time:
3	Relinquished by:	Date:	Time:	Received By:	Date:	Time:
4	Relinquished by:	Date:	Time:	Received By:	Date: 10-29-07	Time: 1210

3053

BENCHMARK
EnviroAnalytical Inc.

NELAC Certification # E84167

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

Submission Number : 7120575

P B S & J
5300 West Cypress Street, Suite 200
Tampa, Fl 33607-1712

Robert Woithe

Project Name : ORIOLE DR. BAFFLE BOX PROJECT
Date Received : 12/21/2007
Time Received : 1120

Submission Number 7120575

Sample Number: 1
Sample Date: 12/21/2007
Sample Time: 0600
Sample Description: Baffle - In
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	12/27/2007	11:26	JG
CHROMIUM	2.50 I	UG/L	2	8	200.7	12/27/2007	11:26	JG
ZINC	105	UG/L	1.4	5.6	200.7	12/27/2007	11:26	JG
TOTAL KJELDAHL NITROGEN	1.95	MG/L	0.05	0.20	351.2	12/24/2007	12:00	TN
TOTAL NITROGEN	2.31	MG/L	0.05	0.20	353+351	12/24/2007	12:00	TN/CB
NITRATE+NITRITE	0.355	MG/L	0.004	0.016	353.2	12/21/2007	16:00	CB
ORTHO PHOSPHORUS	0.456	MG/L	0.002	0.008	365.3	12/21/2007	16:16	YW
TOTAL PHOSPHORUS	1.02	MG/L	0.002	0.008	365.3	12/26/2007	09:30	YW
TOTAL SUSPENDED SOLIDS	138	MG/L	0.570	2.280	SM2540D	12/21/2007	15:00	BH
COPPER	29.3	UG/L	0.346	1.384	SM3113B	12/28/2007	10:58	JG
AMMONIA NITROGEN	0.383	MG/L	0.005	0.020	SM4500-NH3C	12/28/2007	11:00	YW
FECAL COLIFORM	200000 L	#/100 ML	1000	4000	SM9222D	12/21/2007	13:30	CUS

Submission Number 7120575

Sample Number: 2
Sample Date: 12/21/2007
Sample Time: 0600
Sample Description: Baffle - Out
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst

BENCHMARK
EnviroAnalytical Inc.

NELAC Certification # E84167

CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	12/27/2007	11:26	JG
CHROMIUM	2 U	UG/L	2	8	200.7	12/27/2007	11:26	JG
ZINC	75.0	UG/L	1.4	5.6	200.7	12/27/2007	11:26	JG
TOTAL KJELDAHL NITROGEN	1.66	MG/L	0.05	0.20	351.2	12/24/2007	12:00	TN
TOTAL NITROGEN	1.97	MG/L	0.05	0.20	353+351	12/24/2007	12:00	TN/CB
NITRATE+NITRITE	0.312	MG/L	0.004	0.016	353.2	12/21/2007	16:00	CB
ORTHO PHOSPHORUS	0.346	MG/L	0.002	0.008	365.3	12/21/2007	16:16	YW
TOTAL PHOSPHORUS	0.777	MG/L	0.002	0.008	365.3	12/26/2007	09:30	YW
TOTAL SUSPENDED SOLIDS	81.6	MG/L	1	4	SM2540G	12/21/2007	15:00	BH
COPPER	17.0	UG/L	0.346	1.384	SM3113B	12/28/2007	10:58	JG
AMMONIA NITROGEN	0.326	MG/L	0.005	0.020	SM4500-NH3C	12/28/2007	11:00	YW
FECAL COLIFORM	63000	#/100 ML	1000	4000	SM9222D	12/21/2007	13:30	CUS

Dale Dixon 12/31/2007

Dale D. Dixon / Laboratory Director — Date

Radica Koutselas / QC Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.

B = Results based upon colony counts outside the acceptable range.

H = Value based on field kit determination. Results may not be accurate.

I = Reported value is between the laboratory MDL and the PQL.

J1 = Est. value surrogate recovery limits exceeded.

J2 = Est. value. No quality control criteria exists for component.

J3 = Est. value quality control criteria for precision or accuracy not met.

J4 = Est. value. Sample matrix interference suspected.

J5 = Est. value. Data questionable due to improper lab or field protocols

K = Off-scale low. Value is known to be < the value reported.

L = Off-scale high. Value is known to be > the value reported

N = Presumptive evidence of presence of material.

O = Sampled, but analysis lost or not performed.

Q = Sample held beyond accepted hold time.

T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.

U = Analyte analyzed but not detected at the value indicated.

V = Analyte detected in sample and method blank.

Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.

I = Data deviate from historically established concentration ranges.

? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the Presence or absence of the analyte cannot be determined from the data.

* = Not reported due to interference.

NOTES:

PQL = 4xMDL.

MBAS calculated as LAS; molecular weight = 348.

X = Value exceed MCL.

For questions and comments regarding these results, please contact Katharine Dixon at (941) 723-9986

1711 12th Street East * Palmetto, FL 34221 * Phone (941) 723-9986 * Fax (941) 723-6061

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Client: **PBS & J**
5300 West Cypress Street, Suite 200
Tampa, FL 33607-1712
(813) 281-8357 Attn: Robert D. Woithe, Ph.D.
(813) 287-1745 (fax)
RDWoithe@pbsj.com

Chain of Custody Form: Oriole Dr. Baffle Box Project
Method of discharge: SW

Laboratory Submission #: 7120575

Station ID	Sample Type	TSS (A)	TKN NO_3-NO_2 NH_3 T-N T-P (B)	o-P (Lab-Filtered) (C)	Cd Cr Zn (*200.7*) Cu (*220.2*) (D)	Fecal Coliform (MF) (F)	Laboratory Sample #
		1 x 2 Quart Plastic	1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 100mL Sterile Plastic	
		Plain	1:4 H_2SO_4 pH<2 □	Plain	1:4 HNO_3 pH<2 □	NaThio	
BAFFLE-IN	Comp	21-DEC-07 06:00					1
BAFFLE-OUT	Comp	21-DEC-07 06:00					2
	Comp						
	Comp						
	Comp						

Instructions:
1. Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).
2. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
3. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

Laboratory Sample Acceptability
Temperature:
pH<2: ☒

1	Collector: ALLAN WILLIS	Date: 21-DEC-07	Time: 11:20	Received By:		
2	Relinquished by;	Date:	Time:	Received By:	Date:	Time:
3	Relinquished by:	Date:	Time:	Received By:	Date:	Time:
4	Relinquished by:	Date:	Time:	Received By: Aspen M Hall	Date: 12/26/07	Time: 1120

3683

BENCHMARK
EnviroAnalytical Inc.

NELAC Certification # E84167

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

Submission Number : 8060648

P B S & J
5300 West Cypress Street, Suite 200
Tampa, Fl 33607-1712

Robert Woithe

Project Name : ORIOLE DR. BAFFLE BOX PROJECT
Date Received : 06/23/2008
Time Received : 0815

Submission Number 8060648

Sample Number: 1
Sample Date: 06/21/2008
Sample Time: 1436
Sample Description: BAFFLE - IN
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	06/24/2008	11:22	JG
CHROMIUM	3.20 I	UG/L	2	8	200.7	06/24/2008	11:22	JG
ZINC	63.1	UG/L	1.4	5.6	200.7	06/24/2008	11:22	JG
TOTAL KJELDAHL NITROGEN	2.49	MG/L	0.05	0.20	351.2	06/26/2008	10:00	MWC
TOTAL NITROGEN	2.62	MG/L	0.05	0.20	353+351	06/26/2008	10:00	MWC/CB
NITRATE+NITRITE	0.125	MG/L	0.004	0.016	353.2	06/25/2008	10:30	CB
ORTHO PHOSPHORUS	0.198	MG/L	0.002	0.008	365.3	06/23/2008	10:02	YW
TOTAL PHOSPHORUS	0.283	MG/L	0.002	0.008	365.3	06/27/2008	09:00	YW
TOTAL SUSPENDED SOLIDS	130	MG/L	0.570	2.280	SM2540D	06/23/2008	14:45	SJB
COPPER	12.4	UG/L	0.346	1.384	SM3113B	06/25/2008	09:47	JG
AMMONIA NITROGEN	0.019 I	MG/L	0.005	0.020	SM4500-NH3C	06/25/2008	11:00	YW

Submission Number 8060648

Sample Number: 2
Sample Date: 06/21/2008
Sample Time: 1436
Sample Description: BAFFLE - OUT
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	06/24/2008	11:22	JG

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CHROMIUM	3.10 I	UG/L	2	8	200.7	06/24/2008	11:22	JG
ZINC	56.0	UG/L	1.4	5.6	200.7	06/24/2008	11:22	JG
TOTAL KJELDAHL NITROGEN	2.08	MG/L	0.05	0.20	351.2	06/26/2008	10:00	MWC
TOTAL NITROGEN	2.22	MG/L	0.05	0.20	353+351	06/26/2008	10:00	MWC/CB
NITRATE+NITRITE	0.135	MG/L	0.004	0.016	353.2	06/25/2008	10:30	CB
ORTHO PHOSPHORUS	0.222	MG/L	0.002	0.008	365.3	06/23/2008	10:02	YW
TOTAL PHOSPHORUS	0.286	MG/L	0.002	0.008	365.3	06/27/2008	09:00	YW
TOTAL SUSPENDED SOLIDS	51.2	MG/L	0.570	2.280	SM2540D	06/23/2008	14:45	SJB
COPPER	11.3	UG/L	0.346	1.384	SM3113B	06/25/2008	09:47	JG
AMMONIA NITROGEN	0.035	MG/L	0.005	0.020	SM4500-NH3C	06/25/2008	11:00	YW

Radica Koutselas 06/30/2008

Dale D. Dixon / Laboratory Director — Date

Radica Koutselas / QC Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.

B = Results based upon colony counts outside the acceptable range.

H = Value based on field kit determination. Results may not be accurate.

I = Reported value is between the laboratory MDL and the PQL.

J1 = Est. value surrogate recovery limits exceeded.

J2 = Est. value. No quality control criteria exists for component.

J3 = Est. value quality control criteria for precision or accuracy not met.

J4 = Est. value. Sample matrix interference suspected.

J5 = Est. value. Data questionable due to improper lab or field protocols

K = Off-scale low. Value is known to be < the value reported.

L = Off-scale high. Value is known to be > the value reported

N = Presumptive evidence of presence of material.

O = Sampled, but analysis lost or not performed.

Q = Sample held beyond accepted hold time.

T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.

U = Analyte analyzed but not detected at the value indicated.

V = Analyte detected in sample and method blank.

Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.

Z = Too many colonies were present (TNTC). The numeric value represents the filtration volume.

! = Data deviate from historically established concentration ranges.

? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the Presence or absence of the analyte cannot be determined from the data.

* = Not reported due to interference.

NOTES:

PQL = 4xMDL.

MBAS calculated as LAS; molecular weight = 348.

X = Value exceed MCL.

For questions and comments regarding these results, please contact Katharine Dixon at (941) 723-9986

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Client:

PBS & J
5300 West Cypress Street, Suite 200
Tampa, FL 33607-1712
(813) 281-8357 Attn: Robert D. Woithe, Ph.D.
(813) 287-1745 (fax)
RDWoithe@pbsj.com

Chain of Custody Form: Oriole Dr. Baffle Box Project
Method of discharge: SW

Laboratory Submission #: 80604 P

Station ID	Sample Type	TSS (A)	TKN NO_3-NO_2 NH_3 T-N T-P (B)	o-P (~~Field~~-Filtered) Lab (C)	Cd Cr Zn (200.7) Cu ~~(220.2)~~ (SM 3113B) (D)	Fecal Coliform (MF) (F)	Laboratory Sample #
		1 x 2 Quart Plastic	1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 100mL Sterile Plastic	
		Plain	1:4 H_2SO_4 pH<2 ☐	Plain	1:4 HNO_3 pH<2 ☐	NaThio	
BAFFLE - IN	Comp	21-JUNE-08 14:30					1
BAFFLE-OUT	Comp	21-JUNE-08 14:30					2
	Comp						
	Comp						
	Comp						

[1] Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis.
The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
2. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
3. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

Laboratory Sample Acceptability
Temperature:
pH<2: ☐

1	Collector: ALLAN WILLIS	Date: 22-JUNE-08	Time: 11:00	Received By: [signature]	6/22/08	11:00
2	Relinquished by; R. Woithe	Date: 6/23/08	Time: 8:15	Received By:	Date:	Time:
3	Relinquished by:	Date:	Time:	Received By:	Date:	Time:
4	Relinquished by:	Date:	Time:	Received By: [signature]	Date: 6-26-08	Time: [illegible]

BENCHMARK
EnviroAnalytical Inc.

NELAC Certification # E84167

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

Submission Number : 8070190

P B S & J
5300 West Cypress Street, Suite 200
Tampa, Fl 33607-1712

Robert Woithe

Project Name : ORIOLE DR. BAFFLE BOX PROJECT
Date Received : 07/07/2008
Time Received : 1545

Submission Number 8070190

Sample Number: 1
Sample Date: 07/06/2008
Sample Time: 1804
Sample Description: In
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	07/08/2008	13:07	JG
CHROMIUM	8.40	UG/L	2	8	200.7	07/08/2008	13:07	JG
ZINC	146	UG/L	1.4	5.6	200.7	07/08/2008	13:07	JG
TOTAL KJELDAHL NITROGEN	6.69	MG/L	0.05	0.20	351.2	07/09/2008	10:00	MWC
TOTAL NITROGEN	6.79	MG/L	0.05	0.20	353+351	07/09/2008	10:00	MWC/CB
NITRATE+NITRITE	0.104	MG/L	0.004	0.016	353.2	07/08/2008	10:30	CB
ORTHO PHOSPHORUS	0.220	MG/L	0.002	0.008	365.3	07/08/2008	16:48	YW
TOTAL PHOSPHORUS	0.995	MG/L	0.002	0.008	365.3	07/10/2008	09:15	YW
TOTAL SUSPENDED SOLIDS	238	MG/L	0.570	2.280	SM2540D	07/11/2008	08:30	CB
COPPER	30.6	UG/L	0.346	1.384	SM3113B	07/09/2008	13:31	JG
AMMONIA NITROGEN	0.037	MG/L	0.005	0.020	SM4500-NH3C	07/10/2008	11:30	YW

Submission Number 8070190

Sample Number: 2
Sample Date: 07/06/2008
Sample Time: 1804
Sample Description: Out
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	07/08/2008	13:07	JG

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CHROMIUM	5.20 I	UG/L	2	8	200.7	07/08/2008	13:07	JG
ZINC	92.1	UG/L	1.4	5.6	200.7	07/08/2008	13:07	JG
TOTAL KJELDAHL NITROGEN	3.95	MG/L	0.05	0.20	351.2	07/09/2008	10:00	MWC
TOTAL NITROGEN	4.07	MG/L	0.05	0.20	353+351	07/09/2008	10:00	MWC/CB
NITRATE+NITRITE	0.118	MG/L	0.004	0.016	353.2	07/08/2008	10:30	CB
ORTHO PHOSPHORUS	0.258	MG/L	0.002	0.008	365.3	07/08/2008	16:48	YW
TOTAL PHOSPHORUS	0.714	MG/L	0.002	0.008	365.3	07/10/2008	09:15	YW
TOTAL SUSPENDED SOLIDS	129	MG/L	0.570	2.280	SM2540D	07/11/2008	08:30	CB
COPPER	18.0	UG/L	0.346	1.384	SM3113B	07/09/2008	13:31	JG
AMMONIA NITROGEN	0.008 I	MG/L	0.005	0.020	SM4500-NH3C	07/10/2008	11:30	YW

Radica Koutselas 07/15/2008

Dale D. Dixon / Laboratory Director — Date

Radica Koutselas / QC Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.

B = Results based upon colony counts outside the acceptable range.

H = Value based on field kit determination. Results may not be accurate.

I = Reported value is between the laboratory MDL and the PQL.

J1 = Est. value surrogate recovery limits exceeded.

J2 = Est. value. No quality control criteria exists for component.

J3 = Est. value quality control criteria for precision or accuracy not met.

J4 = Est. value. Sample matrix interference suspected.

J5 = Est. value. Data questionable due to improper lab or field protocols

K = Off-scale low. Value is known to be < the value reported.

L = Off-scale high. Value is known to be > the value reported

N = Presumptive evidence of presence of material.

O = Sampled, but analysis lost or not performed.

Q = Sample held beyond accepted hold time.

T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.

U = Analyte analyzed but not detected at the value indicated.

V = Analyte detected in sample and method blank.

Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.

Z = Too many colonies were present (TNTC). The numeric value represents the filtration volume.

! = Data deviate from historically established concentration ranges.

? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the Presence or absence of the analyte cannot be determined from the data.

* = Not reported due to interference.

NOTES:

PQL = 4xMDL.

MBAS calculated as LAS; molecular weight = 348.

X = Value exceed MCL.

For questions and comments regarding these results, please contact Katharine Dixon at (941) 723-9986

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Tampa, FL 33607-1712
(813) 281-8357 Attn: Robert D. Woithe, Ph.D.
(813) 287-1745 (fax)
RDWoithe@pbsj.com

Chain of Custody Form: Oriole Dr. Baffle Box Project
Method of discharge: SW

Laboratory Submission #: 8070190

Station ID	Sample Type	TSS (A)	TKN NO_3-NO_2 NH_3 T-N T-P (B)	o-P (Field-Filtered) (C)	Cd Cr Zn (200.7) Cu ~~(220.2)~~ Sm3111B (D)	Fecal Coliform (MF) (F)	Laboratory Sample #
		1 x 2 Quart Plastic	1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 100mL Sterile Plastic	
		Plain	1:4 H_2SO_4 pH<2 ¹	Plain	1:4 HNO_3 pH<2 ¹	NaThio	
IN	Comp	7-600P 1804					1
Out	Comp	7-600P 1804					2
	Comp						
	Comp						
	Comp						

¹ Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
2. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
3. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

Laboratory Sample Acceptability
Temperature:
pH<2: ☐ ✓

1	Collector: Hunter Ulson	Date: 7/6/08	Time: 1804	Received By:		
2	Relinquished by: Hunter Ulson	Date: 7/7/08	Time: 1545	Received By:	Date:	Time:
3	Relinquished by:	Date:	Time:	Received By:	Date:	Time:
4	Relinquished by:	Date:	Time:	Received By: Carlos Pellecer	Date: 7-7-08	Time: 1545

BENCHMARK
EnviroAnalytical Inc.

NELAC Certification # E84167

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

Submission Number : 8080130

P B S & J
5300 West Cypress Street, Suite 200
Tampa, Fl 33607-1712

Robert D. Woithe

Project Name : ORIOLE DR. BAFFLE BOX PROJECT
Date Received : 08/05/2008
Time Received : 1330

Submission Number 8080130

Sample Number: 1
Sample Date: 08/04/2008
Sample Time: 2011
Sample Description: B-IN
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	08/06/2008	09:55	JG
CHROMIUM	3.10 I	UG/L	2	8	200.7	08/07/2008	09:53	JG
ZINC	32.0	UG/L	1.4	5.6	200.7	08/06/2008	09:55	JG
TOTAL KJELDAHL NITROGEN	1.48	MG/L	0.05	0.20	351.2	08/15/2008	09:00	MWC
TOTAL NITROGEN	1.54	MG/L	0.05	0.20	353+351	08/15/2008	09:00	MWC/CB
NITRATE+NITRITE	0.057	MG/L	0.004	0.016	353.2	08/06/2008	09:30	CB
ORTHO PHOSPHORUS	0.188	MG/L	0.002	0.008	365.3	08/05/2008	16:15	YW
TOTAL PHOSPHORUS	0.298	MG/L	0.002	0.008	365.3	08/11/2008	10:05	YW
TOTAL SUSPENDED SOLIDS	28.8	MG/L	0.570	2.280	SM2540D	08/11/2008	08:30	CB
COPPER	9.88	UG/L	0.346	1.384	SM3113B	08/11/2008	16:46	JG
AMMONIA NITROGEN	0.096	MG/L	0.005	0.020	SM4500-NH3C	08/12/2008	11:00	YW

Submission Number 8080130

Sample Number: 2
Sample Date: 08/04/2008
Sample Time: 2011
Sample Description: B-OUT
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	08/06/2008	09:55	JG

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CHROMIUM	2.20 I	UG/L	2	8	200.7	08/07/2008	09:53	JG
ZINC	23.7	UG/L	1.4	5.6	200.7	08/06/2008	09:55	JG
TOTAL KJELDAHL NITROGEN	1.08	MG/L	0.05	0.20	351.2	08/15/2008	09:00	MWC
TOTAL NITROGEN	1.15	MG/L	0.05	0.20	353+351	08/15/2008	09:00	MWC/CB
NITRATE+NITRITE	0.065	MG/L	0.004	0.016	353.2	08/06/2008	09:30	CB
ORTHO PHOSPHORUS	0.176	MG/L	0.002	0.008	365.3	08/05/2008	16:15	YW
TOTAL PHOSPHORUS	0.306	MG/L	0.002	0.008	365.3	08/11/2008	10:05	YW
TOTAL SUSPENDED SOLIDS	13.8	MG/L	0.570	2.280	SM2540D	08/11/2008	08:30	CB
COPPER	5.41	UG/L	0.346	1.384	SM3113B	08/11/2008	16:46	JG
AMMONIA NITROGEN	0.048	MG/L	0.005	0.020	SM4500-NH3C	08/12/2008	11:00	YW

08/18/2008

Dale D. Dixon / Laboratory Director — Date

Radica Koutselas / QC Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.

B = Results based upon colony counts outside the acceptable range.

H = Value based on field kit determination. Results may not be accurate.

I = Reported value is between the laboratory MDL and the PQL.

J1 = Est. value surrogate recovery limits exceeded.

J2 = Est. value. No quality control criteria exists for component.

J3 = Est. value quality control criteria for precision or accuracy not met.

J4 = Est. value. Sample matrix interference suspected.

J5 = Est. value. Data questionable due to improper lab or field protocols

K = Off-scale low. Value is known to be < the value reported.

L = Off-scale high. Value is known to be > the value reported

N = Presumptive evidence of presence of material.

O = Sampled, but analysis lost or not performed.

Q = Sample held beyond accepted hold time.

T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.

U = Analyte analyzed but not detected at the value indicated.

V = Analyte detected in sample and method blank.

Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.

Z = Too many colonies were present (TNTC). The numeric value represents the filtration volume.

! = Data deviate from historically established concentration ranges.

? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the Presence or absence of the analyte cannot be determined from the data.

* = Not reported due to interference.

NOTES:

PQL = 4xMDL.

MBAS calculated as LAS; molecular weight = 348.

X = Value exceed MCL.

For questions and comments regarding these results, please contact Katharine Dixon at (941) 723-9986

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(813) 281-8357 Attn: Robert D. Woithe, Ph.D.
(813) 287-1745 (fax)
RDWoithe@pbsj.com

Chain of Custody Form: Oriole Dr. Baffle Box Project
Method of discharge: SW

Laboratory Submission #: 808030

Station ID	Sample Type	TSS (A)	TKN NO_3-NO_2 NH_3 T-N T-P (B)	o-P (~~Field~~-Filtered) Lab 0.5 (C)	Cd Cr Cu (SM3113B) Zn (200.7) (D)	~~Fecal Coliform (MF) (F)~~	Laboratory Sample #
		1 x 2 Quart Plastic	1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	~~1 x 100mL Sterile Plastic~~	
		Plain	1:4 H_2SO_4 pH<2 ☐	Plain	1:4 HNO_3 pH<2 ☐	~~NaThio~~	
B-IN	Comp	4-AUG-2008 20:11			1		1
B-OUT	Comp	4-AUG-2008 20:11			1		2
	Comp						
	Comp						
	Comp						

Instructions:
1. Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).
2. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
3. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

Laboratory Sample Acceptability
Temperature: ☐ 0°C
pH<2: ☐

1	Collector: Allan Willis	Date: 5-AUG-08	Time: 10:20	Received By: [signature]	8/5/08	1020
2	Relinquished by: [signature]	Date: 8/5/08	Time: 1210	Received By: Wayne Van Cammen	Date: 8-5-08	Time: 1210
3	Relinquished by: Wayne Van Cammen	Date: 8-5-08	Time: 1330	Received By:	Date:	Time:
4	Relinquished by:	Date:	Time:	Received By: Carlos Pellecer	Date: 8-5-08	Time: 1330

PS 30 of 3

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EnviroAnalytical Inc.

NELAC Certification # E84167

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

Submission Number : 8080292

P B S & J
5300 West Cypress Street, Suite 200
Tampa, Fl 33607-1712

Robert D. Woithe

Project Name : ORIOLE DR. BAFFLE BOX PROJECT
Date Received : 08/09/2008
Time Received : 1120

Submission Number 8080292

Sample Number: 1
Sample Date: 08/08/2008
Sample Time: 2004
Sample Description: BAFFLE BOX IN
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
CADMIUM	1.20 I	UG/L	0.9	3.6	200.7	08/14/2008	09:11	JG
CHROMIUM	13.3	UG/L	2	8	200.7	08/14/2008	09:11	JG
ZINC	205	UG/L	1.4	5.6	200.7	08/14/2008	09:11	JG
TOTAL KJELDAHL NITROGEN	4.46	MG/L	0.05	0.20	351.2	08/15/2008	09:00	MWC
TOTAL NITROGEN	4.48	MG/L	0.05	0.20	353+351	08/15/2008	09:00	MWC/CB
NITRATE+NITRITE	0.019	MG/L	0.004	0.016	353.2	08/12/2008	11:00	CB
ORTHO PHOSPHORUS	0.177	MG/L	0.002	0.008	365.3	08/10/2008	11:56	YW
TOTAL PHOSPHORUS	0.795	MG/L	0.002	0.008	365.3	08/13/2008	09:50	YW
TOTAL SUSPENDED SOLIDS	198	MG/L	0.570	2.280	SM2540D	08/11/2008	17:00	CB
COPPER	41.3	UG/L	0.346	1.384	SM3113B	08/19/2008	10:55	JG
AMMONIA NITROGEN	0.087	MG/L	0.005	0.020	SM4500-NH3C	08/15/2008	15:30	JL

Submission Number 8080292

Sample Number: 2
Sample Date: 08/08/2008
Sample Time: 2004
Sample Description: BAFFLE BOX OUT
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	08/14/2008	09:11	JG

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CHROMIUM	6.60 I	UG/L	2	8	200.7	08/14/2008	09:11	JG
ZINC	90.6	UG/L	1.4	5.6	200.7	08/14/2008	09:11	JG
TOTAL KJELDAHL NITROGEN	3.00	MG/L	0.05	0.20	351.2	08/15/2008	09:00	MWC
TOTAL NITROGEN	3.07	MG/L	0.05	0.20	353+351	08/15/2008	09:00	MWC/CB
NITRATE+NITRITE	0.074	MG/L	0.004	0.016	353.2	08/12/2008	11:00	CB
ORTHO PHOSPHORUS	0.136	MG/L	0.002	0.008	365.3	08/10/2008	11:56	YW
TOTAL PHOSPHORUS	0.456	MG/L	0.002	0.008	365.3	08/13/2008	09:50	YW
TOTAL SUSPENDED SOLIDS	122	MG/L	0.570	2.280	SM2540D	08/11/2008	17:00	CB
COPPER	19.2	UG/L	0.346	1.384	SM3113B	08/19/2008	10:55	JG
AMMONIA NITROGEN	0.084	MG/L	0.005	0.020	SM4500-NH3C	08/15/2008	15:30	JL

R. Koutselas 08/20/2008

Dale D. Dixon / Laboratory Director — Date

Radica Koutselas / QC Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.

B = Results based upon colony counts outside the acceptable range.

H = Value based on field kit determination. Results may not be accurate.

I = Reported value is between the laboratory MDL and the PQL.

J1 = Est. value surrogate recovery limits exceeded.

J2 = Est. value. No quality control criteria exists for component.

J3 = Est. value quality control criteria for precision or accuracy not met.

J4 = Est. value. Sample matrix interference suspected.

J5 = Est. value. Data questionable due to improper lab or field protocols

K = Off-scale low. Value is known to be < the value reported.

L = Off-scale high. Value is known to be > the value reported

N = Presumptive evidence of presence of material.

O = Sampled, but analysis lost or not performed.

Q = Sample held beyond accepted hold time.

T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.

U = Analyte analyzed but not detected at the value indicated.

V = Analyte detected in sample and method blank.

Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.

Z = Too many colonies were present (TNTC). The numeric value represents the filtration volume.

! = Data deviate from historically established concentration ranges.

? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the Presence or absence of the analyte cannot be determined from the data.

* = Not reported due to interference.

NOTES:

PQL = 4xMDL.

MBAS calculated as LAS; molecular weight = 348.

X = Value exceed MCL.

For questions and comments regarding these results, please contact Katharine Dixon at (941) 723-9986

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Tampa, FL 33607-1712
(813) 281-8357 Attn: Robert D. Woithe, Ph.D.
(813) 287-1745 (fax)
RDWoithe@pbsj.com

Chain of Custody Form: Oriole Dr. Baffle Box Project
Method of discharge: SW

Laboratory Submission #: 8080292

Station ID	Sample Type	TSS (A)	TKN NO_3-NO_2 NH_3 T-N T-P (B)	o-P (Field-Filtered) (C)	Cd Cr Zn (*200.7*) Cu (*220.2*) (D)	Fecal Coliform (MF) (F)	Laboratory Sample #
		1 x 2 Quart Plastic	1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 100mL Sterile Plastic	
		Plain	1:4 H_2SO_4 pH<2 ¤	Plain	1:4 HNO_3 pH<2 ¤	NaThio	
BAFFLE BOX IN	Comp	2004 8-AUG-2008					-1
BAFFLE BOX OUT	Comp	2004 8-AUG 2008					-2
	Comp						
	Comp						
	Comp						

Run out of hold time @ 08-09-08 1120

[1] Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis.
2. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
3. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

Laboratory Sample Acceptability
Temperature: 3°C
pH<2: ☑

1	Collector: DREW PRINCE	Date: 09-AUG-2008	Time: 1120	Received By: Dale Dixon	08-09-08	1120
2	Relinquished by;	Date:	Time:	Received By:	Date:	Time:
3	Relinquished by:	Date:	Time:	Received By:	Date:	Time:
4	Relinquished by:	Date:	Time:	Received By:	Date:	Time:

Page 2 of 2

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NELAC Certification # E84167

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

Submission Number : 8080304

P B S & J
5300 West Cypress Street, Suite 200
Tampa, Fl 33607-1712

Robert D. Woithe

Project Name : ORIOLE DR. BAFFLE BOX PROJECT
Date Received : 08/09/2008
Time Received : 1355

Submission Number 8080304

Sample Number: 1
Sample Date: 08/09/2008
Sample Time: 1253
Sample Description: BAFFLE BOX OUT
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	08/14/2008	09:11	JG
CHROMIUM	2 U	UG/L	2	8	200.7	08/14/2008	09:11	JG
ZINC	25.6	UG/L	1.4	5.6	200.7	08/14/2008	09:11	JG
TOTAL KJELDAHL NITROGEN	0.923	MG/L	0.05	0.20	351.2	08/15/2008	09:00	MWC
TOTAL NITROGEN	1.08	MG/L	0.05	0.20	353+351	08/15/2008	09:00	MWC/CB
NITRATE+NITRITE	0.156	MG/L	0.004	0.016	353.2	08/12/2008	11:00	CB
ORTHO PHOSPHORUS	0.090	MG/L	0.002	0.008	365.3	08/10/2008	11:56	YW
TOTAL PHOSPHORUS	0.183	MG/L	0.002	0.008	365.3	08/13/2008	09:50	YW
TOTAL SUSPENDED SOLIDS	19.2 Q	MG/L	0.570	2.280	SM2540D	08/21/2008	11:00	CB
COPPER	5.66	UG/L	0.346	1.384	SM3113B	08/19/2008	10:55	JG
AMMONIA NITROGEN	0.032	MG/L	0.005	0.020	SM4500-NH3C	08/15/2008	15:30	JL
FECAL COLIFORM	20000 Z	#/100 ML	100	400	SM9222D	08/09/2008	14:25	JG/CUS

Submission Number 8080304

Sample Number: 2
Sample Date: 08/09/2008
Sample Time: 1253
Sample Description: BAFFLE BOX IN
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst

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CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	08/14/2008	09:11	JG
CHROMIUM	2.50 I	UG/L	2	8	200.7	08/14/2008	09:11	JG
ZINC	46.3	UG/L	1.4	5.6	200.7	08/14/2008	09:11	JG
TOTAL KJELDAHL NITROGEN	1.68	MG/L	0.05	0.20	351.2	08/15/2008	09:00	MWC
TOTAL NITROGEN	1.73	MG/L	0.05	0.20	353+351	08/15/2008	09:00	MWC/CB
NITRATE+NITRITE	0.048	MG/L	0.004	0.016	353.2	08/12/2008	11:00	CB
ORTHO PHOSPHORUS	0.095	MG/L	0.002	0.008	365.3	08/10/2008	11:56	YW
TOTAL PHOSPHORUS	0.278	MG/L	0.002	0.008	365.3	08/13/2008	09:50	YW
TOTAL SUSPENDED SOLIDS	65.6 Q	MG/L	0.570	2.280	SM2540D	08/21/2008	11:00	CB
COPPER	9.95	UG/L	0.346	1.384	SM3113B	08/19/2008	10:55	JG
AMMONIA NITROGEN	0.037	MG/L	0.005	0.020	SM4500-NH3C	08/15/2008	15:30	JL
FECAL COLIFORM	20000 Z	#/100 ML	100	400	SM9222D	08/09/2008	14:25	JG/CUS

Radica Koutselas 08/26/2008

Dale D. Dixon / Laboratory Director — Date

Radica Koutselas / QC Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.

B = Results based upon colony counts outside the acceptable range.

H = Value based on field kit determination. Results may not be accurate.

I = Reported value is between the laboratory MDL and the PQL.

J1 = Est. value surrogate recovery limits exceeded.

J2 = Est. value. No quality control criteria exists for component.

J3 = Est. value quality control criteria for precision or accuracy not met.

J4 = Est. value. Sample matrix interference suspected.

J5 = Est. value. Data questionable due to improper lab or field protocols

K = Off-scale low. Value is known to be < the value reported.

L = Off-scale high. Value is known to be > the value reported

N = Presumptive evidence of presence of material.

O = Sampled, but analysis lost or not performed.

Q = Sample held beyond accepted hold time.

T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.

U = Analyte analyzed but not detected at the value indicated.

V = Analyte detected in sample and method blank.

Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.

Z = Too many colonies were present (TNTC). The numeric value represents the filtration volume.

I = Data deviate from historically established concentration ranges.

? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the Presence or absence of the analyte cannot be determined from the data.

* = Not reported due to interference.

NOTES:

PQL = 4xMDL.

MBAS calculated as LAS; molecular weight = 348.

X = Value exceed MCL.

For questions and comments regarding these results, please contact Katharine Dixon at (941) 723-9986

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(813) 281-8357 Attn: Robert D. Woithe, Ph.D.
(813) 287-1745 (fax)
RDWoithe@pbsj.com

Chain of Custody Form: Oriole Dr. Baffle Box Project
Method of discharge: SW

Laboratory Submission #: 8080304

Station ID	Sample Type	TSS (A)	TKN NO_3-NO_2 NH_3 T-N T-P (B)	o-P (Field-Filtered) (C)	Cd Cr Cu (SM3113B) Zn (200.7) (D)	Fecal Coliform (MF) (F)	Laboratory Sample #
		1 x 2 Quart Plastic	1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 100mL Sterile Plastic	
		Plain	1:4 H_2SO_4 pH<2 ☐	Plain	1:4 HNO_3 pH<2 ☐	NaThio	
BAFFLE BOX OUT	Comp	1253 9-AUG-2008	—	—	—	—	1
BAFFLE BOX IN	Comp	1253 9-AUG-2008	—	—	—	—	2
	Comp						
	Comp						
	Comp						

[1] Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
2. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
3. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

Laboratory Sample Acceptability
Temperature: 27°C
pH<2: ☐

1	Collector: DREW PRINCE	Date: 9-AUG-2008	Time: 1350	Received By: [signature]	8/9/08	13:55
2	Relinquished by;	Date:	Time:	Received By:	Date:	Time:
3	Relinquished by:	Date:	Time:	Received By:	Date:	Time:
4	Relinquished by:	Date:	Time:	Received By:	Date:	Time:

BENCHMARK
EnviroAnalytical Inc.

NELAC Certification # E84167

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

Submission Number : 8090343

P B S & J
5300 West Cypress Street, Suite 200
Tampa, Fl 33607-1712

Robert D. Woithe

Project Name : ORIOLE DR. BAFFLE BOX PROJECT
Date Received : 09/10/2008
Time Received : 1330

Submission Number 8090343

Sample Number: 1
Sample Date: 09/09/2008
Sample Time: 1725
Sample Description: BAFFLE BOX OUT
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	09/12/2008	10:09	JG
CHROMIUM	2.60	UG/L	2	8	200.7	09/12/2008	10:09	JG
ZINC	23.1	UG/L	1.4	5.6	200.7	09/12/2008	10:09	JG
TOTAL KJELDAHL NITROGEN	2.86	MG/L	0.05	0.20	351.2	09/17/2008	10:30	MWC
TOTAL NITROGEN	2.88	MG/L	0.05	0.20	353+351	09/17/2008	10:30	MWC/CB
NITRATE+NITRITE AS N	0.024	MG/L	0.004	0.016	353.2	09/10/2008	15:00	CB
ORTHO PHOSPHORUS AS P	0.102	MG/L	0.002	0.008	365.3	09/10/2008	17:19	YW
TOTAL PHOSPHORUS AS P	0.302	MG/L	0.002	0.008	365.3	09/11/2008	14:30	YW
TOTAL SUSPENDED SOLIDS	45.4	MG/L	0.570	2.280	SM2540D	09/12/2008	08:30	CB
COPPER	5.71	UG/L	0.346	1.384	SM3113B	09/15/2008	10:14	JG
AMMONIA NITROGEN	0.028	MG/L	0.005	0.020	SM4500-NH3C	09/12/2008	15:44	JL
FECAL COLIFORM	20000 CJ3Z	#/100 ML	100	400	SM9222D	09/10/2008	15:15	CUS

Submission Number 8090343

Sample Number: 2
Sample Date: 09/09/2008
Sample Time: 1725
Sample Description: BAFFLE BOX IN
Sample Method: Composite

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst

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CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	09/12/2008	10:09	JG
CHROMIUM	3.10	UG/L	2	8	200.7	09/12/2008	10:09	JG
ZINC	56.7	UG/L	1.4	5.6	200.7	09/12/2008	10:09	JG
TOTAL KJELDAHL NITROGEN	6.02	MG/L	0.05	0.20	351.2	09/17/2008	10:30	MWC
TOTAL NITROGEN	6.02	MG/L	0.05	0.20	353+351	09/17/2008	10:30	MWC/CB
NITRATE+NITRITE AS N	0.004 U	MG/L	0.004	0.016	353.2	09/10/2008	15:00	CB
ORTHO PHOSPHORUS AS P	0.311	MG/L	0.002	0.008	365.3	09/10/2008	17:19	YW
TOTAL PHOSPHORUS AS P	0.741	MG/L	0.002	0.008	365.3	09/11/2008	14:30	YW
TOTAL SUSPENDED SOLIDS	134	MG/L	0.570	2.280	SM2540D	09/12/2008	08:30	CB
COPPER	17.0	UG/L	0.346	1.384	SM3113B	09/15/2008	10:14	JG
AMMONIA NITROGEN	0.065	MG/L	0.005	0.020	SM4500-NH3C	09/12/2008	15:44	JL
FECAL COLIFORM	20000 CJ3Z	#/100 ML	100	400	SM9222D	09/10/2008	15:15	CUS

R. Koutselas 09/19/2008

Dale D. Dixon / Laboratory Director — Date

Radica Koutselas / QC Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.

B = Results based upon colony counts outside the acceptable range.

H = Value based on field kit determination. Results may not be accurate.

I = Reported value is between the laboratory MDL and the PQL.

J1 = Est. value surrogate recovery limits exceeded.

J2 = Est. value. No quality control criteria exists for component.

J3 = Est. value quality control criteria for precision or accuracy not met.

J4 = Est. value. Sample matrix interference suspected.

J5 = Est. value. Data questionable due to improper lab or field protocols

K = Off-scale low. Value is known to be < the value reported.

L = Off-scale high. Value is known to be > the value reported

N = Presumptive evidence of presence of material.

O = Sampled, but analysis lost or not performed.

Q = Sample held beyond accepted hold time.

T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.

U = Analyte analyzed but not detected at the value indicated.

V = Analyte detected in sample and method blank.

Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.

Z = Too many colonies were present (TNTC). The numeric value represents the filtration volume.

! = Data deviate from historically established concentration ranges.

? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the Presence or absence of the analyte cannot be determined from the data.

* = Not reported due to interference.

C = Contamination in blanks.

NOTES:

PQL = 4xMDL.

MBAS calculated as LAS; molecular weight = 348.

X = Value exceed MCL.

For questions and comments regarding these results, please contact Katharine Dixon at (941) 723-9986

Results relate only to the samples.

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(813) 287-1745 (fax)
RDWoithe@pbsj.com

Chain of Custody Form: Oriole Dr. Baffle Box Project
Method of discharge: SW

Laboratory Submission #: R090343

Station ID	Sample Type	TSS (A)	TKN NO_3-NO_2 NH_3 T-N T-P (B)	o-P (Field-Filtered) (C)	Cd Cr Cu (SM3113B) Zn (200.7) (D)	Fecal Coliform (MF) (F)	Laboratory Sample #
		1 x 2 Quart Plastic	1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 100mL Sterile Plastic	
		Plain	1:4 H_2SO_4 pH<2 ☐	Plain	1:4 HNO_3 pH<2 ☐	NaThio	
BAFFLE BOX OUT	Comp	9TH OF SEPT 1725 EST	→			→	1
BAFFLE BOX IN	Comp	9-SEPT-2008 1725 EST	→			→	2
	Comp						
	Comp						
	Comp						

[1] Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
2. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
3. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

Laboratory Sample Acceptability
Temperature: 0.1°C
pH<2: ☒

1	Collector: DREW PRINCE	Date: 9/10/08	Time: 1005	Received By: Melinda Merchant	9/10/08	1005
2	Relinquished by: Melinda Merchant	Date: 9/10/08	Time: 1210	Received By: Wayne Van Cammen	Date: 9-10-08	Time: 1210
3	Relinquished by: Wayne Van Cammen	Date: 9-10-08	Time: 1330	Received By:	Date:	Time:
4	Relinquished by:	Date:	Time:	Received By: Aspen M Hood	Date: 9-10-08	Time: 1330

DATE 2 INC 2

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NELAC Certification # E84167

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

Submission Number : 8090938

P B S & J
5300 West Cypress Street, Suite 200
Tampa, Fl 33607-1712

Robert D. Woithe

Project Name : ORIOLE DR. BAFFLE BOX PROJECT
Date Received : 09/30/2008
Time Received : 1115

Submission Number 8090938

Sample Number: 1
Sample Date: 09/30/2008
Sample Time: 0239
Sample Description: Baffle In
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	10/02/2008	09:53	JG
CHROMIUM	3.00 I	UG/L	0.9	3.6	200.7	10/02/2008	09:53	JG
ZINC	30.5	UG/L	1.4	5.6	200.7	10/02/2008	09:53	JG
TOTAL KJELDAHL NITROGEN	1.19	MG/L	0.05	0.20	351.2	10/06/2008	11:00	MWC
TOTAL NITROGEN	1.31	MG/L	0.05	0.20	353+351	10/06/2008	11:00	MWC/CB
NITRATE+NITRITE AS N	0.119	MG/L	0.004	0.016	353.2	10/02/2008	10:30	CB
ORTHO PHOSPHORUS AS P	0.219	MG/L	0.002	0.008	365.3	09/30/2008	16:27	YW
TOTAL PHOSPHORUS AS P	0.356	MG/L	0.002	0.008	365.3	10/03/2008	14:20	YW
TOTAL SUSPENDED SOLIDS	45.6	MG/L	0.570	2.280	SM2540D	10/01/2008	10:00	AC
COPPER	6.09	UG/L	0.346	1.384	SM3113B	10/01/2008	14:07	JG
AMMONIA NITROGEN	0.147	MG/L	0.005	0.020	SM4500-NH3C	10/08/2008	16:01	YW
FECAL COLIFORM	27000 C	#/100 ML	1000	4000	SM9222D	09/30/2008	13:00	CUS

Submission Number 8090938

Sample Number: 2
Sample Date: 09/30/2008
Sample Time: 0500
Sample Description: Baffle Out
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst

BENCHMARK
EnviroAnalytical Inc.

NELAC Certification # E84167

CADMIUM	2 U	UG/L	2	8	200.7	10/02/2008	09:53	JG
CHROMIUM	2 U	UG/L	2	8	200.7	10/02/2008	09:53	JG
ZINC	9.30	UG/L	1.4	5.6	200.7	10/02/2008	09:53	JG
TOTAL KJELDAHL NITROGEN	0.714	MG/L	0.05	0.20	351.2	10/06/2008	11:00	MWC
TOTAL NITROGEN	0.823	MG/L	0.05	0.20	353+351	10/06/2008	11:00	MWC/CB
NITRATE+NITRITE AS N	0.109	MG/L	0.004	0.016	353.2	10/02/2008	10:30	CB
ORTHO PHOSPHORUS AS P	0.209	MG/L	0.002	0.008	365.3	09/30/2008	16:27	YW
TOTAL PHOSPHORUS AS P	0.280	MG/L	0.002	0.008	365.3	10/03/2008	14:20	YW
TOTAL SUSPENDED SOLIDS	5.20	MG/L	1	4	SM2540G	10/01/2008	10:00	AC
COPPER	4.33	UG/L	0.346	1.384	SM3113B	10/01/2008	14:07	JG
AMMONIA NITROGEN	0.126	MG/L	0.005	0.020	SM4500-NH3C	10/08/2008	16:01	YW
FECAL COLIFORM	29000 C	#/100 ML	1000	4000	SM9222D	09/30/2008	13:00	CUS

R. Koutselas 10/10/2008

Dale D. Dixon / Laboratory Director — Date

Radica Koutselas / QC Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.

B = Results based upon colony counts outside the acceptable range.

H = Value based on field kit determination. Results may not be accurate.

I = Reported value is between the laboratory MDL and the PQL.

J1 = Est. value surrogate recovery limits exceeded.

J2 = Est. value. No quality control criteria exists for component.

J3 = Est. value quality control criteria for precision or accuracy not met.

J4 = Est. value. Sample matrix interference suspected.

J5 = Est. value. Data questionable due to improper lab or field protocols

K = Off-scale low. Value is known to be < the value reported.

L = Off-scale high. Value is known to be > the value reported

N = Presumptive evidence of presence of material.

O = Sampled, but analysis lost or not performed.

Q = Sample held beyond accepted hold time.

T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.

U = Analyte analyzed but not detected at the value indicated.

V = Analyte detected in sample and method blank.

Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.

Z = Too many colonies were present (TNTC). The numeric value represents the filtration volume.

! = Data deviate from historically established concentration ranges.

? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the Presence or absence of the analyte cannot be determined from the data.

* = Not reported due to interference.

NOTES:

PQL = 4xMDL.

MBAS calculated as LAS; molecular weight = 348.

X = Value exceed MCL.

NOTES: C = Samples received out of hold time.

For questions and comments regarding these results, please contact Katharine Dixon at (941) 723-9986

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Client: **PBS & J**
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Tampa, FL 33607-1712
(813) 281-8357 Attn: Robert D. Woithe, Ph.D.
(813) 287-1745 (fax)
RDWoithe@pbsj.com

Chain of Custody Form: Oriole Dr. Baffle Box Project
Method of discharge: SW

Laboratory Submission #: 8090938

Station ID	Sample Type	TSS (A)	TKN, NO_3-NO_2, NH_3, T-N, T-P (B)	o-P (Field-Filtered) (C)	Cd Cr Cu (SM3113B) Zn (*200.7*) (D)	Fecal Coliform (MF) (F)	Laboratory Sample #
		1 x 2 Quart Plastic	1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 100mL Sterile Plastic	
		Plain	1:4 H_2SO_4 pH<2	Plain	1:4 HNO_3 pH<2	NaThio	
BAFFLE IN	Comp	30-SEPT-2008 @0239 (EST)					1
BAFFLE OUT	Comp	30-SEPT-2008 @0500 (EST)					2
	Comp						
	Comp						
	Comp						

[1] Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
2. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
3. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

Laboratory Sample Acceptability
Temperature: 6°C
pH<2: ☐

1	Collector: DREW PIRINGE	Date: 30-SEPT 2008	Time: 1115	Received By:		
2	Relinquished by;	Date:	Time:	Received By:	Date:	Time:
3	Relinquished by:	Date:	Time:	Received By:	Date:	Time:
4	Relinquished by:	Date:	Time:	Received By:	Date: 9/30/08	Time: 1115

Pg 3 of 2

BENCHMARK
EnviroAnalytical Inc.

NELAC Certification # E84167

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

Submission Number : 8100192

P B S & J
5300 West Cypress Street, Suite 200
Tampa, Fl 33607-1712

Robert D. Woithe

Project Name : ORIOLE DR. BAFFLE BOX PROJECT
Date Received : 10/06/2008
Time Received : 1645

Submission Number 8100192

Sample Number: 1 **Sample Description:** B-IN
Sample Date: 10/06/2008 **Sample Method:** Composite
Sample Time: 1431

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	10/09/2008	10:04	JG
CHROMIUM	5.80 I	UG/L	2	8	200.7	10/09/2008	10:04	JG
ZINC	94.7	UG/L	1.4	5.6	200.7	10/09/2008	10:04	JG
TOTAL KJELDAHL NITROGEN	2.30	MG/L	0.05	0.20	351.2	10/16/2008	11:00	MWC
TOTAL NITROGEN	2.30	MG/L	0.05	0.20	353+351	10/16/2008	11:00	MWC/CB
NITRATE+NITRITE AS N	0.004 U	MG/L	0.004	0.016	353.2	10/06/2008	16:55	CB
ORTHO PHOSPHORUS AS P	0.164	MG/L	0.002	0.008	365.3	10/08/2008	09:27	YW
TOTAL PHOSPHORUS AS P	0.496	MG/L	0.002	0.008	365.3	10/10/2008	15:44	YW
TOTAL SUSPENDED SOLIDS	57.0	MG/L	0.570	2.280	SM2540D	10/08/2008	12:00	AC
COPPER	15.4	UG/L	0.346	1.384	SM3113B	10/10/2008	10:43	JG
AMMONIA NITROGEN	0.308	MG/L	0.005	0.020	SM4500-NH3C	10/09/2008	15:30	YW
FECAL COLIFORM	49000	#/100 ML	1000	4000	SM9222D	10/06/2008	16:55	CUS

Submission Number 8100192

Sample Number: 2 **Sample Description:** B-OUT
Sample Date: 10/06/2008 **Sample Method:** Composite
Sample Time: 1421

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst

BENCHMARK
EnviroAnalytical Inc.

NELAC Certification # E84167

CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	10/09/2008	10:04	JG
CHROMIUM	4.10 I	UG/L	2	8	200.7	10/09/2008	10:04	JG
ZINC	38.2	UG/L	1.4	5.6	200.7	10/09/2008	10:04	JG
TOTAL KJELDAHL NITROGEN	1.65	MG/L	0.05	0.20	351.2	10/16/2008	11:00	MWC
TOTAL NITROGEN	1.65	MG/L	0.05	0.20	353+351	10/16/2008	11:00	MWC/CB
NITRATE+NITRITE AS N	0.004 U	MG/L	0.004	0.016	353.2	10/06/2008	16:55	CB
ORTHO PHOSPHORUS AS P	0.170	MG/L	0.002	0.008	365.3	10/08/2008	09:27	YW
TOTAL PHOSPHORUS AS P	0.362	MG/L	0.002	0.008	365.3	10/10/2008	15:44	YW
TOTAL SUSPENDED SOLIDS	41.2	MG/L	0.570	2.280	SM2540D	10/08/2008	12:00	AC
COPPER	7.84	UG/L	0.346	1.384	SM3113B	10/10/2008	10:43	JG
AMMONIA NITROGEN	0.213	MG/L	0.005	0.020	SM4500-NH3C	10/09/2008	15:30	YW
FECAL COLIFORM	44000	#/100 ML	1000	4000	SM9222D	10/06/2008	16:55	CUS

R. Koutselas 10/20/2008

Dale D. Dixon / Laboratory Director — Date

Radica Koutselas / QC Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.

B = Results based upon colony counts outside the acceptable range.

H = Value based on field kit determination. Results may not be accurate.

I = Reported value is between the laboratory MDL and the PQL.

J1 = Est. value surrogate recovery limits exceeded.

J2 = Est. value. No quality control criteria exists for component.

J3 = Est. value quality control criteria for precision or accuracy not met.

J4 = Est. value. Sample matrix interference suspected.

J5 = Est. value. Data questionable due to improper lab or field protocols

K = Off-scale low. Value is known to be < the value reported.

L = Off-scale high. Value is known to be > the value reported

N = Presumptive evidence of presence of material.

O = Sampled, but analysis lost or not performed.

Q = Sample held beyond accepted hold time.

T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.

U = Analyte analyzed but not detected at the value indicated.

V = Analyte detected in sample and method blank.

Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.

Z = Too many colonies were present (TNTC). The numeric value represents the filtration volume.

! = Data deviate from historically established concentration ranges.

? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the Presence or absence of the analyte cannot be determined from the data.

* = Not reported due to interference.

NOTES:

PQL = 4xMDL.

MBAS calculated as LAS; molecular weight = 348.

X = Value exceed MCL.

NOTES:

For questions and comments regarding these results, please contact Bettina Beilfuss at (941) 723-9986

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(813) 287-1745 (fax)
RDWoithe@pbsj.com

Chain of Custody Form: Oriole Dr. Baffle Box Project
Method of discharge: SW

Laboratory Submission #: 12 8100192

Station ID	Sample Type	TSS (A)	TKN NO_3-NO_2 NH_3 T-N T-P (B)	o-P ~~(Field~~-Filtered) Lab (C)	Cd Cr Cu (SM3113B) Zn (200.7) (D)	Fecal Coliform (MF) (F)	Laboratory Sample #
		1 x ½ Quart Plastic	1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 100mL Sterile Plastic	
		Plain	1:4 H_2SO_4 pH<2 ☐	Plain	1:4 HNO_3 pH<2 ☐	NaThio	
BAFFLE BOX IN	Comp	10/6/2008 1431	→			→	1
BAFFLE BOX OUT	Comp	10/6/2008 1421	→			→	2
	Comp						
	Comp						
	Comp						

[1] Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
2. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
3. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

Laboratory Sample Acceptability
Temperature: ☐ ✓
pH<2: ☐ ✓

1	Collector: DREW PRINCE	Date: 10/6/2008	Time: 1645	Received By:		
2	Relinquished by;	Date:	Time:	Received By:	Date:	Time:
3	Relinquished by:	Date:	Time:	Received By:	Date:	Time:
4	Relinquished by:	Date:	Time:	Received By: 10/6/08	Date:	Time: 1045

R 2 of 2

BENCHMARK
EnviroAnalytical Inc.

NELAC Certification # E84167

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

Submission Number : 9010403

P B S & J
5300 West Cypress Street, Suite 200
Tampa, Fl 33607-1712

Robert D. Woithe

Project Name : ORIOLE DR. BAFFLE BOX PROJECT
Date Received : 01/13/2009
Time Received : 1700

Submission Number 9010403

Sample Number: 1
Sample Date: 01/13/2009
Sample Time: 1519
Sample Description: In
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	01/22/2009	11:50	JG
CHROMIUM	3.60 I	UG/L	2	8	200.7	01/22/2009	11:50	JG
ZINC	72.5	UG/L	1.4	5.6	200.7	01/22/2009	11:50	JG
TOTAL KJELDAHL NITROGEN	7.05	MG/L	0.05	0.20	351.2	01/20/2009	10:00	MWC
TOTAL NITROGEN	7.20	MG/L	0.05	0.20	353+351	01/20/2009	10:00	MWC/CB
NITRATE+NITRITE AS N	0.154	MG/L	0.004	0.016	353.2	01/14/2009	11:00	CB
ORTHO PHOSPHORUS AS P	0.266	MG/L	0.002	0.008	365.3	01/14/2009	16:52	YW
TOTAL PHOSPHORUS AS P	0.750	MG/L	0.002	0.008	EPA365.3	01/15/2009	14:40	YW
TOTAL SUSPENDED SOLIDS	143	MG/L	0.570	2.280	SM2540D	01/19/2009	15:00	AC
COPPER	15.9	UG/L	0.346	1.384	SM3113B	01/21/2009	09:51	JG
AMMONIA NITROGEN	0.296	MG/L	0.005	0.020	SM4500-NH3C	01/16/2009	15:30	YW
FECAL COLIFORM	21000	#/100 ML	1000	4000	SM9222D	01/13/2009	17:00	CUS

Submission Number 9010403

Sample Number: 2
Sample Date: 01/13/2009
Sample Time: 1522
Sample Description: Out
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst

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EnviroAnalytical Inc.

NELAC Certification # E84167

CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	01/22/2009	11:50	JG
CHROMIUM	7.60 I	UG/L	2	8	200.7	01/22/2009	11:50	JG
ZINC	140	UG/L	1.4	5.6	200.7	01/22/2009	11:50	JG
TOTAL KJELDAHL NITROGEN	4.91	MG/L	0.05	0.20	351.2	01/20/2009	10:00	MWC
TOTAL NITROGEN	5.10	MG/L	0.05	0.20	353+351	01/20/2009	10:00	MWC/CB
NITRATE+NITRITE AS N	0.190	MG/L	0.004	0.016	353.2	01/14/2009	11:00	CB
ORTHO PHOSPHORUS AS P	0.277	MG/L	0.002	0.008	365.3	01/14/2009	16:52	YW
TOTAL PHOSPHORUS AS P	0.744	MG/L	0.002	0.008	EPA365.3	01/15/2009	14:40	YW
TOTAL SUSPENDED SOLIDS	198	MG/L	0.570	2.280	SM2540D	01/19/2009	15:00	AC
COPPER	29.2	UG/L	0.346	1.384	SM3113B	01/21/2009	09:51	JG
AMMONIA NITROGEN	0.313	MG/L	0.005	0.020	SM4500-NH3C	01/16/2009	15:30	YW
FECAL COLIFORM	25000	#/100 ML	1000	4000	SM9222D	01/13/2009	17:00	CUS

Submission Number 9010403

Sample Number: 3 **Sample Description:** Dup
Sample Date: 01/13/2009 **Sample Method:** Grab
Sample Time: N/A

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date	Analysis Time	Analyst
CADMIUM	0.9 U	UG/L	0.9	3.6	200.7	01/22/2009	11:50	JG
CHROMIUM	9.40	UG/L	2	8	200.7	01/22/2009	11:50	JG
ZINC	152	UG/L	1.4	5.6	200.7	01/22/2009	11:50	JG
TOTAL KJELDAHL NITROGEN	5.10	MG/L	0.05	0.20	351.2	01/20/2009	10:00	MWC
TOTAL NITROGEN	5.28	MG/L	0.05	0.20	353+351	01/20/2009	10:00	MWC/CB
NITRATE+NITRITE AS N	0.179	MG/L	0.004	0.016	353.2	01/14/2009	11:00	CB
ORTHO PHOSPHORUS AS P	0.273	MG/L	0.002	0.008	365.3	01/14/2009	16:52	YW
TOTAL PHOSPHORUS AS P	0.772	MG/L	0.002	0.008	EPA365.3	01/15/2009	14:40	YW
TOTAL SUSPENDED SOLIDS	206	MG/L	0.570	2.280	SM2540D	01/19/2009	15:00	AC
COPPER	28.7	UG/L	0.346	1.384	SM3113B	01/21/2009	09:51	JG
AMMONIA NITROGEN	0.309	MG/L	0.005	0.020	SM4500-NH3C	01/16/2009	15:30	YW

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BENCHMARK
EnviroAnalytical Inc.

NELAC Certification # E84167

R. Koutselos 01/28/2009

Dale D. Dixon / Laboratory Director — Date

Radica Koutselas / QC Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.

B = Results based upon colony counts outside the acceptable range.

H = Value based on field kit determination. Results may not be accurate.

I = Reported value is between the laboratory MDL and the PQL.

J1 = Est. value surrogate recovery limits exceeded.

J2 = Est. value. No quality control criteria exists for component.

J3 = Est. value quality control criteria for precision or accuracy not met.

J4 = Est. value. Sample matrix interference suspected.

J5 = Est. value. Data questionable due to improper lab or field protocols

K = Off-scale low. Value is known to be < the value reported.

L = Off-scale high. Value is known to be > the value reported

N = Presumptive evidence of presence of material.

O = Sampled, but analysis lost or not performed.

Q = Sample held beyond accepted hold time.

T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.

U = Analyte analyzed but not detected at the value indicated.

V = Analyte detected in sample and method blank.

Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.

Z = Too many colonies were present (TNTC). The numeric value represents the filtration volume.

! = Data deviate from historically established concentration ranges.

? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the Presence or absence of the analyte cannot be determined from the data.

* = Not reported due to interference.

NOTES:

PQL = 4xMDL.

MBAS calculated as LAS; molecular weight = 348.

X = Value exceed MCL.

NOTES:

For questions and comments regarding these results, please contact Bettina Beilfuss at (941) 723-9986

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(813) 287-1745 (fax)
RDWoithe@pbsj.com

Chain of Custody Form: Oriole Dr. Baffle Box Project
Method of discharge: SW

Laboratory Submission #: 12 9010403

Station ID	Sample Type	TSS (A)	TKN NO_3-NO_2 NH_3 T-N T-P (B)	o-P (~~Field~~-Filtered) Lab (C)	Cd Cr Cu (SM3113B) Zn (200.7) (D)	Fecal Coliform (MF) (F)	Laboratory Sample #
		1 x 2 Quart Plastic	1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 100mL Sterile Plastic	
		Plain	1:4 H_2SO_4 pH<2	Plain	1:4 HNO_3 pH<2	NaThio	
In	Comp	1-13-09 1519					1
Out	Comp	1-13-09-1522					2
Dup	Comp	1-13-09	N/A			no sample	3
	Comp						
	Comp						

[1] Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis.
   The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
2. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
3. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

Laboratory Sample Acceptability
Temperature: ☒ 9a
pH<2: ☐

1	Collector:	Date:	Time:	Received By:		
2	Relinquished by:	Date: 1-13-08	Time: 1700	Received By:	Date:	Time:
3	Relinquished by:	Date:	Time:	Received By:	Date:	Time:
4	Relinquished by:	Date:	Time:	Received By:	Date: 1-13-08	Time: 1700

hty h 9a

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

March 28, 2007

To: Siaka Kone
SUTRON
6903 Visa Pkwy N #5
West Palm Beach, FL 33411

Client: SUTRON
Workorder ID: Rockledge Baffle Box **[2027322]**
Received: 3/16/07 10:50

Dear Siaka Kone;

Analytical results presented in this report have been reviewed for compliance with the HARBOR BRANCH Environmental Laboratories Inc.'s (HBEL) Quality Systems Manual, and have been determined to meet the standards referenced in the July 2003 National Environmental Laboratory Accreditation Program (NELAP) Quality Manual. The associated Quality Control parameters have been evaluated and meet all Method, Compliance and Standards criteria unless otherwise noted on a Quality Control Summary Page.

FDOH Safe Drinking Water Act, Clean Water Act and RCRA Certification #'s:
E96080, E83509, E85370, E84418
Effective 07/01/06 through 06/30/07

Analytical results herein reflect the values obtained from tests performed on samples as received by the laboratory unless otherwise indicated.

Should you have any questions, please contact HBEL at (772) 465-2400, Ext. 285 and reference the HBEL Workorder ID [Number], or via e-mail at HBEL@HBOI.EDU.

Respectfully submitted,

Cindy Cromer	Don Hash	Eric Charest
HBEL, Inc. Director	HBEL, Inc. Project Manager	HBEL, Inc. Q.A. Manager

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Project Summary
Analytical Hits/Method Narratives

Client: SUTRON
Workorder ID: Rockledge Baffle Box **[2027322]**
Received: 3/16/07 10:50

Sample Cross Reference Table

HBEL Sample Number:	Client Sample ID
2027322001	Rock-Up grab
2027322002	Rock-Dn grab

Analytical Hits (If Applicable)

HBEL Sample Number	Sample ID	Parameter	Method	Result	Units
2027322001	Rock-Up grab				
		Total Suspended Solids	EPA 160.2	**38**	mg/L
		Chromium	EPA 200.7	**0.0034**	mg/L
		Copper	EPA 200.7	**0.010**	mg/L
		Zinc	EPA 200.7	**0.064**	mg/L
		Ammonia, as N	EPA 350.1	**0.55**	mg/L
		Total Kjeldahl Nitrogen	EPA 351.2	**3.6**	mg/L
		Total Nitrogen	EPA 351.2	**4.7**	mg/L
		Nitrate/Nitrite as N	EPA 353.2	**1.0**	mg/L
		Orthophosphate as P	EPA 365.1	**0.93**	mg/L
		Total Phosphorus as P	EPA 365.4	**1.3**	mg/L
		Fecal Coliform	SM9221 E	**17000**	MPN/100mL
2027322002	Rock-Dn grab				
		Total Suspended Solids	EPA 160.2	**14**	mg/L
		Copper	EPA 200.7	**0.0077**	mg/L
		Zinc	EPA 200.7	**0.038**	mg/L
		Ammonia, as N	EPA 350.1	**0.77**	mg/L
		Total Kjeldahl Nitrogen	EPA 351.2	**3.5**	mg/L
		Total Nitrogen	EPA 351.2	**4.2**	mg/L
		Nitrate/Nitrite as N	EPA 353.2	**0.67**	mg/L
		Orthophosphate as P	EPA 365.1	**1.0**	mg/L
		Total Phosphorus as P	EPA 365.4	**1.4**	mg/L
		Fecal Coliform	SM9221 E	**160000**	MPN/100mL

Method Narratives (If Applicable)

HBEL Sample Number	Sample ID	Analytical Method	Description

Quality Control Summary

Method	HBEL Batch	Analyte	Analytical Issue
Nitrate/Nitrite			

Nitrate/Nitrite as N	Accuracy - Outside acceptance limits in the LCS.

Accuracy demonstrated with other QC samples.

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

CERTIFICATE OF ANALYSIS

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Sample ID: Rock-Up grab
Matrix: Environmental Water

Laboratory ID: **2027322001**
Sampled: 03/16/07 8:20
Received: 03/16/07 10:50

Parameter	Qualifier	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Result[1]	Units	Detection Limit	Reporting Limit	Lab ID
Results reported on Wet Weight Basis											
Total Suspended Solids		EPA 160.2	WCGE27235		03/16/07 17:00	TCL	**38**	mg/L	0.7	2.8	E96080
Cadmium		EPA 200.7	META8342	03/26/07 10:09	03/27/07 12:06	DM	**0.00070 U**	mg/L	0.00070	0.0028	E96080
Chromium		EPA 200.7	META8342	03/26/07 10:09	03/27/07 12:06	DM	**0.0034I**	mg/L	0.0018	0.0072	E96080
Copper		EPA 200.7	META8342	03/26/07 10:09	03/27/07 12:06	DM	**0.010**	mg/L	0.0014	0.0056	E96080
Zinc		EPA 200.7	META8342	03/26/07 10:09	03/27/07 12:06	DM	**0.064**	mg/L	0.010	0.040	E96080
Ammonia, as N		EPA 350.1	AUTO15455		03/19/07 14:42	JL	**0.55**	mg/L	0.0090	0.036	E96080
Total Kjeldahl Nitrogen		EPA 351.2	AUTO15469	03/21/07 11:20	03/21/07 17:26	DM	**3.6**	mg/L	0.22	0.88	E96080
Total Nitrogen		EPA 351.2	CALC5363		03/26/07 12:44	DH	**4.7**	mg/L	0.048	0.19	E96080
Nitrate/Nitrite as N		EPA 353.2	AUTO15471		03/23/07 11:29	DM	**1.0**	mg/L	0.0075	0.030	E96080
Orthophosphate as P		EPA 365.1	AUTO15449		03/16/07 12:38	JL	**0.93**	mg/L	0.019	0.076	E96080
Total Phosphorus as P		EPA 365.4	AUTO15466	03/21/07 11:20	03/21/07 17:25	DM	**1.3**	mg/L	0.058	0.23	E96080
Fecal Coliform		SM9221 E	MICR11735		03/16/07 12:05	GS	**17000**	MPN/100mL	2.0	2.0	E96080

Result Qualifiers: U = Not Detected I = Analyte detected between the Laboratory Method Detection Limit and Laboratory Reporting Limit
Applicable Florida Department of Environmental Protection Qualifiers defined below. Statement of Estimated Uncertainty available upon request.

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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

CERTIFICATE OF ANALYSIS

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Sample ID: Rock-Dn grab
Matrix: Environmental Water

Laboratory ID: **2027322002**
Sampled: 03/16/07 8:50
Received: 03/16/07 10:50

Parameter	Qualifier	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Result[1]	Units	Detection Limit	Reporting Limit	Lab ID
Results reported on Wet Weight Basis											
Total Suspended Solids		EPA 160.2	WCGE27235		03/16/07 17:00	TCL	**14**	mg/L	0.7	2.8	E96080
Cadmium		EPA 200.7	META8342	03/26/07 10:09	03/27/07 13:10	DM	**0.00070 U**	mg/L	0.00070	0.0028	E96080
Chromium		EPA 200.7	META8342	03/26/07 10:09	03/27/07 13:10	DM	**0.0018 U**	mg/L	0.0018	0.0072	E96080
Copper		EPA 200.7	META8342	03/26/07 10:09	03/27/07 13:10	DM	**0.0077**	mg/L	0.0014	0.0056	E96080
Zinc		EPA 200.7	META8342	03/26/07 10:09	03/27/07 13:10	DM	**0.038I**	mg/L	0.010	0.040	E96080
Ammonia, as N		EPA 350.1	AUTO15455		03/19/07 14:42	JL	**0.77**	mg/L	0.0090	0.036	E96080
Total Kjeldahl Nitrogen		EPA 351.2	AUTO15469	03/21/07 11:20	03/21/07 17:27	DM	**3.5**	mg/L	0.22	0.88	E96080
Total Nitrogen		EPA 351.2	CALC5363		03/26/07 12:44	DH	**4.2**	mg/L	0.048	0.19	E96080
Nitrate/Nitrite as N		EPA 353.2	AUTO15471		03/23/07 11:30	DM	**0.67**	mg/L	0.0075	0.030	E96080
Orthophosphate as P		EPA 365.1	AUTO15449		03/16/07 12:38	JL	**1.0**	mg/L	0.019	0.076	E96080
Total Phosphorus as P		EPA 365.4	AUTO15466	03/21/07 11:20	03/21/07 17:26	DM	**1.4**	mg/L	0.058	0.23	E96080
Fecal Coliform		SM9221 E	MICR11735		03/16/07 12:30	GS	**160000**	MPN/100mL	2.0	2.0	E96080

Result Qualifiers: U = Not Detected I = Analyte detected between the Laboratory Method Detection Limit and Laboratory Reporting Limit
Applicable Florida Department of Environmental Protection Qualifiers defined below. Statement of Estimated Uncertainty available upon request.

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Chain-of-Custody
and
Agreement to Perform Services

USE BALL POINT PEN
PRESS HARD
COMPLETELY FILL OUT
ALL NON GREYED AREAS
PRINT LEGIBLY

Laboratory not responsible for omitted information

____FDOH # E96080
5600 U.S. 1 North
Fort Pierce, FL 34946

____FDOH # E85370
307 Coolidge Avenue
Lehigh Acres, FL 33936

____FDOH # E83509
4155 St. Johns Pkwy.
Suite 1300
Sanford, FL 32771

____FDOH # E84418
16331 Cortez Blvd.
Brooksville, FL 34601

ACCREDITED IN ACCORDANCE WITH nelac

Company: SUTRON
Address: 6903 VISTA PKWY N. #5
WPB, FL Zip: 33411
Phone: 561 697-8151 Fax: 561-697-8153
Client Contact: Forrest Jay
Project Name: ROCKLEDGE Baffle Box
Sampled By: Joe Stolo

Method(s) of Shipment: Self

e-mail: FJAY@SUTRON.COM

✓ Standard Laboratory Turn Around Time
Or
Rush in ____ Business Days
Requires Laboratory Approval

For Lab Use Only

Temperature Checked	Custody Seals Intact	pH Checked
1.7°C (Y) N	Y N N/A	Y N

LAB # 2027322

PRESERVATIVE							
/	HNO3	H2SO4	NA2S2O3	/			

ANALYSES REQUESTED							
A	B	C	D	E			
TSS	Cd CR CU ZN	NOX TKN NH3 TN TP	FCM EOP CLN AI LF ORM	OPO4			

Preservation Key
H=Hydrochloric Acid
P=Phosphoric Acid
N=Nitric Acid
ST=Sodium Thiosulfate
S=Sulfuric Acid
SH=Sodium Hydroxide
U=Unpreserved

LAB ID	COLLECTION DATE	COLLECTION TIME	Sample Type*	MATRIX**	# Containers	SAMPLE DESCRIPTION As Will Appear On Report	A	B	C	D	E				COMMENTS
001	3-16	0820	G	SW	5	ROCK-UP	1	1	1	1	1				
2	3-16	0850	G	↓	5	ROCK-DN	1	1	1	1	1				

* Sample Type: G=Grab C=Composite
** Matrix: S=Solid SL=Sludge DW=Drinking Water GW=Ground Water SW=Surface Water WW=Wastewater M=Marine

RELINQUISHED BY	RELINQUISHED BY	RELINQUISHED BY
DATE/TIME 3-16-07 / 1050	DATE/TIME	DATE/TIME
RECEIVED BY	RECEIVED BY	RECEIVED FOR HBEL CUSTODY BY [signature]
DATE/TIME	DATE/TIME	DATE/TIME 3-16-07 1050

Report Page 6 of 6

Distribution: WHITE with REPORT; YELLOW for FILE; PINK to CLIENT; GOLD for SAMPLER

CHAIN PAGE 1 of 1

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Received: 3/16/07 10:50

[2027322]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	Method Blank Result	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	Detection Limit	Original Sample
EPA 160.2									
MB	Total Suspended Solids	331766	WCGE27235	Result ***ND***				*0.7 mg/L*	
DUP	Total Suspended Solids	331767	WCGE27235	Precision	**1.6**	0	10		2027247009
LCS	Total Suspended Solids	331768	WCGE27235	Accuracy	**99**	85	115		
EPA 200.7									
MB	Cadmium	332340	META8342	Result ***ND***				*0.00070 mg/L*	
LCS	Cadmium	332341	META8342	Accuracy	**97**	85	115		
MS	Cadmium	332342	META8342	Accuracy	**95**	70	114		2027322001
MSD	Cadmium	332343	META8342	Accuracy	**97**	70	114		2027322001
MSD	Cadmium	332343	META8342	Precision	**2.1**	0	20		2027322001
MB	Chromium	332340	META8342	Result ***ND***				*0.0018 mg/L*	
LCS	Chromium	332341	META8342	Accuracy	**100**	85	115		
MS	Chromium	332342	META8342	Accuracy	**97**	77.3	113		2027322001
MSD	Chromium	332343	META8342	Accuracy	**99**	77.3	113		2027322001
MSD	Chromium	332343	META8342	Precision	**2**	0	20		2027322001
MB	Copper	332340	META8342	Result ***ND***				*0.0014 mg/L*	
LCS	Copper	332341	META8342	Accuracy	**101**	85	115		
MS	Copper	332342	META8342	Accuracy	**100**	80.1	121		2027322001
MSD	Copper	332343	META8342	Accuracy	**102**	80.1	121		2027322001
MSD	Copper	332343	META8342	Precision	**2**	0	20		2027322001
MB	Zinc	332340	META8342	Result ***ND***				*0.010 mg/L*	
LCS	Zinc	332341	META8342	Accuracy	**104**	85	115		
MS	Zinc	332342	META8342	Accuracy	**100**	70	130		2027322001
MSD	Zinc	332343	META8342	Accuracy	**102**	70	130		2027322001
MSD	Zinc	332343	META8342	Precision	**2**	0	20		2027322001
EPA 350.1									
MB	Ammonia, as N	331893	AUTO15455	Result ***ND***				*0.0090 mg/L*	
MS	Ammonia, as N	331894	AUTO15455	Accuracy	**102**	90	110		2305829001
MSD	Ammonia, as N	331895	AUTO15455	Accuracy	**102**	90	110		2305829001
MSD	Ammonia, as N	331895	AUTO15455	Precision	**0**	0	20		2305829001
LCS	Ammonia, as N	331896	AUTO15455	Accuracy	**106**	90	110		
EPA 351.2									
MB	Total Kjeldahl Nitrogen	332144	AUTO15469	Result ***ND***				*0.045 mg/L*	
LCS	Total Kjeldahl Nitrogen	332145	AUTO15469	Accuracy	**97**	90	110		
MS	Total Kjeldahl Nitrogen	332146	AUTO15469	Accuracy	**124**	90	110		2027309002

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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Received: 3/16/07 10:50

[2027322]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MSD	Total Kjeldahl Nitrogen	332147	AUTO15469	Accuracy	**140**	90	110		2027309002
MSD	Total Kjeldahl Nitrogen	332147	AUTO15469	Precision	**12**	0	20		2027309002
EPA 353.2									
MMS	Nitrate/Nitrite as N	332278	AUTO15471	Accuracy	**98**	90	110		2027315001
MMSD	Nitrate/Nitrite as N	332279	AUTO15471	Accuracy	**99**	90	110		2027315001
MMSD	Nitrate/Nitrite as N	332279	AUTO15471	Precision	**1**	0	20		2027315001
EPA 365.1									
MB	Orthophosphate as P	331769	AUTO15449	Result ***ND***				*0.0019 mg/L*	
MS	Orthophosphate as P	331770	AUTO15449	Accuracy	**98**	90	110		2027322001
MSD	Orthophosphate as P	331771	AUTO15449	Accuracy	**99**	90	110		2027322001
MSD	Orthophosphate as P	331771	AUTO15449	Precision	**1**	0	20		2027322001
LCS	Orthophosphate as P	331772	AUTO15449	Accuracy	**96**	90	110		
EPA 365.4									
MB	Total Phosphorus as P	332144	AUTO15466	Result ***ND***				*0.012 mg/L*	
LCS	Total Phosphorus as P	332145	AUTO15466	Accuracy	**104**	72	132		
MS	Total Phosphorus as P	332146	AUTO15466	Accuracy	**108**	72	132		2027309002
MSD	Total Phosphorus as P	332147	AUTO15466	Accuracy	**109**	72	132		2027309002
MSD	Total Phosphorus as P	332147	AUTO15466	Precision	**0.92**	0	20		2027309002
Nitrate/Nitrite									
MB	Nitrate/Nitrite as N	332276	AUTO15471	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	332277	AUTO15471	Accuracy	**85**	90	110		
MS	Nitrate/Nitrite as N	332280	AUTO15471	Accuracy	**106**	90	110		2027322001
MSD	Nitrate/Nitrite as N	332281	AUTO15471	Accuracy	**103**	90	110		2027322001
MSD	Nitrate/Nitrite as N	332281	AUTO15471	Precision	**2.9**	0	20		2027322001
MS	Nitrate/Nitrite as N	332282	AUTO15471	Accuracy	**97**	90	110		2128144004
MSD	Nitrate/Nitrite as N	332283	AUTO15471	Accuracy	**97**	90	110		2128144004
MSD	Nitrate/Nitrite as N	332283	AUTO15471	Precision	**0**	0	20		2128144004
SM9221 E									
MB	Fecal Coliform	332274	MICR11735	Result ***ND***				*2.0 MPN/1*	
LCS	Fecal Coliform	332275	MICR11735	Accuracy	**100**	100	100		

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ENVIRONMENTAL
LABORATORIES, INC.
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April 25, 2007

To: Siaka Kone
SUTRON
6903 Visa Pkwy N #5
West Palm Beach, FL 33411

Client: SUTRON
Workorder ID: Lincoln Baffle Box **[2027537]**
Received: 4/11/07 14:35

Dear Siaka Kone;

Analytical results presented in this report have been reviewed for compliance with the HARBOR BRANCH Environmental Laboratories Inc.'s (HBEL) Quality Systems Manual, and have been determined to meet the standards referenced in the July 2003 National Environmental Laboratory Accreditation Program (NELAP) Quality Manual. The associated Quality Control parameters have been evaluated and meet all Method, Compliance and Standards criteria unless otherwise noted on a Quality Control Summary Page.

FDOH Safe Drinking Water Act, Clean Water Act and RCRA Certification #'s:
E96080, E83509, E85370, E84418
Effective 07/01/06 through 06/30/07

Analytical results herein reflect the values obtained from tests performed on samples as received by the laboratory unless otherwise indicated.

Should you have any questions, please contact HBEL at (772) 465-2400, Ext. 285 and reference the HBEL Workorder ID [Number], or via e-mail at HBEL@HBOI.EDU.

Respectfully submitted,

Cindy Cromer
HBEL, Inc. Director

Don Hash
HBEL, Inc. Project Manager

Eric Charest
HBEL, Inc. Q.A. Manager

HARBOR BRANCH
ENVIRONMENTAL
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Project Summary
Analytical Hits/Method Narratives

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 4/11/07 14:35

[2027537]

Sample Cross Reference Table

HBEL Sample Number:	Client Sample ID
2027537001	Lincoln DN composite
2027537002	Lincoln UP composite

Analytical Hits (If Applicable)

HBEL Sample Number	Sample ID	Parameter	Method	Result	Units
2027537001	Lincoln DN composite				
		Total Suspended Solids	EPA 160.2	**47**	mg/L
		Chromium	EPA 200.7	**0.0034**	mg/L
		Copper	EPA 200.7	**0.019**	mg/L
		Zinc	EPA 200.7	**0.084**	mg/L
		Ammonia, as N	EPA 350.1	**0.17**	mg/L
		Total Kjeldahl Nitrogen	EPA 351.2	**0.82**	mg/L
		Total Nitrogen	EPA 351.2	**1.1**	mg/L
		Nitrate/Nitrite as N	EPA 353.2	**0.25**	mg/L
		Orthophosphate as P	EPA 365.1	**0.036**	mg/L
		Total Phosphorus as P	EPA 365.1	**0.14**	mg/L
		Fecal Coliform	SM9221 E	**1100**	MPN/100mL
2027537002	Lincoln UP composite				
		Total Suspended Solids	EPA 160.2	**51**	mg/L
		Chromium	EPA 200.7	**0.0034**	mg/L
		Copper	EPA 200.7	**0.017**	mg/L
		Zinc	EPA 200.7	**0.082**	mg/L
		Ammonia, as N	EPA 350.1	**0.17**	mg/L
		Total Kjeldahl Nitrogen	EPA 351.2	**0.62**	mg/L
		Total Nitrogen	EPA 351.2	**0.88**	mg/L
		Nitrate/Nitrite as N	EPA 353.2	**0.25**	mg/L
		Orthophosphate as P	EPA 365.1	**0.025**	mg/L
		Total Phosphorus as P	EPA 365.1	**0.13**	mg/L
		Fecal Coliform	SM9221 E	**1700**	MPN/100mL

Method Narratives (If Applicable)

HBEL Sample Number	Sample ID	Analytical Method	Description

Quality Control Summary

Method	HBEL Batch	Analyte	Analytical Issue

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

CERTIFICATE OF ANALYSIS

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Sample ID: Lincoln DN composite
Matrix: Environmental Water

Laboratory ID: **2027537001**
Sampled: 04/10/07 17:44
Received: 04/11/07 14:35

Parameter	Qualifier	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Result[1]	Units	Detection Limit	Reporting Limit	Lab ID
Results reported on Wet Weight Basis											
Total Suspended Solids		EPA 160.2	WCGE27378		04/12/07 17:00	TCL	**47**	mg/L	1.4	5.6	E96080
Cadmium		EPA 200.7	META8374	04/20/07 10:27	04/23/07 15:39	DM	**0.00070 U**	mg/L	0.00070	0.0028	E96080
Chromium		EPA 200.7	META8374	04/20/07 10:27	04/23/07 15:39	DM	**0.0034I**	mg/L	0.0018	0.0072	E96080
Copper		EPA 200.7	META8374	04/20/07 10:27	04/23/07 15:39	DM	**0.019**	mg/L	0.0014	0.0056	E96080
Zinc		EPA 200.7	META8374	04/20/07 10:27	04/23/07 15:39	DM	**0.084**	mg/L	0.010	0.040	E96080
Ammonia, as N		EPA 350.1	AUTO15533		04/16/07 17:15	JL	**0.17**	mg/L	0.0090	0.036	E96080
Total Kjeldahl Nitrogen		EPA 351.2	AUTO15530	04/13/07 9:10	04/13/07 18:08	DM	**0.82**	mg/L	0.045	0.18	E96080
Total Nitrogen		EPA 351.2	CALC5372		04/18/07 9:27	DH	**1.1**	mg/L	0.048	0.19	E96080
Nitrate/Nitrite as N		EPA 353.2	AUTO15537		04/17/07 16:20	DM	**0.25**	mg/L	0.0075	0.030	E96080
Orthophosphate as P		EPA 365.1	AUTO15519		04/12/07 13:48	JL	**0.036**	mg/L	0.0019	0.0076	E96080
Total Phosphorus as P		EPA 365.1	AUTO15557	04/23/07 13:00	04/23/07 19:13	JL	**0.14**	mg/L	0.0012	0.0048	E96080
Fecal Coliform		SM9221 E	MICR11811		04/11/07 16:47	GS	**1100**	MPN/100mL	20	20	E96080

Result Qualifiers: U = Not Detected I = Analyte detected between the Laboratory Method Detection Limit and Laboratory Reporting Limit
Applicable Florida Department of Environmental Protection Qualifiers defined below. Statement of Estimated Uncertainty available upon request.

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

CERTIFICATE OF ANALYSIS

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Sample ID: Lincoln UP composite
Matrix: Environmental Water

Laboratory ID: **2027537002**
Sampled: 04/10/07 17:44
Received: 04/11/07 14:35

Parameter	Qualifier	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Result[1]	Units	Detection Limit	Reporting Limit	Lab ID
Results reported on Wet Weight Basis											
Total Suspended Solids		EPA 160.2	WCGE27378		04/12/07 17:00	TCL	**51**	mg/L	1.4	5.6	E96080
Cadmium		EPA 200.7	META8374	04/20/07 10:27	04/23/07 15:45	DM	**0.00070 U**	mg/L	0.00070	0.0028	E96080
Chromium		EPA 200.7	META8374	04/20/07 10:27	04/23/07 15:45	DM	**0.0034I**	mg/L	0.0018	0.0072	E96080
Copper		EPA 200.7	META8374	04/20/07 10:27	04/23/07 15:45	DM	**0.017**	mg/L	0.0014	0.0056	E96080
Zinc		EPA 200.7	META8374	04/20/07 10:27	04/23/07 15:45	DM	**0.082**	mg/L	0.010	0.040	E96080
Ammonia, as N		EPA 350.1	AUTO15533		04/16/07 17:15	JL	**0.17**	mg/L	0.0090	0.036	E96080
Total Kjeldahl Nitrogen		EPA 351.2	AUTO15530	04/13/07 9:10	04/13/07 18:09	DM	**0.62**	mg/L	0.045	0.18	E96080
Total Nitrogen		EPA 351.2	CALC5372		04/18/07 9:27	DH	**0.88**	mg/L	0.048	0.19	E96080
Nitrate/Nitrite as N		EPA 353.2	AUTO15537		04/17/07 16:21	DM	**0.25**	mg/L	0.0075	0.030	E96080
Orthophosphate as P		EPA 365.1	AUTO15519		04/12/07 13:48	JL	**0.025**	mg/L	0.0019	0.0076	E96080
Total Phosphorus as P		EPA 365.1	AUTO15557	04/23/07 13:00	04/23/07 19:13	JL	**0.13**	mg/L	0.0012	0.0048	E96080
Fecal Coliform		SM9221 E	MICR11811		04/11/07 17:00	GS	**1700**	MPN/100mL	20	20	E96080

Result Qualifiers: U = Not Detected I = Analyte detected between the Laboratory Method Detection Limit and Laboratory Reporting Limit
Applicable Florida Department of Environmental Protection Qualifiers defined below. Statement of Estimated Uncertainty available upon request.

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 US 1 North, Fort Pierce, FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Chain-of-Custody
and
Agreement to Perform Services

USE BALL POINT PEN
PRESS HARD
COMPLETELY FILL OUT
ALL NON GREYED AREAS
PRINT LEGIBLY

Laboratory not responsible for omitted information

____FDOH # E96080
5600 U.S. 1 North
Fort Pierce, FL 34946

____FDOH # E85370
307 Coolidge Avenue
Lehigh Acres, FL 33936

____FDOH # E83509
4155 St. Johns Pkwy.
Suite 1300
Sanford, FL 32771

____FDOH # E84418
16331 Cortez Blvd.
Brooksville, FL 34601

ACCREDITED IN ACCORDANCE WITH nelac

Company: Sutron
Address: 6903 Vista Pky N #5
WPB, FL Zip: 33411
Phone: 561-697-8151 Fax: 561-697-8153
Client Contact: Forrest Jay
Project Name: Lincoln Baffle Box
Sampled By: Joe Stolo

Method(s) of Shipment: Self

e-mail:

✓ Standard Laboratory Turn Around Time

Or

Rush in ____ Business Days
Requires Laboratory Approval

For Lab Use Only

Temperature Checked: (Y) N — 10.3°C
Custody Seals Intact: Y N NA
pH Checked: Y N

LAB # 2027537

PRESERVATIVE								
	HNO3	H2SO4	NaZ S2O3					
1				1				

ANALYSES REQUESTED								
A	B	C	D	E				
TSS	CD, CR, CU ZN	NOX, TKN, NH3 TN, TP	Fecal Coliform	OPO4				

Preservation Key
H=Hydrochloric Acid P=Phosphoric Acid
N=Nitric Acid ST=Sodium Thiosulfate
S=Sulfuric Acid
SH=Sodium Hydroxide U=Unpreserved

LAB ID	COLLECTION DATE	COLLECTION TIME	Sample Type*	MATRIX**	# Containers	SAMPLE DESCRIPTION As Will Appear On Report	TSS	CD, CR, CU ZN	NOX, TKN, NH3 TN, TP	Fecal Coliform	OPO4				COMMENTS
001	4-10	1744	C	SW	5	LINCOLN DN	1	1	1	1	1				
2	↓	↓	↓	↓	↓	LINCOLN UP	1	1	1	1	1				

* Sample Type: G=Grab C=Composite
** Matrix: S=Solid SL=Sludge DW=Drinking Water GW=Ground Water SW=Surface Water WW=Wastewater M=Marine

RELINQUISHED BY Joe Stolo	RELINQUISHED BY	RELINQUISHED BY	
DATE/TIME 4-10-07 1435	DATE/TIME	DATE/TIME	
RECEIVED BY	RECEIVED BY	RECEIVED FOR HBEL CUSTODY BY [signature]	
DATE/TIME	DATE/TIME	DATE/TIME 4/11/07 1435	

Report Page 5 of 5

Distribution: WHITE with REPORT; YELLOW for FILE; PINK to CLIENT; GOLD for SAMPLER

CHAIN PAGE 1 of 1

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ENVIRONMENTAL
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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 4/11/07 14:35

[2027537]

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	Method Blank Result	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	Detection Limit	Original Sample
MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate									
EPA 160.2									
MB	Total Suspended Solids	333593	WCGE27378	Result ND				0.7 mg/L	
DUP	Total Suspended Solids	333594	WCGE27378	Precision	1.7	0	10		2027494005
LCS	Total Suspended Solids	333595	WCGE27378	Accuracy	105	85	115		
DUP	Total Suspended Solids	333596	WCGE27378	Precision	2.4	0	10		2027494007
EPA 200.7									
MB	Cadmium	334354	META8374	Result ND				0.00070 mg/L	
LCS	Cadmium	334355	META8374	Accuracy	99	85	115		
MS	Cadmium	334356	META8374	Accuracy	97	70	114		2027577001
MSD	Cadmium	334357	META8374	Accuracy	96	70	114		2027577001
MSD	Cadmium	334357	META8374	Precision	1	0	20		2027577001
MS	Cadmium	334358	META8374	Accuracy	97	70	114		2128401001
MB	Chromium	334354	META8374	Result ND				0.0018 mg/L	
LCS	Chromium	334355	META8374	Accuracy	101	85	115		
MS	Chromium	334356	META8374	Accuracy	97	77.3	113		2027577001
MSD	Chromium	334357	META8374	Accuracy	96	77.3	113		2027577001
MSD	Chromium	334357	META8374	Precision	1	0	20		2027577001
MS	Chromium	334358	META8374	Accuracy	99	77.3	113		2128401001
MB	Copper	334354	META8374	Result ND				0.0014 mg/L	
LCS	Copper	334355	META8374	Accuracy	105	85	115		
MS	Copper	334356	META8374	Accuracy	102	80.1	121		2027577001
MSD	Copper	334357	META8374	Accuracy	101	80.1	121		2027577001
MSD	Copper	334357	META8374	Precision	0.99	0	20		2027577001
MS	Copper	334358	META8374	Accuracy	100	80.1	121		2128401001
MB	Zinc	334354	META8374	Result ND				0.010 mg/L	
LCS	Zinc	334355	META8374	Accuracy	104	85	115		
MS	Zinc	334356	META8374	Accuracy	101	70	130		2027577001
MSD	Zinc	334357	META8374	Accuracy	100	70	130		2027577001
MSD	Zinc	334357	META8374	Precision	1	0	20		2027577001
MS	Zinc	334358	META8374	Accuracy	99	70	130		2128401001
EPA 350.1									
MB	Ammonia, as N	333907	AUTO15533	Result ND				0.0090 mg/L	
MS	Ammonia, as N	333908	AUTO15533	Accuracy	102	90	110		2305877002
MSD	Ammonia, as N	333909	AUTO15533	Accuracy	101	90	110		2305877002
MSD	Ammonia, as N	333909	AUTO15533	Precision	0.99	0	20		2305877002
LCS	Ammonia, as N	333910	AUTO15533	Accuracy	102	90	110		

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Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 4/11/07 14:35

[2027537]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MS	Ammonia, as N	333911	AUTO15533	Accuracy	**103**	90	110		2305878002
MSD	Ammonia, as N	333912	AUTO15533	Accuracy	**103**	90	110		2305878002
MSD	Ammonia, as N	333912	AUTO15533	Precision	**0**	0	20		2305878002
EPA 351.2									
MB	Total Kjeldahl Nitrogen	333603	AUTO15530	Result ***ND***				*0.045 mg/L*	
LCS	Total Kjeldahl Nitrogen	333604	AUTO15530	Accuracy	**100**	90	110		
MS	Total Kjeldahl Nitrogen	333605	AUTO15530	Accuracy	**8.3**	90	110		2027524001
MSD	Total Kjeldahl Nitrogen	333606	AUTO15530	Accuracy	**-2.6**	90	110		2027524001
MSD	Total Kjeldahl Nitrogen	333606	AUTO15530	Precision	**382**	0	20		2027524001
EPA 353.2									
MMS	Nitrate/Nitrite as N	334032	AUTO15537	Accuracy	**91**	90	110		2027477002
MMSD	Nitrate/Nitrite as N	334033	AUTO15537	Accuracy	**95**	90	110		2027477002
MMSD	Nitrate/Nitrite as N	334033	AUTO15537	Precision	**4.3**	0	20		2027477002
EPA 365.1									
MB	Orthophosphate as P	333607	AUTO15519	Result ***ND***				*0.0019 mg/L*	
MS	Orthophosphate as P	333608	AUTO15519	Accuracy	**94**	90	110		2027537001
MSD	Orthophosphate as P	333609	AUTO15519	Accuracy	**93**	90	110		2027537001
MSD	Orthophosphate as P	333609	AUTO15519	Precision	**1.1**	0	20		2027537001
LCS	Orthophosphate as P	333610	AUTO15519	Accuracy	**97**	90	110		
Nitrate/Nitrite									
MB	Nitrate/Nitrite as N	334024	AUTO15537	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	334025	AUTO15537	Accuracy	**90**	90	110		
MB	Nitrate/Nitrite as N	334026	AUTO15537	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	334027	AUTO15537	Accuracy	**99**	90	110		
MB	Nitrate/Nitrite as N	334028	AUTO15537	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	334029	AUTO15537	Accuracy	**102**	90	110		
MS	Nitrate/Nitrite as N	334034	AUTO15537	Accuracy	**102**	90	110		2027471002
MSD	Nitrate/Nitrite as N	334035	AUTO15537	Accuracy	**100**	90	110		2027471002
MSD	Nitrate/Nitrite as N	334035	AUTO15537	Precision	**2**	0	20		2027471002
MS	Nitrate/Nitrite as N	334036	AUTO15537	Accuracy	**97**	90	110		2027490001
MSD	Nitrate/Nitrite as N	334037	AUTO15537	Accuracy	**98**	90	110		2027490001
MSD	Nitrate/Nitrite as N	334037	AUTO15537	Precision	**1**	0	20		2027490001
MS	Nitrate/Nitrite as N	334038	AUTO15537	Accuracy	**76**	90	110		2027585002
MSD	Nitrate/Nitrite as N	334039	AUTO15537	Accuracy	**78**	90	110		2027585002
MSD	Nitrate/Nitrite as N	334039	AUTO15537	Precision	**2.6**	0	20		2027585002

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Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 4/11/07 14:35

[2027537]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MS	Nitrate/Nitrite as N	334040	AUTO15537	Accuracy	**88**	90	110		2027531001
MSD	Nitrate/Nitrite as N	334041	AUTO15537	Accuracy	**89**	90	110		2027531001
MSD	Nitrate/Nitrite as N	334041	AUTO15537	Precision	**1.1**	0	20		2027531001
SM9221 E									
MB	Fecal Coliform	334346	MICR11811	Result ***ND***				*2.0 MPN/1*	
LCS	Fecal Coliform	334347	MICR11811	Accuracy	**100**	100	100		
TP QC (Persulfate Digestion)									
MB	Total Phosphorus as P	334499	AUTO15557	Result ***ND***				*0.0012 mg/L*	
LCS	Total Phosphorus as P	334500	AUTO15557	Accuracy	**110**	90	110		
MS	Total Phosphorus as P	334501	AUTO15557	Accuracy	**96**	90	110		2027530001
MSD	Total Phosphorus as P	334502	AUTO15557	Accuracy	**98**	90	110		2027530001
MSD	Total Phosphorus as P	334502	AUTO15557	Precision	**2.1**	0	20		2027530001

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LABORATORIES, INC.
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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Date issued: May 30, 2007

To: Siaka Kone
SUTRON
6903 Visa Pkwy N #5
West Palm Beach, FL 33411

Client: SUTRON
Workorder ID: Lincoln Baffle Box **[2027805]**
Received: 5/14/07 13:30

Dear Siaka Kone;

Analytical results presented in this report have been reviewed for compliance with the HARBOR BRANCH Environmental Laboratories Inc.'s (HBEL) Quality Systems Manual and have been determined to meet applicable Method guidelines and Standards referenced in the July 2003 National Environmental Laboratory Accreditation Program (NELAP) Quality Manual unless otherwise noted. The Analytical Results within these report pages reflect the values obtained from tests performed on Samples As Received by the laboratory unless indicated differently.

FDOH Safe Drinking Water Act, Clean Water Act and RCRA Certification #'s:

E96080, E83509, E85370, E84418

Questions regarding this report should be directed to the Report Signatory at (772) 465-2400, Ext. 285 referencing the HBEL Workorder ID [Number].

Respectfully submitted,

Cindy Cromer
Technical Director or Designee

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Summary

Client: SUTRON
Workorder ID: Lincoln Baffle Box **[2027805]**
Received: 5/14/07 13:30

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate

Method Narratives (If Applicable)

HBEL Sample Number	Sample ID	Analytical Method	Description

Quality Control Summary

Method	HBEL Batch	Analyte	Analytical Issue

HARBOR BRANCH
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CERTIFICATE OF ANALYSIS

[2027805]

Client: SUTRON *Workorder ID:* Lincoln Baffle Box

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Laboratory ID: ***2027805001*** *Sample ID:* ***Lincoln DN Event composite***							*Sampled: 05/13/07 21:26* *Received: 05/14/07 13:30* *Matrix: Water* Results reported on Wet Weight Basis				
Total Suspended Solids		**62**	mg/L	1.7	6.8	EPA 160.2	WCGE27574		05/15/07 17:00	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8408	05/16/07 9:07	05/18/07 16:05	DM	E96080
Chromium		**0.0049 I**	mg/L	0.0018	0.0072	EPA 200.7	META8408	05/16/07 9:07	05/18/07 16:05	DM	E96080
Copper		**0.021**	mg/L	0.0014	0.0056	EPA 200.7	META8408	05/16/07 9:07	05/18/07 16:05	DM	E96080
Zinc		**0.11**	mg/L	0.010	0.040	EPA 200.7	META8408	05/16/07 9:07	05/18/07 16:05	DM	E96080
Ammonia, as N		**0.20**	mg/L	0.0090	0.036	EPA 350.1	AUTO15615		05/17/07 18:29	JL	E96080
Total Kjeldahl Nitrogen		**1.3**	mg/L	0.045	0.18	EPA 351.2	AUTO15625	05/16/07 9:40	05/16/07 18:08	DM	E96080
Total Nitrogen		**1.7**	mg/L	0.048	0.19	EPA 351.2	CALC5399		05/30/07 8:40	DH	E96080
Nitrate/Nitrite as N		**0.45**	mg/L	0.0075	0.030	EPA 353.2	AUTO15655		05/29/07 13:49	DM	E96080
Orthophosphate as P		**0.058**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15609		05/15/07 10:57	JL	E96080
Total Phosphorus as P		**0.22**	mg/L	0.0012	0.0048	EPA 365.1	AUTO15653	05/23/07 11:00	05/23/07 13:49	JL	E96080
Fecal Coliform	B	**100 I**	CFU/100mL	100	100	SM9222 D	MICR11875		05/14/07 15:25	TR	E96080
Laboratory ID: ***2027805002*** *Sample ID:* ***Lincoln UP Event composite***							*Sampled: 05/13/07 22:18* *Received: 05/14/07 13:30* *Matrix: Water* Results reported on Wet Weight Basis				
Total Suspended Solids		**68**	mg/L	1.7	6.8	EPA 160.2	WCGE27574		05/15/07 17:00	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8408	05/16/07 9:07	05/18/07 16:11	DM	E96080
Chromium		**0.0028 I**	mg/L	0.0018	0.0072	EPA 200.7	META8408	05/16/07 9:07	05/18/07 16:11	DM	E96080
Copper		**0.016**	mg/L	0.0014	0.0056	EPA 200.7	META8408	05/16/07 9:07	05/18/07 16:11	DM	E96080
Zinc		**0.086**	mg/L	0.010	0.040	EPA 200.7	META8408	05/16/07 9:07	05/18/07 16:11	DM	E96080
Ammonia, as N		**0.14**	mg/L	0.0090	0.036	EPA 350.1	AUTO15615		05/17/07 18:29	JL	E96080
Total Kjeldahl Nitrogen		**1.2**	mg/L	0.045	0.18	EPA 351.2	AUTO15625	05/16/07 9:40	05/16/07 18:09	DM	E96080
Total Nitrogen		**1.5**	mg/L	0.048	0.19	EPA 351.2	CALC5399		05/30/07 8:41	DH	E96080
Nitrate/Nitrite as N		**0.32**	mg/L	0.0075	0.030	EPA 353.2	AUTO15655		05/29/07 13:50	DM	E96080
Orthophosphate as P		**0.054**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15609		05/15/07 10:57	JL	E96080
Total Phosphorus as P		**0.20**	mg/L	0.0012	0.0048	EPA 365.1	AUTO15653	05/23/07 11:00	05/23/07 13:49	JL	E96080
Fecal Coliform	B	**100 I**	CFU/100mL	100	100	SM9222 D	MICR11875		05/14/07 15:25	TR	E96080

[1]Result Qualifiers: U = Not Detected I = Analyte detected between the Laboratory Method Detection Limit and Laboratory Reporting Limit
Applicable Florida Department of Environmental Protection Qualifiers defined below. Statement of Estimated Uncertainty available upon request.

B Results based upon colony counts outside of the acceptable range.

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 US 1 North, Fort Pierce, FL 34946
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Chain-of-Custody

and

Agreement to Perform Services

USE BALL POINT PEN
PRESS HARD
COMPLETELY FILL OUT
ALL NON GREYED AREAS
PRINT LEGIBLY

Laboratory not responsible for omitted information

____FDOH # E96080
5600 U.S. 1 North
Fort Pierce, FL 34946

____FDOH # E85370
307 Coolidge Avenue
Lehigh Acres, FL 33936

____FDOH # E83509
4155 St. Johns Pkwy.
Suite 1300
Sanford, FL 32771

____FDOH # E84418
16331 Cortez Blvd.
Brooksville, FL 34601

ACCREDITED IN ACCORDANCE WITH nelac

Company: Sutron

Address: 6903 Vista Parkway N Suite 5

West Palm Beach, FL Zip: 33411

Phone: (561) 262-6146 Fax:

Client Contact: Forrest Jay

Project Name: Lincoln Baffle Box

Sampled By: Manuel Sendon

Method(s) of Shipment: Self

e-mail:

✓ Standard Laboratory Turn Around Time

Or

Rush in ____ Business Days

Requires Laboratory Approval

For Lab Use Only

Temperature Checked: 4.1°C (Y) N

Custody Seals Intact: Y N

pH Checked: Y N

LAB # 2027305

PRESERVATIVE								
1	HNO3	H2SO4	NH2 S2O3	1				

ANALYSES REQUESTED								
A	B	C	D	E				
TSS	CD CR CU ZN	NOX TKN NH3 TN TP	Fecal Coliform	OPO4				

Preservation Key

H=Hydrochloric Acid
P=Phosphoric Acid
N=Nitric Acid
ST=Sodium Thiosulfate
S=Sulfuric Acid
SH=Sodium Hydroxide
U=Unpreserved

LAB ID	COLLECTION DATE	COLLECTION TIME	Sample Type*	MATRIX**	# Containers	SAMPLE DESCRIPTION As Will Appear On Report	TSS	CD CR CU ZN	NOX TKN NH3 TN TP	Fecal Coliform	OPO4				COMMENTS
001	5/13/07	2126	C		5	Lincoln (DN) Event	1	1	1	1	1				
2	5/13/07	2218	C		5	Lincoln (UP) Event	1	1	1	1	1				

* Sample Type: G=Grab C=Composite

** Matrix: S=Solid SL=Sludge DW=Drinking Water GW=Ground Water SW=Surface Water WW=Wastewater M=Marine

RELINQUISHED BY: Manuel Sendon	RELINQUISHED BY	RELINQUISHED BY	
DATE/TIME: 5/14/07 1330	DATE/TIME	DATE/TIME	
RECEIVED BY	RECEIVED BY	RECEIVED FOR HBEL CUSTODY BY	
DATE/TIME	DATE/TIME	DATE/TIME: 05/14/07 1330	

Report Page 4 of 4

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CHAIN PAGE ____ of ____

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Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 5/14/07 13:30

[2027805]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number		*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
EPA 160.2										
MB	Total Suspended Solids	336205	WCGE27574	Result	***ND***				*0.7 mg/L*	
DUP	Total Suspended Solids	336206	WCGE27574	Precision		**2.1**	0	10		2027805001
LCS	Total Suspended Solids	336207	WCGE27574	Accuracy		**101**	85	115		
DUP	Total Suspended Solids	336208	WCGE27574	Precision		**2.2**	0	10		2027805002
EPA 200.7										
MB	Cadmium	336258	META8408	Result	***ND***				*0.00070 mg/L*	
LCS	Cadmium	336259	META8408	Accuracy		**99**	85	115		
MS	Cadmium	336260	META8408	Accuracy		**97**	70	114		2407532004
MSD	Cadmium	336261	META8408	Accuracy		**97**	70	114		2407532004
MSD	Cadmium	336261	META8408	Precision		**0**	0	20		2407532004
MB	Chromium	336258	META8408	Result	***ND***				*0.0018 mg/L*	
LCS	Chromium	336259	META8408	Accuracy		**102**	85	115		
MS	Chromium	336260	META8408	Accuracy		**101**	77.3	113		2407532004
MSD	Chromium	336261	META8408	Accuracy		**100**	77.3	113		2407532004
MSD	Chromium	336261	META8408	Precision		**1**	0	20		2407532004
MB	Copper	336258	META8408	Result	***ND***				*0.0014 mg/L*	
LCS	Copper	336259	META8408	Accuracy		**101**	85	115		
MS	Copper	336260	META8408	Accuracy		**102**	80.1	121		2407532004
MSD	Copper	336261	META8408	Accuracy		**101**	80.1	121		2407532004
MSD	Copper	336261	META8408	Precision		**0.99**	0	20		2407532004
MB	Zinc	336258	META8408	Result	***ND***				*0.010 mg/L*	
LCS	Zinc	336259	META8408	Accuracy		**105**	85	115		
MS	Zinc	336260	META8408	Accuracy		**103**	70	130		2407532004
MSD	Zinc	336261	META8408	Accuracy		**103**	70	130		2407532004
MSD	Zinc	336261	META8408	Precision		**0**	0	20		2407532004
EPA 350.1										
MB	Ammonia, as N	336415	AUTO15615	Result	***ND***				*0.0090 mg/L*	
MS	Ammonia, as N	336416	AUTO15615	Accuracy		**99**	90	110		2305931001
MSD	Ammonia, as N	336417	AUTO15615	Accuracy		**99**	90	110		2305931001
MSD	Ammonia, as N	336417	AUTO15615	Precision		**0**	0	20		2305931001
LCS	Ammonia, as N	336418	AUTO15615	Accuracy		**97**	90	110		
MS	Ammonia, as N	336419	AUTO15615	Accuracy		**97**	90	110		2305942001
MSD	Ammonia, as N	336420	AUTO15615	Accuracy		**97**	90	110		2305942001
MSD	Ammonia, as N	336420	AUTO15615	Precision		**0**	0	20		2305942001

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 5/14/07 13:30

[2027805]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
EPA 351.2									
MB	Total Kjeldahl Nitrogen	336246	AUTO15625	Result ***ND***				*0.045 mg/L*	
LCS	Total Kjeldahl Nitrogen	336247	AUTO15625	Accuracy	**101**	90	110		
MS	Total Kjeldahl Nitrogen	336248	AUTO15625	Accuracy	**107**	90	110		2027798001
MSD	Total Kjeldahl Nitrogen	336249	AUTO15625	Accuracy	**115**	90	110		2027798001
MSD	Total Kjeldahl Nitrogen	336249	AUTO15625	Precision	**7.2**	0	20		2027798001
EPA 353.2									
MMS	Nitrate/Nitrite as N	337139	AUTO15655	Accuracy	**101**	90	110		2027851002
MMSD	Nitrate/Nitrite as N	337140	AUTO15655	Accuracy	**100**	90	110		2027851002
MMSD	Nitrate/Nitrite as N	337140	AUTO15655	Precision	**1**	0	20		2027851002
EPA 365.1									
MB	Orthophosphate as P	336201	AUTO15609	Result ***ND***				*0.0019 mg/L*	
MS	Orthophosphate as P	336202	AUTO15609	Accuracy	**96**	90	110		2027805001
MSD	Orthophosphate as P	336203	AUTO15609	Accuracy	**96**	90	110		2027805001
MSD	Orthophosphate as P	336203	AUTO15609	Precision	**0**	0	20		2027805001
LCS	Orthophosphate as P	336204	AUTO15609	Accuracy	**101**	90	110		
Nitrate/Nitrite									
MB	Nitrate/Nitrite as N	337133	AUTO15655	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	337134	AUTO15655	Accuracy	**101**	90	110		
MB	Nitrate/Nitrite as N	337135	AUTO15655	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	337136	AUTO15655	Accuracy	**96**	90	110		
MS	Nitrate/Nitrite as N	337141	AUTO15655	Accuracy	**104**	90	110		2027805002
MSD	Nitrate/Nitrite as N	337142	AUTO15655	Accuracy	**101**	90	110		2027805002
MSD	Nitrate/Nitrite as N	337142	AUTO15655	Precision	**2.9**	0	20		2027805002
MS	Nitrate/Nitrite as N	337143	AUTO15655	Accuracy	**99**	90	110		2128721001
MSD	Nitrate/Nitrite as N	337144	AUTO15655	Accuracy	**100**	90	110		2128721001
MSD	Nitrate/Nitrite as N	337144	AUTO15655	Precision	**1**	0	20		2128721001
MS	Nitrate/Nitrite as N	337145	AUTO15655	Accuracy	**98**	90	110		2027932002
MSD	Nitrate/Nitrite as N	337146	AUTO15655	Accuracy	**100**	90	110		2027932002
MSD	Nitrate/Nitrite as N	337146	AUTO15655	Precision	**2**	0	20		2027932002
SM9222 D									
MB	Fecal Coliform	336272	MICR11875	Result ***ND***				*1.0 CFU/1*	
MB	Fecal Coliform	336273	MICR11875	Result ***ND***				*1.0 CFU/1*	
MB	Fecal Coliform	336274	MICR11875	Result ***ND***				*1.0 CFU/1*	
LCS	Fecal Coliform	336275	MICR11875	Accuracy	**100**	1	2000		

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Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 5/14/07 13:30

[2027805]

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number		*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate										
MB	Fecal Coliform	336276	MICR11875	Result	***ND***				*1.0 CFU/1*	
MB	Fecal Coliform	336277	MICR11875	Result	***ND***				*1.0 CFU/1*	
TP QC (Persulfate Digestion)										
MB	Total Phosphorus as P	336820	AUTO15653	Result	***ND***				*0.0012 mg/L*	
LCS	Total Phosphorus as P	336821	AUTO15653	Accuracy		**105**	90	110		
MS	Total Phosphorus as P	336822	AUTO15653	Accuracy		**99**	90	110		2027805001
MSD	Total Phosphorus as P	336823	AUTO15653	Accuracy		**98**	90	110		2027805001
MSD	Total Phosphorus as P	336823	AUTO15653	Precision		**1**	0	20		2027805001
MS	Total Phosphorus as P	336824	AUTO15653	Accuracy		**105**	90	110		2128696005
MSD	Total Phosphorus as P	336825	AUTO15653	Accuracy		**101**	90	110		2128696005
MSD	Total Phosphorus as P	336825	AUTO15653	Precision		**3.9**	0	20		2128696005

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LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Date issued: May 30, 2007

To: Siaka Kone
SUTRON
6903 Visa Pkwy N #5
West Palm Beach, FL 33411

Client: SUTRON
Workorder ID: Lincoln Baffle Box **[2027813]**
Received: 5/15/07 13:00

Dear Siaka Kone;

Analytical results presented in this report have been reviewed for compliance with the HARBOR BRANCH Environmental Laboratories Inc.'s (HBEL) Quality Systems Manual and have been determined to meet applicable Method guidelines and Standards referenced in the July 2003 National Environmental Laboratory Accreditation Program (NELAP) Quality Manual unless otherwise noted. The Analytical Results within these report pages reflect the values obtained from tests performed on Samples As Received by the laboratory unless indicated differently.

FDOH Safe Drinking Water Act, Clean Water Act and RCRA Certification #'s:

E96080, E83509, E85370, E84418

Questions regarding this report should be directed to the Report Signatory at (772) 465-2400, Ext. 285 referencing the HBEL Workorder ID [Number].

Respectfully submitted,

Cindy Cromer
Technical Director or Designee

HARBOR BRANCH
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5600 U.S. 1 North, Fort Pierce FL 34946
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Quality Control Summary

Client: SUTRON
Workorder ID: Lincoln Baffle Box **[2027813]**
Received: 5/15/07 13:00

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate

Method Narratives (If Applicable)

HBEL Sample Number	Sample ID	Analytical Method	Description

Quality Control Summary

Method	HBEL Batch	Analyte	Analytical Issue

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CERTIFICATE OF ANALYSIS

[2027813]

Client: SUTRON *Workorder ID:* Lincoln Baffle Box

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Laboratory ID: ***2027813001*** *Sample ID:* ***Lincoln Down #3 composite***						*Sampled: 05/14/07 22:25* *Received: 05/15/07 13:00* *Matrix: Water* Results reported on Wet Weight Basis					
Total Suspended Solids		**26**	mg/L	0.7	2.8	EPA 160.2	WCGE27574		05/15/07 17:00	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8408	05/16/07 9:07	05/18/07 16:36	DM	E96080
Chromium		**0.0029 I**	mg/L	0.0018	0.0072	EPA 200.7	META8408	05/16/07 9:07	05/18/07 16:36	DM	E96080
Copper		**0.013**	mg/L	0.0014	0.0056	EPA 200.7	META8408	05/16/07 9:07	05/18/07 16:36	DM	E96080
Zinc		**0.075**	mg/L	0.010	0.040	EPA 200.7	META8408	05/16/07 9:07	05/18/07 16:36	DM	E96080
Ammonia, as N		**0.035 I**	mg/L	0.0090	0.036	EPA 350.1	AUTO15615		05/17/07 18:29	JL	E96080
Total Kjeldahl Nitrogen		**0.55**	mg/L	0.045	0.18	EPA 351.2	AUTO15625	05/16/07 9:40	05/16/07 18:11	DM	E96080
Total Nitrogen		**1.0**	mg/L	0.048	0.19	EPA 351.2	CALC5399			DH	E96080
Nitrate/Nitrite as N		**0.44**	mg/L	0.0075	0.030	EPA 353.2	AUTO15655		05/29/07 13:51	DM	E96080
Orthophosphate as P		**0.022**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15613		05/16/07 9:27	JL	E96080
Total Phosphorus as P		**0.12**	mg/L	0.0012	0.0048	EPA 365.1	AUTO15653	05/23/07 11:00	05/23/07 13:49	JL	E96080
Fecal Coliform	B	**1000 I**	CFU/100mL	1000	1,000	SM9222 D	MICR11878		05/15/07 15:05	TR	E96080
Laboratory ID: ***2027813002*** *Sample ID:* ***Lincoln Up #3 composite***						*Sampled: 05/14/07 22:25* *Received: 05/15/07 13:00* *Matrix: Water* Results reported on Wet Weight Basis					
Total Suspended Solids		**57**	mg/L	0.7	2.8	EPA 160.2	WCGE27574		05/15/07 17:00	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8415	05/23/07 9:57	05/24/07 15:43	DM	E96080
Chromium		**0.0021 I**	mg/L	0.0018	0.0072	EPA 200.7	META8415	05/23/07 9:57	05/24/07 15:43	DM	E96080
Copper		**0.013**	mg/L	0.0014	0.0056	EPA 200.7	META8415	05/23/07 9:57	05/24/07 15:43	DM	E96080
Zinc		**0.19**	mg/L	0.010	0.040	EPA 200.7	META8415	05/23/07 9:57	05/24/07 15:43	DM	E96080
Ammonia, as N		**0.058**	mg/L	0.0090	0.036	EPA 350.1	AUTO15615		05/17/07 18:29	JL	E96080
Total Kjeldahl Nitrogen		**0.62**	mg/L	0.045	0.18	EPA 351.2	AUTO15625	05/16/07 9:40	05/16/07 18:11	DM	E96080
Total Nitrogen		**0.72**	mg/L	0.048	0.19	EPA 351.2	CALC5399			DH	E96080
Nitrate/Nitrite as N		**0.093**	mg/L	0.0075	0.030	EPA 353.2	AUTO15655		05/29/07 13:51	DM	E96080
Orthophosphate as P		**0.022**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15613		05/16/07 9:27	JL	E96080
Total Phosphorus as P		**0.12**	mg/L	0.0012	0.0048	EPA 365.1	AUTO15653	05/23/07 11:00	05/23/07 13:49	JL	E96080
Fecal Coliform	B	**2000**	CFU/100mL.	1000	1,000	SM9222 D	MICR11878		05/15/07 15:05	TR	E96080

[1]Result Qualifiers: U = Not Detected I = Analyte detected between the Laboratory Method Detection Limit and Laboratory Reporting Limit
Applicable Florida Department of Environmental Protection Qualifiers defined below. Statement of Estimated Uncertainty available upon request.

B Results based upon colony counts outside of the acceptable range.

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 US 1 North, Fort Pierce, FL 34946
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Chain-of-Custody
and
Agreement to Perform Services

USE BALL POINT PEN
PRESS HARD
COMPLETELY FILL OUT
ALL NON GREYED AREAS
PRINT LEGIBLY

Laboratory not responsible for omitted information

____FDOH # E96080
5600 U.S. 1 North
Fort Pierce, FL 34946

____FDOH # E85370
307 Coolidge Avenue
Lehigh Acres, FL 33936

____FDOH # E83509
4155 St. Johns Pkwy.
Suite 1300
Sanford, FL 32771

____FDOH # E84418
16331 Cortez Blvd.
Brooksville, FL 34601

ACCREDITED IN ACCORDANCE WITH nelac

Company: Sutron
Address: 6903 Vista Parkway North Suite #5
WPB, FL Zip: 33411
Phone: 561 697 8151 Fax:
Client Contact: Forrest Jay
Project Name: Baffle Box - Lincoln
Sampled By: Forrest Jay

Method(s) of Shipment: Self

e-mail: fjay@sutron.com

X Standard Laboratory Turn Around Time
Or
Rush in ____ Business Days
Requires Laboratory Approval

For Lab Use Only

Temperature Checked: Y N (-1.4°C)
Custody Seals Intact: Y N
pH Checked: Y N

LAB # 2007813

PRESERVATIVE							
/	NaOH 5203	HNO3	H2SO4	/			

ANALYSES REQUESTED							
A	B	C	D	E			

Preservation Key
H=Hydrochloric Acid P=Phosphoric Acid
N=Nitric Acid ST=Sodium Thiosulfate
S=Sulfuric Acid
SH=Sodium Hydroxide U=Unpreserved

LAB ID	COLLECTION DATE	COLLECTION TIME	Sample Type*	MATRIX**	# Containers	SAMPLE DESCRIPTION As Will Appear On Report	TSS	FC	Cd, Cu Cr, Zn	NO2, TKN TN, TP, NH3	OPO4				COMMENTS
001	5/14/07	22:25	C	SW	5	Lincoln Down #3	1	1	1	1	1				
2	5/14/07	22:25	C	SW	5	Lincoln Up #3	1	1	1	1	1				

* Sample Type: G=Grab C=Composite
** Matrix: S=Solid SL=Sludge DW=Drinking Water GW=Ground Water SW=Surface Water WW=Wastewater M=Marine

RELINQUISHED BY	RELINQUISHED BY	RELINQUISHED BY
DATE/TIME 5/15/07 13:00	DATE/TIME	DATE/TIME
RECEIVED BY	RECEIVED BY	RECEIVED FOR HBEL CUSTODY BY
DATE/TIME	DATE/TIME	DATE/TIME 5/15/07 1300

Report Page 4 of 4

Distribution: WHITE with REPORT; YELLOW for FILE; PINK to CLIENT; GOLD for SAMPLER

CHAIN PAGE 1 of 1

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 5/15/07 13:00

[2027813]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
EPA 160.2									
MB	Total Suspended Solids	336205	WCGE27574	Result ***ND***				*0.7 mg/L*	
DUP	Total Suspended Solids	336206	WCGE27574	Precision	**2.1**	0	10		2027805001
LCS	Total Suspended Solids	336207	WCGE27574	Accuracy	**101**	85	115		
DUP	Total Suspended Solids	336208	WCGE27574	Precision	**2.2**	0	10		2027805002
EPA 200.7									
MB	Cadmium	336258	META8408	Result ***ND***				*0.00070 mg/L*	
LCS	Cadmium	336259	META8408	Accuracy	**99**	85	115		
MS	Cadmium	336260	META8408	Accuracy	**97**	70	114		2407532004
MSD	Cadmium	336261	META8408	Accuracy	**97**	70	114		2407532004
MSD	Cadmium	336261	META8408	Precision	**0**	0	20		2407532004
MB	Chromium	336258	META8408	Result ***ND***				*0.0018 mg/L*	
LCS	Chromium	336259	META8408	Accuracy	**102**	85	115		
MS	Chromium	336260	META8408	Accuracy	**101**	77.3	113		2407532004
MSD	Chromium	336261	META8408	Accuracy	**100**	77.3	113		2407532004
MSD	Chromium	336261	META8408	Precision	**1**	0	20		2407532004
MB	Copper	336258	META8408	Result ***ND***				*0.0014 mg/L*	
LCS	Copper	336259	META8408	Accuracy	**101**	85	115		
MS	Copper	336260	META8408	Accuracy	**102**	80.1	121		2407532004
MSD	Copper	336261	META8408	Accuracy	**101**	80.1	121		2407532004
MSD	Copper	336261	META8408	Precision	**0.99**	0	20		2407532004
MB	Zinc	336258	META8408	Result ***ND***				*0.010 mg/L*	
LCS	Zinc	336259	META8408	Accuracy	**105**	85	115		
MS	Zinc	336260	META8408	Accuracy	**103**	70	130		2407532004
MSD	Zinc	336261	META8408	Accuracy	**103**	70	130		2407532004
MSD	Zinc	336261	META8408	Precision	**0**	0	20		2407532004
MB	Cadmium	336692	META8415	Result ***ND***				*0.00070 mg/L*	
LCS	Cadmium	336693	META8415	Accuracy	**97**	85	115		
MS	Cadmium	336694	META8415	Accuracy	**99**	70	114		2027869001
MSD	Cadmium	336695	META8415	Accuracy	**97**	70	114		2027869001
MSD	Cadmium	336695	META8415	Precision	**2**	0	20		2027869001
MB	Chromium	336692	META8415	Result ***ND***				*0.0018 mg/L*	
LCS	Chromium	336693	META8415	Accuracy	**99**	85	115		
MS	Chromium	336694	META8415	Accuracy	**101**	77.3	113		2027869001
MSD	Chromium	336695	META8415	Accuracy	**99**	77.3	113		2027869001
MSD	Chromium	336695	META8415	Precision	**2**	0	20		2027869001

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Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 5/15/07 13:00

[2027813]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number		*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MB	Copper	336692	META8415	Result	***ND***				*0.0014 mg/L*	
LCS	Copper	336693	META8415	Accuracy		**99**	85	115		
MS	Copper	336694	META8415	Accuracy		**100**	80.1	121		2027869001
MSD	Copper	336695	META8415	Accuracy		**99**	80.1	121		2027869001
MSD	Copper	336695	META8415	Precision		**1**	0	20		2027869001
MB	Zinc	336692	META8415	Result	***ND***				*0.010 mg/L*	
LCS	Zinc	336693	META8415	Accuracy		**101**	85	115		
MS	Zinc	336694	META8415	Accuracy		**103**	70	130		2027869001
MSD	Zinc	336695	META8415	Accuracy		**102**	70	130		2027869001
MSD	Zinc	336695	META8415	Precision		**0.98**	0	20		2027869001
EPA 350.1										
MB	Ammonia, as N	336415	AUTO15615	Result	***ND***				*0.0090 mg/L*	
MS	Ammonia, as N	336416	AUTO15615	Accuracy		**99**	90	110		2305931001
MSD	Ammonia, as N	336417	AUTO15615	Accuracy		**99**	90	110		2305931001
MSD	Ammonia, as N	336417	AUTO15615	Precision		**0**	0	20		2305931001
LCS	Ammonia, as N	336418	AUTO15615	Accuracy		**97**	90	110		
MS	Ammonia, as N	336419	AUTO15615	Accuracy		**97**	90	110		2305942001
MSD	Ammonia, as N	336420	AUTO15615	Accuracy		**97**	90	110		2305942001
MSD	Ammonia, as N	336420	AUTO15615	Precision		**0**	0	20		2305942001
EPA 351.2										
MB	Total Kjeldahl Nitrogen	336246	AUTO15625	Result	***ND***				*0.045 mg/L*	
LCS	Total Kjeldahl Nitrogen	336247	AUTO15625	Accuracy		**101**	90	110		
MS	Total Kjeldahl Nitrogen	336248	AUTO15625	Accuracy		**107**	90	110		2027798001
MSD	Total Kjeldahl Nitrogen	336249	AUTO15625	Accuracy		**115**	90	110		2027798001
MSD	Total Kjeldahl Nitrogen	336249	AUTO15625	Precision		**7.2**	0	20		2027798001
EPA 353.2										
MMS	Nitrate/Nitrite as N	337139	AUTO15655	Accuracy		**101**	90	110		2027851002
MMSD	Nitrate/Nitrite as N	337140	AUTO15655	Accuracy		**100**	90	110		2027851002
MMSD	Nitrate/Nitrite as N	337140	AUTO15655	Precision		**1**	0	20		2027851002
EPA 365.1										
MB	Orthophosphate as P	336268	AUTO15613	Result	***ND***				*0.0019 mg/L*	
MS	Orthophosphate as P	336269	AUTO15613	Accuracy		**99**	90	110		2027813001
MSD	Orthophosphate as P	336270	AUTO15613	Accuracy		**99**	90	110		2027813001
MSD	Orthophosphate as P	336270	AUTO15613	Precision		**0**	0	20		2027813001
LCS	Orthophosphate as P	336271	AUTO15613	Accuracy		**101**	90	110		

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 5/15/07 13:00

[2027813]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	Method Blank Result	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	Detection Limit	Original Sample
Nitrate/Nitrite									
MB	Nitrate/Nitrite as N	337133	AUTO15655	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	337134	AUTO15655	Accuracy	**101**	90	110		
MB	Nitrate/Nitrite as N	337135	AUTO15655	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	337136	AUTO15655	Accuracy	**96**	90	110		
MS	Nitrate/Nitrite as N	337141	AUTO15655	Accuracy	**104**	90	110		2027805002
MSD	Nitrate/Nitrite as N	337142	AUTO15655	Accuracy	**101**	90	110		2027805002
MSD	Nitrate/Nitrite as N	337142	AUTO15655	Precision	**2.9**	0	20		2027805002
MS	Nitrate/Nitrite as N	337143	AUTO15655	Accuracy	**99**	90	110		2128721001
MSD	Nitrate/Nitrite as N	337144	AUTO15655	Accuracy	**100**	90	110		2128721001
MSD	Nitrate/Nitrite as N	337144	AUTO15655	Precision	**1**	0	20		2128721001
MS	Nitrate/Nitrite as N	337145	AUTO15655	Accuracy	**98**	90	110		2027932002
MSD	Nitrate/Nitrite as N	337146	AUTO15655	Accuracy	**100**	90	110		2027932002
MSD	Nitrate/Nitrite as N	337146	AUTO15655	Precision	**2**	0	20		2027932002
SM9222 D									
MB	Fecal Coliform	336310	MICR11878	Result ***ND***				*1.0 CFU/1*	
MB	Fecal Coliform	336311	MICR11878	Result ***ND***				*1.0 CFU/1*	
LCS	Fecal Coliform	336312	MICR11878	Accuracy	**100**	1	2000		
TP QC (Persulfate Digestion)									
MB	Total Phosphorus as P	336820	AUTO15653	Result ***ND***				*0.0012 mg/L*	
LCS	Total Phosphorus as P	336821	AUTO15653	Accuracy	**105**	90	110		
MS	Total Phosphorus as P	336822	AUTO15653	Accuracy	**99**	90	110		2027805001
MSD	Total Phosphorus as P	336823	AUTO15653	Accuracy	**98**	90	110		2027805001
MSD	Total Phosphorus as P	336823	AUTO15653	Precision	**1**	0	20		2027805001
MS	Total Phosphorus as P	336824	AUTO15653	Accuracy	**105**	90	110		2128696005
MSD	Total Phosphorus as P	336825	AUTO15653	Accuracy	**101**	90	110		2128696005
MSD	Total Phosphorus as P	336825	AUTO15653	Precision	**3.9**	0	20		2128696005

HARBOR BRANCH
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LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Date issued: May 30, 2007

To: Siaka Kone
SUTRON
6903 Visa Pkwy N #5
West Palm Beach, FL 33411

Client: SUTRON
Workorder ID: Parkway Baffle Box **[2027814]**
Received: 5/15/07 13:00

Dear Siaka Kone;

Analytical results presented in this report have been reviewed for compliance with the HARBOR BRANCH Environmental Laboratories Inc.'s (HBEL) Quality Systems Manual and have been determined to meet applicable Method guidelines and Standards referenced in the July 2003 National Environmental Laboratory Accreditation Program (NELAP) Quality Manual unless otherwise noted. The Analytical Results within these report pages reflect the values obtained from tests performed on Samples As Received by the laboratory unless indicated differently.

FDOH Safe Drinking Water Act, Clean Water Act and RCRA Certification #'s:

E96080, E83509, E85370, E84418

Questions regarding this report should be directed to the Report Signatory at (772) 465-2400, Ext. 285 referencing the HBEL Workorder ID [Number].

Respectfully submitted,

Cindy Cromer
Technical Director or Designee

HARBOR BRANCH
ENVIRONMENTAL
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5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Summary

Client: SUTRON
Workorder ID: Parkway Baffle Box
Received: 5/15/07 13:00

[2027814]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate

Method Narratives (If Applicable)

HBEL Sample Number	Sample ID	Analytical Method	Description

Quality Control Summary

Method	HBEL Batch	Analyte	Analytical Issue

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CERTIFICATE OF ANALYSIS

[2027814]

Client: SUTRON *Workorder ID:* Parkway Baffle Box

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Laboratory ID: **2027814001** *Sampled:* 05/14/07 22:36 *Received:* 05/15/07 13:00											
Sample ID: **Parkway Downstream#1 composite** *Matrix:* Water Results reported on Wet Weight Basis											
Total Suspended Solids		**28**	mg/L	0.7	2.8	EPA 160.2	WCGE27574		05/15/07 17:00	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8415	05/23/07 9:57	05/24/07 15:49	DM	E96080
Chromium		**0.0018 U**	mg/L	0.0018	0.0072	EPA 200.7	META8415	05/23/07 9:57	05/24/07 15:49	DM	E96080
Copper		**0.0063**	mg/L	0.0014	0.0056	EPA 200.7	META8415	05/23/07 9:57	05/24/07 15:49	DM	E96080
Zinc		**0.11**	mg/L	0.010	0.040	EPA 200.7	META8415	05/23/07 9:57	05/24/07 15:49	DM	E96080
Ammonia, as N		**0.077**	mg/L	0.0090	0.036	EPA 350.1	AUTO15615		05/17/07 18:29	JL	E96080
Total Kjeldahl Nitrogen		**1.2**	mg/L	0.045	0.18	EPA 351.2	AUTO15625	05/16/07 9:40	05/16/07 18:14	DM	E96080
Total Nitrogen		**1.6**	mg/L	0.048	0.19	EPA 351.2	CALC5399			DH	E96080
Nitrate/Nitrite as N		**0.34**	mg/L	0.0075	0.030	EPA 353.2	AUTO15655		05/29/07 13:52	DM	E96080
Orthophosphate as P		**0.21**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15613		05/16/07 9:27	JL	E96080
Total Phosphorus as P		**0.43**	mg/L	0.0012	0.0048	EPA 365.1	AUTO15653	05/23/07 11:00	05/23/07 13:49	JL	E96080
Fecal Coliform	B	**1000 U**	CFU/100mL	1000	1,000	SM9222 D	MICR11878		05/15/07 15:05	TR	E96080
Laboratory ID: **2027814002** *Sampled:* 05/14/07 22:36 *Received:* 05/15/07 13:00											
Sample ID: **Parkway Upstream #1 composite** *Matrix:* Water Results reported on Wet Weight Basis											
Total Suspended Solids		**21**	mg/L	0.7	2.8	EPA 160.2	WCGE27574		05/15/07 17:00	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8415	05/23/07 9:57	05/24/07 15:55	DM	E96080
Chromium		**0.0018 U**	mg/L	0.0018	0.0072	EPA 200.7	META8415	05/23/07 9:57	05/24/07 15:55	DM	E96080
Copper		**0.0057**	mg/L	0.0014	0.0056	EPA 200.7	META8415	05/23/07 9:57	05/24/07 15:55	DM	E96080
Zinc		**0.033 I**	mg/L	0.010	0.040	EPA 200.7	META8415	05/23/07 9:57	05/24/07 15:55	DM	E96080
Ammonia, as N		**0.063**	mg/L	0.0090	0.036	EPA 350.1	AUTO15615		05/17/07 18:29	JL	E96080
Total Kjeldahl Nitrogen		**1.1**	mg/L	0.045	0.18	EPA 351.2	AUTO15625	05/16/07 9:40	05/16/07 18:14	DM	E96080
Nitrate/Nitrite as N		**0.33**	mg/L	0.0075	0.030	EPA 353.2	AUTO15655		05/29/07 13:54	DM	E96080
Orthophosphate as P		**0.22**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15613		05/16/07 9:27	JL	E96080
Total Phosphorus as P		**0.41**	mg/L	0.0012	0.0048	EPA 365.1	AUTO15653	05/23/07 11:00	05/23/07 13:49	JL	E96080
Fecal Coliform	B	**12000**	CFU/100mL	1000	1,000	SM9222 D	MICR11878		05/15/07 15:05	TR	E96080

[1]Result Qualifiers: U = Not Detected I = Analyte detected between the Laboratory Method Detection Limit and Laboratory Reporting Limit
Applicable Florida Department of Environmental Protection Qualifiers defined below. Statement of Estimated Uncertainty available upon request.

B Results based upon colony counts outside of the acceptable range.

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 US 1 North, Fort Pierce, FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Chain-of-Custody
and
Agreement to Perform Services

USE BALL POINT PEN
PRESS HARD
COMPLETELY FILL OUT
ALL NON GREYED AREAS
PRINT LEGIBLY

Laboratory not responsible for omitted information

____FDOH # E96080
5600 U.S. 1 North
Fort Pierce, FL 34946

____FDOH # E85370
307 Coolidge Avenue
Lehigh Acres, FL 33936

____FDOH # E83509
4155 St. Johns Pkwy.
Suite 1300
Sanford, FL 32771

____FDOH # E84418
16331 Cortez Blvd.
Brooksville, FL 34601

ACCREDITED IN ACCORDANCE WITH nelac

Company: Sutron Suite #5
Address: 6903 Vista Parkway N ~~#5~~
WPB FL Zip: 33411
Phone: 561 697 8151 Fax:
Client Contact: Forrest Jay
Project Name: Baffle Box - Parkway
Sampled By: Forrest Jay

Method(s) of Shipment: Self

e-mail: fjay@sutron.com

X Standard Laboratory Turn Around Time
Or
Rush in ____ Business Days
Requires Laboratory Approval

For Lab Use Only
-1.4°C
Temperature Checked (Y) N
Custody Seals Intact (Y) N
pH Checked Y N

LAB # 2027814

PRESERVATIVE: / | Na2S2O3 | HNO3 | H2SO4 | / | | | |

ANALYSES REQUESTED: A | B | C | D | E | | | |

Preservation Key
H=Hydrochloric Acid
N=Nitric Acid
S=Sulfuric Acid
SH=Sodium Hydroxide
P=Phosphoric Acid
ST=Sodium Thiosulfate
U=Unpreserved

LAB ID	COLLECTION DATE	COLLECTION TIME	Sample Type*	MATRIX**	# Containers	SAMPLE DESCRIPTION As Will Appear On Report	TSS	FC	Cd, Cu, Zn, Cl	NO3, TKN, NH3, TP	OPO4				COMMENTS
001	5/14/07	22:36	C	SW	5	Parkway Downstream #1	1	1	1	1	1				
2	5/14/07	22:36	C	SW	5	Parkway Upstream #1	1	1	1	1	1				

* Sample Type: G=Grab C=Composite
** Matrix: S=Solid SL=Sludge DW=Drinking Water GW=Ground Water SW=Surface Water WW=Wastewater M=Marine

RELINQUISHED BY	RELINQUISHED BY	RELINQUISHED BY
DATE/TIME 5/15/07 13:00	DATE/TIME	DATE/TIME
RECEIVED BY	RECEIVED BY	RECEIVED FOR HBEL CUSTODY BY
DATE/TIME	DATE/TIME	DATE/TIME 5/15/07 1300

Report Page 1 of 1

Distribution: WHITE with REPORT; YELLOW for FILE; PINK to CLIENT; GOLD for SAMPLER

CHAIN PAGE 1 of 1

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Parkway Baffle Box
Received: 5/15/07 13:00

[2027814]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	Method Blank Result	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	Detection Limit	Original Sample
EPA 160.2									
MB	Total Suspended Solids	336205	WCGE27574	Result ***ND***				*0.7 mg/L*	
DUP	Total Suspended Solids	336206	WCGE27574	Precision	**2.1**	0	10		2027805001
LCS	Total Suspended Solids	336207	WCGE27574	Accuracy	**101**	85	115		
DUP	Total Suspended Solids	336208	WCGE27574	Precision	**2.2**	0	10		2027805002
EPA 200.7									
MB	Cadmium	336692	META8415	Result ***ND***				*0.00070 mg/L*	
LCS	Cadmium	336693	META8415	Accuracy	**97**	85	115		
MS	Cadmium	336694	META8415	Accuracy	**99**	70	114		2027869001
MSD	Cadmium	336695	META8415	Accuracy	**97**	70	114		2027869001
MSD	Cadmium	336695	META8415	Precision	**2**	0	20		2027869001
MB	Chromium	336692	META8415	Result ***ND***				*0.0018 mg/L*	
LCS	Chromium	336693	META8415	Accuracy	**99**	85	115		
MS	Chromium	336694	META8415	Accuracy	**101**	77.3	113		2027869001
MSD	Chromium	336695	META8415	Accuracy	**99**	77.3	113		2027869001
MSD	Chromium	336695	META8415	Precision	**2**	0	20		2027869001
MB	Copper	336692	META8415	Result ***ND***				*0.0014 mg/L*	
LCS	Copper	336693	META8415	Accuracy	**99**	85	115		
MS	Copper	336694	META8415	Accuracy	**100**	80.1	121		2027869001
MSD	Copper	336695	META8415	Accuracy	**99**	80.1	121		2027869001
MSD	Copper	336695	META8415	Precision	**1**	0	20		2027869001
MB	Zinc	336692	META8415	Result ***ND***				*0.010 mg/L*	
LCS	Zinc	336693	META8415	Accuracy	**101**	85	115		
MS	Zinc	336694	META8415	Accuracy	**103**	70	130		2027869001
MSD	Zinc	336695	META8415	Accuracy	**102**	70	130		2027869001
MSD	Zinc	336695	META8415	Precision	**0.98**	0	20		2027869001
EPA 350.1									
MB	Ammonia, as N	336415	AUTO15615	Result ***ND***				*0.0090 mg/L*	
MS	Ammonia, as N	336416	AUTO15615	Accuracy	**99**	90	110		2305931001
MSD	Ammonia, as N	336417	AUTO15615	Accuracy	**99**	90	110		2305931001
MSD	Ammonia, as N	336417	AUTO15615	Precision	**0**	0	20		2305931001
LCS	Ammonia, as N	336418	AUTO15615	Accuracy	**97**	90	110		
MS	Ammonia, as N	336419	AUTO15615	Accuracy	**97**	90	110		2305942001
MSD	Ammonia, as N	336420	AUTO15615	Accuracy	**97**	90	110		2305942001
MSD	Ammonia, as N	336420	AUTO15615	Precision	**0**	0	20		2305942001

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Quality Control Report

Client: SUTRON
Workorder ID: Parkway Baffle Box
Received: 5/15/07 13:00

[2027814]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	Method Blank Result	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	Detection Limit	Original Sample
EPA 351.2									
MB	Total Kjeldahl Nitrogen	336246	AUTO15625	Result ***ND***				*0.045 mg/L*	
LCS	Total Kjeldahl Nitrogen	336247	AUTO15625	Accuracy	**101**	90	110		
MS	Total Kjeldahl Nitrogen	336248	AUTO15625	Accuracy	**107**	90	110		2027798001
MSD	Total Kjeldahl Nitrogen	336249	AUTO15625	Accuracy	**115**	90	110		2027798001
MSD	Total Kjeldahl Nitrogen	336249	AUTO15625	Precision	**7.2**	0	20		2027798001
EPA 353.2									
MMS	Nitrate/Nitrite as N	337139	AUTO15655	Accuracy	**101**	90	110		2027851002
MMSD	Nitrate/Nitrite as N	337140	AUTO15655	Accuracy	**100**	90	110		2027851002
MMSD	Nitrate/Nitrite as N	337140	AUTO15655	Precision	**1**	0	20		2027851002
EPA 365.1									
MB	Orthophosphate as P	336268	AUTO15613	Result ***ND***				*0.0019 mg/L*	
MS	Orthophosphate as P	336269	AUTO15613	Accuracy	**99**	90	110		2027813001
MSD	Orthophosphate as P	336270	AUTO15613	Accuracy	**99**	90	110		2027813001
MSD	Orthophosphate as P	336270	AUTO15613	Precision	**0**	0	20		2027813001
LCS	Orthophosphate as P	336271	AUTO15613	Accuracy	**101**	90	110		
Nitrate/Nitrite									
MB	Nitrate/Nitrite as N	337133	AUTO15655	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	337134	AUTO15655	Accuracy	**101**	90	110		
MB	Nitrate/Nitrite as N	337135	AUTO15655	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	337136	AUTO15655	Accuracy	**96**	90	110		
MS	Nitrate/Nitrite as N	337141	AUTO15655	Accuracy	**104**	90	110		2027805002
MSD	Nitrate/Nitrite as N	337142	AUTO15655	Accuracy	**101**	90	110		2027805002
MSD	Nitrate/Nitrite as N	337142	AUTO15655	Precision	**2.9**	0	20		2027805002
MS	Nitrate/Nitrite as N	337143	AUTO15655	Accuracy	**99**	90	110		2128721001
MSD	Nitrate/Nitrite as N	337144	AUTO15655	Accuracy	**100**	90	110		2128721001
MSD	Nitrate/Nitrite as N	337144	AUTO15655	Precision	**1**	0	20		2128721001
MS	Nitrate/Nitrite as N	337145	AUTO15655	Accuracy	**98**	90	110		2027932002
MSD	Nitrate/Nitrite as N	337146	AUTO15655	Accuracy	**100**	90	110		2027932002
MSD	Nitrate/Nitrite as N	337146	AUTO15655	Precision	**2**	0	20		2027932002
SM9222 D									
MB	Fecal Coliform	336310	MICR11878	Result ***ND***				*1.0 CFU/1*	
MB	Fecal Coliform	336311	MICR11878	Result ***ND***				*1.0 CFU/1*	
LCS	Fecal Coliform	336312	MICR11878	Accuracy	**100**	1	2000		

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Quality Control Report

Client: SUTRON
Workorder ID: Parkway Baffle Box
Received: 5/15/07 13:00

[2027814]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

TP QC (Persulfate Digestion)

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number		*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MB	Total Phosphorus as P	336820	AUTO15653	Result	***ND***				*0.0012 mg/L*	
LCS	Total Phosphorus as P	336821	AUTO15653	Accuracy		**105**	90	110		
MS	Total Phosphorus as P	336822	AUTO15653	Accuracy		**99**	90	110		2027805001
MSD	Total Phosphorus as P	336823	AUTO15653	Accuracy		**98**	90	110		2027805001
MSD	Total Phosphorus as P	336823	AUTO15653	Precision		**1**	0	20		2027805001
MS	Total Phosphorus as P	336824	AUTO15653	Accuracy		**105**	90	110		2128696005
MSD	Total Phosphorus as P	336825	AUTO15653	Accuracy		**101**	90	110		2128696005
MSD	Total Phosphorus as P	336825	AUTO15653	Precision		**3.9**	0	20		2128696005

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Date issued: June 7, 2007

To: Siaka Kone
SUTRON
6903 Visa Pkwy N #5
West Palm Beach, FL 33411

Client: SUTRON
Workorder ID: Lincoln Baffle Box **[2027932]**
Received: 5/25/07 11:50

Dear Siaka Kone;

Analytical results presented in this report have been reviewed for compliance with the HARBOR BRANCH Environmental Laboratories Inc.'s (HBEL) Quality Systems Manual and have been determined to meet applicable Method guidelines and Standards referenced in the July 2003 National Environmental Laboratory Accreditation Program (NELAP) Quality Manual unless otherwise noted. The Analytical Results within these report pages reflect the values obtained from tests performed on Samples As Received by the laboratory unless indicated differently.

FDOH Safe Drinking Water Act, Clean Water Act and RCRA Certification #'s:

E96080, E83509, E85370, E84418

Questions regarding this report should be directed to the Report Signatory at (772) 465-2400, Ext. 285 referencing the HBEL Workorder ID [Number].

Respectfully submitted,

Cindy Cromer
Technical Director or Designee

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Summary

Client: SUTRON
Workorder ID: Lincoln Baffle Box **[2027932]**
Received: 5/25/07 11:50

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate

Method Narratives (If Applicable)

HBEL Sample Number	Sample ID	Analytical Method	Description

Quality Control Summary

Method	HBEL Batch	Analyte	Analytical Issue

HARBOR BRANCH
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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

CERTIFICATE OF ANALYSIS

[2027932]

Client: SUTRON *Workorder ID:* Lincoln Baffle Box

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Laboratory ID: ***2027932001*** *Sample ID:* ***Lincoln UP grab***						*Sampled: 05/24/07 21:49* *Matrix: Water*		*Received: 05/25/07 11:50* Results reported on Wet Weight Basis			
Total Suspended Solids		**18**	mg/L	0.7	2.8	EPA 160.2	WCGE27626		05/25/07 17:00	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8426	06/2/07 10:55	06/4/07 12:31	DM	E96080
Chromium		**0.0019 I**	mg/L	0.0018	0.0072	EPA 200.7	META8426	06/2/07 10:55	06/4/07 12:31	DM	E96080
Copper		**0.012**	mg/L	0.0014	0.0056	EPA 200.7	META8426	06/2/07 10:55	06/4/07 12:31	DM	E96080
Zinc		**0.30**	mg/L	0.010	0.040	EPA 200.7	META8426	06/2/07 10:55	06/4/07 12:31	DM	E96080
Ammonia, as N		**0.049**	mg/L	0.0090	0.036	EPA 350.1	AUTO15656		05/29/07 16:54	JL	E96080
Total Kjeldahl Nitrogen		**0.63**	mg/L	0.045	0.18	EPA 351.2	AUTO15680	06/5/07 11:00	06/6/07 11:25	DM	E96080
Total Nitrogen		**0.76**	mg/L	0.048	0.19	EPA 351.2	CALC5399		06/7/07 14:33	DH	E96080
Nitrate/Nitrite as N		**0.12**	mg/L	0.0075	0.030	EPA 353.2	AUTO15655		05/29/07 14:14	DM	E96080
Orthophosphate as P		**0.049**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15652		05/25/07 14:35	JL	E96080
Total Phosphorus as P		**0.14**	mg/L	0.0012	0.0048	EPA 365.1	AUTO15664	05/31/07 9:00	05/31/07 11:54	JL	E96080
Fecal Coliform	B	**1800**	CFU/100mL	100	100	SM9222 D	MICR11904		05/25/07 13:00	TR	E96080
Laboratory ID: ***2027932002*** *Sample ID:* ***Lincoln DOWN grab***						*Sampled: 05/24/07 21:49* *Matrix: Water*		*Received: 05/25/07 11:50* Results reported on Wet Weight Basis			
Total Suspended Solids		**29**	mg/L	0.7	2.8	EPA 160.2	WCGE27626		05/25/07 17:00	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8426	06/2/07 10:55	06/4/07 12:50	DM	E96080
Chromium		**0.0029 I**	mg/L	0.0018	0.0072	EPA 200.7	META8426	06/2/07 10:55	06/4/07 12:50	DM	E96080
Copper		**0.018**	mg/L	0.0014	0.0056	EPA 200.7	META8426	06/2/07 10:55	06/4/07 12:50	DM	E96080
Zinc		**0.12**	mg/L	0.010	0.040	EPA 200.7	META8426	06/2/07 10:55	06/4/07 12:50	DM	E96080
Ammonia, as N		**0.074**	mg/L	0.0090	0.036	EPA 350.1	AUTO15656		05/29/07 16:54	JL	E96080
Total Kjeldahl Nitrogen		**0.94**	mg/L	0.045	0.18	EPA 351.2	AUTO15680	06/5/07 11:00	06/6/07 11:25	DM	E96080
Total Nitrogen		**1.1**	mg/L	0.048	0.19	EPA 351.2	CALC5399		06/7/07 14:33	DH	E96080
Nitrate/Nitrite as N		**0.15**	mg/L	0.0075	0.030	EPA 353.2	AUTO15655		05/29/07 14:15	DM	E96080
Orthophosphate as P		**0.045**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15652		05/25/07 14:35	JL	E96080
Total Phosphorus as P		**0.16**	mg/L	0.0012	0.0048	EPA 365.1	AUTO15664	05/31/07 9:00	05/31/07 11:54	JL	E96080
Fecal Coliform	B	**800**	CFU/100mL	100	100	SM9222 D	MICR11904		05/25/07 13:00	TR	E96080

[1]Result Qualifiers: U = Not Detected I = Analyte detected between the Laboratory Method Detection Limit and Laboratory Reporting Limit
Applicable Florida Department of Environmental Protection Qualifiers defined below. Statement of Estimated Uncertainty available upon request.

B Results based upon colony counts outside of the acceptable range.

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 US 1 North, Fort Pierce, FL 34946
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Chain-of-Custody
and
Agreement to Perform Services

USE BALL POINT PEN
PRESS HARD
COMPLETELY FILL OUT
ALL NON GREYED AREAS
PRINT LEGIBLY

Laboratory not responsible for omitted information

____FDOH # E96080
5600 U.S. 1 North
Fort Pierce, FL 34946

____FDOH # E85370
307 Coolidge Avenue
Lehigh Acres, FL 33936

____FDOH # E83509
4155 St. Johns Pkwy.
Suite 1300
Sanford, FL 32771

____FDOH # E84418
16331 Cortez Blvd.
Brooksville, FL 34601

ACCREDITED IN ACCORDANCE WITH nelac

Company: Sutron Corp
Address: 6903 Vista Pkwy N.
Suite 5 Zip: 33411
Phone: 561 697 8151 Fax: 561 697 8153
Client Contact: Forrest Jay
Project Name: Baffle Box
Sampled By: Anthony McCormick

Method(s) of Shipment: SC/P

e-mail: fjay@sutron.com

Standard Laboratory Turn Around Time
Or
Rush in ____ Business Days
Requires Laboratory Approval

For Lab Use Only
Temperature 0.9°C Checked Y N
Custody Seals Intact Y N N/A
pH Checked Y N

LAB # 2027932

PRESERVATIVE								
1	HNO3	NaOH ZnAc	1	H2SO4				

ANALYSES REQUESTED								
A	B	C	D	E				
TSS	Cd, Cu, Zn	Fecal Coliform	OPO4	NOx, TKN, NH3, TN, TP				

Preservation Key
H=Hydrochloric Acid P=Phosphoric Acid
N=Nitric Acid ST=Sodium Thiosulfate
S=Sulfuric Acid
SH=Sodium Hydroxide U=Unpreserved

LAB ID	COLLECTION DATE	COLLECTION TIME	Sample Type*	MATRIX**	# Containers	SAMPLE DESCRIPTION As Will Appear On Report	A TSS	B Cd, Cu, Zn	C Fecal Coliform	D OPO4	E NOx, TKN, NH3, TN, TP				COMMENTS
001	5-24	21 49	C	SW	5	Lincoln Up	1	1	1	1	1				
2	5-24	21 49	C	SW	5	Lincoln Down	1	1	1	1	1				

* Sample Type: G=Grab C=Composite
** Matrix: S=Solid SL=Sludge DW=Drinking Water GW=Ground Water SW=Surface Water WW=Wastewater M=Marine

RELINQUISHED BY [signature]	RELINQUISHED BY	RELINQUISHED BY
DATE/TIME 5-25-07 1150 AM	DATE/TIME	DATE/TIME
RECEIVED BY	RECEIVED BY	RECEIVED FOR HBEL CUSTODY BY [signature]
DATE/TIME	DATE/TIME	DATE/TIME 5/25/07 1150

Report Page 4 of 4

Distribution: WHITE with REPORT; YELLOW for FILE; PINK to CLIENT; GOLD for SAMPLER

CHAIN PAGE 1 of 1

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 5/25/07 11:50

[2027932]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
EPA 160.2									
MB	Total Suspended Solids	336970	WCGE27626	Result ***ND***				*0.7 mg/L*	
DUP	Total Suspended Solids	336971	WCGE27626	Precision	**0**	0	10		2027882005
LCS	Total Suspended Solids	336972	WCGE27626	Accuracy	**94**	85	115		
DUP	Total Suspended Solids	336973	WCGE27626	Precision	**4.2**	0	10		2027882007
EPA 200.7									
MB	Cadmium	337443	META8426	Result ***ND***				*0.00070 mg/L*	
LCS	Cadmium	337444	META8426	Accuracy	**96**	85	115		
MS	Cadmium	337445	META8426	Accuracy	**97**	70	114		2128736001
MSD	Cadmium	337446	META8426	Accuracy	**97**	70	114		2128736001
MSD	Cadmium	337446	META8426	Precision	**0**	0	20		2128736001
MB	Chromium	337443	META8426	Result ***ND***				*0.0018 mg/L*	
LCS	Chromium	337444	META8426	Accuracy	**97**	85	115		
MS	Chromium	337445	META8426	Accuracy	**100**	77.3	113		2128736001
MSD	Chromium	337446	META8426	Accuracy	**100**	77.3	113		2128736001
MSD	Chromium	337446	META8426	Precision	**0**	0	20		2128736001
MB	Copper	337443	META8426	Result ***ND***				*0.0014 mg/L*	
LCS	Copper	337444	META8426	Accuracy	**98**	85	115		
MS	Copper	337445	META8426	Accuracy	**101**	80.1	121		2128736001
MSD	Copper	337446	META8426	Accuracy	**101**	80.1	121		2128736001
MSD	Copper	337446	META8426	Precision	**0**	0	20		2128736001
MB	Zinc	337443	META8426	Result ***ND***				*0.010 mg/L*	
LCS	Zinc	337444	META8426	Accuracy	**100**	85	115		
MS	Zinc	337445	META8426	Accuracy	**100**	70	130		2128736001
MSD	Zinc	337446	META8426	Accuracy	**99**	70	130		2128736001
MSD	Zinc	337446	META8426	Precision	**1**	0	20		2128736001
EPA 350.1									
MB	Ammonia, as N	337159	AUTO15656	Result ***ND***				*0.0090 mg/L*	
MS	Ammonia, as N	337160	AUTO15656	Accuracy	**98**	90	110		2305951005
MSD	Ammonia, as N	337161	AUTO15656	Accuracy	**99**	90	110		2305951005
MSD	Ammonia, as N	337161	AUTO15656	Precision	**1**	0	20		2305951005
LCS	Ammonia, as N	337162	AUTO15656	Accuracy	**97**	90	110		
MS	Ammonia, as N	337163	AUTO15656	Accuracy	**103**	90	110		2305950002
MSD	Ammonia, as N	337164	AUTO15656	Accuracy	**101**	90	110		2305950002
MSD	Ammonia, as N	337164	AUTO15656	Precision	**2**	0	20		2305950002

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 5/25/07 11:50

[2027932]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	Method Blank Result	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	Detection Limit	Original Sample
EPA 351.2									
MB	Total Kjeldahl Nitrogen	337550	AUTO15680	Result ***ND***				*0.045 mg/L*	
LCS	Total Kjeldahl Nitrogen	337551	AUTO15680	Accuracy	**110**	90	110		
MS	Total Kjeldahl Nitrogen	337552	AUTO15680	Accuracy	**91**	90	110		2027975002
MSD	Total Kjeldahl Nitrogen	337553	AUTO15680	Accuracy	**107**	90	110		2027975002
MSD	Total Kjeldahl Nitrogen	337553	AUTO15680	Precision	**16**	0	20		2027975002
EPA 353.2									
MMS	Nitrate/Nitrite as N	337139	AUTO15655	Accuracy	**101**	90	110		2027851002
MMSD	Nitrate/Nitrite as N	337140	AUTO15655	Accuracy	**100**	90	110		2027851002
MMSD	Nitrate/Nitrite as N	337140	AUTO15655	Precision	**1**	0	20		2027851002
EPA 365.1									
MB	Orthophosphate as P	337041	AUTO15652	Result ***ND***				*0.0019 mg/L*	
MS	Orthophosphate as P	337042	AUTO15652	Accuracy	**100**	90	110		2027932001
MSD	Orthophosphate as P	337043	AUTO15652	Accuracy	**100**	90	110		2027932001
MSD	Orthophosphate as P	337043	AUTO15652	Precision	**0**	0	20		2027932001
LCS	Orthophosphate as P	337044	AUTO15652	Accuracy	**101**	90	110		
Nitrate/Nitrite									
MB	Nitrate/Nitrite as N	337133	AUTO15655	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	337134	AUTO15655	Accuracy	**101**	90	110		
MB	Nitrate/Nitrite as N	337135	AUTO15655	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	337136	AUTO15655	Accuracy	**96**	90	110		
MS	Nitrate/Nitrite as N	337141	AUTO15655	Accuracy	**104**	90	110		2027805002
MSD	Nitrate/Nitrite as N	337142	AUTO15655	Accuracy	**101**	90	110		2027805002
MSD	Nitrate/Nitrite as N	337142	AUTO15655	Precision	**2.9**	0	20		2027805002
MS	Nitrate/Nitrite as N	337143	AUTO15655	Accuracy	**99**	90	110		2128721001
MSD	Nitrate/Nitrite as N	337144	AUTO15655	Accuracy	**100**	90	110		2128721001
MSD	Nitrate/Nitrite as N	337144	AUTO15655	Precision	**1**	0	20		2128721001
MS	Nitrate/Nitrite as N	337145	AUTO15655	Accuracy	**98**	90	110		2027932002
MSD	Nitrate/Nitrite as N	337146	AUTO15655	Accuracy	**100**	90	110		2027932002
MSD	Nitrate/Nitrite as N	337146	AUTO15655	Precision	**2**	0	20		2027932002
SM9222 D									
MB	Fecal Coliform	337223	MICR11904	Result ***ND***				*1.0 CFU/1*	
MB	Fecal Coliform	337224	MICR11904	Result ***ND***				*1.0 CFU/1*	
LCS	Fecal Coliform	337225	MICR11904	Accuracy	**100**	1	2000		

HARBOR BRANCH
ENVIRONMENTAL
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5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 5/25/07 11:50

[2027932]

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

TP QC (Persulfate Digestion)

MB	Total Phosphorus as P	337282	AUTO15664	Result	***ND***			*0.0012 mg/L*	
LCS	Total Phosphorus as P	337283	AUTO15664	Accuracy	**98**	90	110		
MS	Total Phosphorus as P	337284	AUTO15664	Accuracy	**100**	90	110		2027932001
MSD	Total Phosphorus as P	337285	AUTO15664	Accuracy	**101**	90	110		2027932001
MSD	Total Phosphorus as P	337285	AUTO15664	Precision	**1**	0	20		2027932001

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Date issued: August 13, 2007

To: Siaka Kone
SUTRON
6903 Visa Pkwy N #5
West Palm Beach, FL 33411

Client: SUTRON
Workorder ID: Lincoln Baffle Box Stormwater **[2028397]**
Received: 7/24/07 11:55

Dear Siaka Kone;

Analytical results presented in this report have been reviewed for compliance with the HARBOR BRANCH Environmental Laboratories Inc.'s (HBEL) Quality Systems Manual and have been determined to meet applicable Method guidelines and Standards referenced in the July 2003 National Environmental Laboratory Accreditation Program (NELAP) Quality Manual unless otherwise noted. The Analytical Results within these report pages reflect the values obtained from tests performed on Samples As Received by the laboratory unless indicated differently.

FDOH Safe Drinking Water Act, Clean Water Act and RCRA Certification #'s:

E96080, E83509, E85370, E84418

Questions regarding this report should be directed to the Report Signatory at (772) 465-2400, Ext. 285 referencing the HBEL Workorder ID [Number].

Respectfully submitted,

Cindy Cromer
Technical Director or Designee

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Summary

Client: SUTRON
Workorder ID: Lincoln Baffle Box Stormwater **[2028397]**
Received: 7/24/07 11:55

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate

Method Narratives (If Applicable)

HBEL Sample Number	Sample ID	Analytical Method	Description

Quality Control Summary

Method	HBEL Batch	Analyte	Analytical Issue

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

CERTIFICATE OF ANALYSIS

[2028397]

Client: SUTRON *Workorder ID:* Lincoln Baffle Box Stormwater

Laboratory ID: ***2028397001*** *Sampled: 07/23/07 19:08* *Received: 07/24/07 11:55*
Sample ID: ***Lincoln Up Composite*** *Matrix: Water* Results reported on Wet Weight Basis

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Total Suspended Solids		**20**	mg/L	0.7	2.8	EPA 160.2	WCGE27903		07/25/07 13:30	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8512	08/6/07 14:29	08/8/07 12:45	DM	E96080
Chromium		**0.0020 I**	mg/L	0.0018	0.0072	EPA 200.7	META8512	08/6/07 14:29	08/8/07 12:45	DM	E96080
Copper		**0.0090**	mg/L	0.0014	0.0056	EPA 200.7	META8512	08/6/07 14:29	08/8/07 12:45	DM	E96080
Zinc		**0.060**	mg/L	0.010	0.040	EPA 200.7	META8512	08/6/07 14:29	08/8/07 12:45	DM	E96080
Ammonia, as N		**0.055**	mg/L	0.0090	0.036	EPA 350.1	AUTO15792		07/27/07 13:21	JL	E96080
Total Kjeldahl Nitrogen		**0.44**	mg/L	0.045	0.18	EPA 351.2	AUTO15799	07/26/07 10:55	07/26/07 15:44	DM	E96080
Total Nitrogen		**0.81**	mg/L	0.048	0.19	EPA 351.2	CALC5434			DH	E96080
Nitrate/Nitrite as N		**0.36**	mg/L	0.0075	0.030	EPA 353.2	AUTO15821		08/7/07 12:30	DM	E96080
Orthophosphate as P		**0.058**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15780		07/24/07 16:30	JL	E96080
Total Phosphorus as P		**0.15**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15806	07/30/07 10:43	07/30/07 16:26	JL	E96080
Fecal Coliform		**29000**	CFU/100mL	1000	1,000	SM9222 D	MICR12042		07/24/07 12:55	SP	E96080

Laboratory ID: ***2028397002*** *Sampled: 07/23/07 13:31* *Received: 07/24/07 11:55*
Sample ID: ***Lincoln Down Composite*** *Matrix: Water* Results reported on Wet Weight Basis

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Total Suspended Solids		**19**	mg/L	0.8	3.2	EPA 160.2	WCGE27903		07/25/07 13:30	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8512	08/6/07 14:29	08/8/07 12:51	DM	E96080
Chromium		**0.0019 I**	mg/L	0.0018	0.0072	EPA 200.7	META8512	08/6/07 14:29	08/8/07 12:51	DM	E96080
Copper		**0.0086**	mg/L	0.0014	0.0056	EPA 200.7	META8512	08/6/07 14:29	08/8/07 12:51	DM	E96080
Zinc		**0.068**	mg/L	0.010	0.040	EPA 200.7	META8512	08/6/07 14:29	08/8/07 12:51	DM	E96080
Ammonia, as N		**0.068**	mg/L	0.0090	0.036	EPA 350.1	AUTO15792		07/27/07 13:21	JL	E96080
Total Kjeldahl Nitrogen		**0.49**	mg/L	0.045	0.18	EPA 351.2	AUTO15799	07/26/07 10:55	07/26/07 15:45	DM	E96080
Total Nitrogen		**0.79**	mg/L	0.048	0.19	EPA 351.2	CALC5434			DH	E96080
Nitrate/Nitrite as N		**0.30**	mg/L	0.0075	0.030	EPA 353.2	AUTO15821		08/7/07 12:31	DM	E96080
Orthophosphate as P		**0.042**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15780		07/24/07 16:30	JL	E96080
Total Phosphorus as P		**0.14**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15806	07/30/07 10:43	07/30/07 16:26	JL	E96080
Fecal Coliform		**34000**	CFU/100mL	1000	1,000	SM9222 D	MICR12042		07/24/07 12:55	SP	E96080

[1]Result Qualifiers: U = Not Detected I = Analyte detected between the Laboratory Method Detection Limit and Laboratory Reporting Limit
Applicable Florida Department of Environmental Protection Qualifiers defined below. Statement of Estimated Uncertainty available upon request.

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 US 1 North, Fort Pierce, FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Chain-of-Custody
and
Agreement to Perform Services

USE BALL POINT PEN
PRESS HARD
COMPLETELY FILL OUT
ALL NON GREYED AREAS
PRINT LEGIBLY

Laboratory not responsible for omitted information

____FDOH # E96080
5600 U.S. 1 North
Fort Pierce, FL 34946

____FDOH # E85370
307 Coolidge Avenue
Lehigh Acres, FL 33936

____FDOH # E83509
4155 St. Johns Pkwy.
Suite 1300
Sanford, FL 32771

____FDOH # E84418
16331 Cortez Blvd.
Brooksville, FL 34601

ACCREDITED IN ACCORDANCE WITH nelac

Company: Sutron

Address: 6903 Vista Parkway North
Suite #5 Zip: 33411 WPB FL

Phone: 561 697-8151 Fax: 561 697 8153

Client Contact: Siaka Kone

Project Name: Buffle Box

Sampled By: Forrest Jay

Method(s) of Shipment: self

e-mail:

X Standard Laboratory Turn Around Time

Or

Rush in ____ Business Days
Requires Laboratory Approval

For Lab Use Only

Temperature Checked: 0.8° (Y) N

Custody Seals Intact: Y N /(N)

pH Checked: Y N

LAB # 2028397

PRESERVATIVE	1	2	5	1	6			
ANALYSES REQUESTED	A	B	C	E	D			
	TSS	Cd, Cr, Cu, Zn	Nox, TKN, NH3, TN, TP	OPO4	FC			

Preservation Key
H=Hydrochloric Acid P=Phosphoric Acid
N=Nitric Acid ST=Sodium Thiosulfate
S=Sulfuric Acid
SH=Sodium Hydroxide U=Unpreserved

LAB ID	COLLECTION DATE	COLLECTION TIME	Sample Type*	MATRIX**	# Containers	SAMPLE DESCRIPTION As Will Appear On Report	A TSS	B Cd, Cr, Cu, Zn	C Nox, TKN, NH3, TN, TP	E OPO4	D FC				COMMENTS
001	7/24/07	1:31	C	SW	5	Lincoln Down	1	1	1	1	1				
002	7/23/07	19:08	C	SW	5	Lincoln Up	1	1	1	1	1				

* Sample Type: G=Grab C=Composite

** Matrix: S=Solid SL=Sludge DW=Drinking Water GW=Ground Water SW=Surface Water WW=Wastewater M=Marine

RELINQUISHED BY Forrest Jay	RELINQUISHED BY	RELINQUISHED BY	
DATE/TIME 7/24/07 11:55	DATE/TIME	DATE/TIME	
RECEIVED BY	RECEIVED BY	RECEIVED FOR HBEL CUSTODY BY [signature]	
DATE/TIME	DATE/TIME	DATE/TIME 7-24-07 1155	

Report Page 4 of 4

Distribution: WHITE with REPORT; YELLOW for FILE; PINK to CLIENT; GOLD for SAMPLER

CHAIN PAGE 1 of 1

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box Stormwater
Received: 7/24/07 11:55

[2028397]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number		*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
EPA 160.2										
MB	Total Suspended Solids	340953	WCGE27903	Result	***ND***				*0.7 mg/L*	
DUP	Total Suspended Solids	340954	WCGE27903	Precision		**1.7**	0	10		2028385001
LCS	Total Suspended Solids	340955	WCGE27903	Accuracy		**99**	85	115		
DUP	Total Suspended Solids	340956	WCGE27903	Precision		**2.8**	0	10		2028379001
EPA 200.7										
MB	Cadmium	341863	META8512	Result	***ND***				*0.00070 mg/L*	
LCS	Cadmium	341864	META8512	Accuracy		**98**	85	115		
MS	Cadmium	341865	META8512	Accuracy		**97**	70	114		2028435002
MSD	Cadmium	341866	META8512	Accuracy		**99**	70	114		2028435002
MSD	Cadmium	341866	META8512	Precision		**2**	0	20		2028435002
MS	Cadmium	341867	META8512	Accuracy		**100**	70	114		2028411001
MB	Chromium	341863	META8512	Result	***ND***				*0.0018 mg/L*	
LCS	Chromium	341864	META8512	Accuracy		**102**	85	115		
MS	Chromium	341865	META8512	Accuracy		**100**	77.3	113		2028435002
MSD	Chromium	341866	META8512	Accuracy		**102**	77.3	113		2028435002
MSD	Chromium	341866	META8512	Precision		**2**	0	20		2028435002
MS	Chromium	341867	META8512	Accuracy		**104**	77.3	113		2028411001
MB	Copper	341863	META8512	Result	***ND***				*0.0014 mg/L*	
LCS	Copper	341864	META8512	Accuracy		**102**	85	115		
MS	Copper	341865	META8512	Accuracy		**102**	80.1	121		2028435002
MSD	Copper	341866	META8512	Accuracy		**104**	80.1	121		2028435002
MSD	Copper	341866	META8512	Precision		**1.9**	0	20		2028435002
MS	Copper	341867	META8512	Accuracy		**106**	80.1	121		2028411001
MB	Zinc	341863	META8512	Result	***ND***				*0.010 mg/L*	
LCS	Zinc	341864	META8512	Accuracy		**104**	85	115		
MS	Zinc	341865	META8512	Accuracy		**102**	70	130		2028435002
MSD	Zinc	341866	META8512	Accuracy		**105**	70	130		2028435002
MSD	Zinc	341866	META8512	Precision		**2.9**	0	20		2028435002
MS	Zinc	341867	META8512	Accuracy		**104**	70	130		2028411001
EPA 350.1										
MB	Ammonia, as N	341121	AUTO15792	Result	***ND***				*0.0090 mg/L*	
MS	Ammonia, as N	341122	AUTO15792	Accuracy		**101**	90	110		2028397001
MSD	Ammonia, as N	341123	AUTO15792	Accuracy		**100**	90	110		2028397001
MSD	Ammonia, as N	341123	AUTO15792	Precision		**1**	0	20		2028397001
LCS	Ammonia, as N	341124	AUTO15792	Accuracy		**98**	90	110		

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Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box Stormwater
Received: 7/24/07 11:55

[2028397]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	Method Blank Result	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	Detection Limit	Original Sample
MS	Ammonia, as N	341125	AUTO15792	Accuracy	**100**	90	110		2028411001
MSD	Ammonia, as N	341126	AUTO15792	Accuracy	**100**	90	110		2028411001
MSD	Ammonia, as N	341126	AUTO15792	Precision	**0**	0	20		2028411001
EPA 351.2									
MB	Total Kjeldahl Nitrogen	341047	AUTO15799	Result ***ND***				*0.045 mg/L*	
LCS	Total Kjeldahl Nitrogen	341048	AUTO15799	Accuracy	**106**	90	110		
MS	Total Kjeldahl Nitrogen	341049	AUTO15799	Accuracy	**81**	90	110		2028411001
MSD	Total Kjeldahl Nitrogen	341050	AUTO15799	Accuracy	**80**	90	110		2028411001
MSD	Total Kjeldahl Nitrogen	341050	AUTO15799	Precision	**1.2**	0	20		2028411001
EPA 353.2									
MMS	Nitrate/Nitrite as N	341897	AUTO15821	Accuracy	**78**	90	110		2028462001
MMSD	Nitrate/Nitrite as N	341898	AUTO15821	Accuracy	**80**	90	110		2028462001
MMSD	Nitrate/Nitrite as N	341898	AUTO15821	Precision	**2.5**	0	20		2028462001
EPA 365.1									
MB	Orthophosphate as P	340900	AUTO15780	Result ***ND***				*0.0019 mg/L*	
MS	Orthophosphate as P	340901	AUTO15780	Accuracy	**95**	90	110		2028397001
MSD	Orthophosphate as P	340902	AUTO15780	Accuracy	**96**	90	110		2028397001
MSD	Orthophosphate as P	340902	AUTO15780	Precision	**1**	0	20		2028397001
LCS	Orthophosphate as P	340903	AUTO15780	Accuracy	**102**	90	110		
Nitrate/Nitrite									
MB	Nitrate/Nitrite as N	341889	AUTO15821	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341890	AUTO15821	Accuracy	**91**	90	110		
MB	Nitrate/Nitrite as N	341891	AUTO15821	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341892	AUTO15821	Accuracy	**92**	90	110		
MB	Nitrate/Nitrite as N	341893	AUTO15821	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341894	AUTO15821	Accuracy	**100**	90	110		
MS	Nitrate/Nitrite as N	341899	AUTO15821	Accuracy	**99**	90	110		2028397001
MSD	Nitrate/Nitrite as N	341900	AUTO15821	Accuracy	**97**	90	110		2028397001
MSD	Nitrate/Nitrite as N	341900	AUTO15821	Precision	**2**	0	20		2028397001
MS	Nitrate/Nitrite as N	341901	AUTO15821	Accuracy	**92**	90	110		2028412007
MSD	Nitrate/Nitrite as N	341902	AUTO15821	Accuracy	**90**	90	110		2028412007
MSD	Nitrate/Nitrite as N	341902	AUTO15821	Precision	**2.2**	0	20		2028412007
MS	Nitrate/Nitrite as N	341903	AUTO15821	Accuracy	**100**	90	110		2028421001
MSD	Nitrate/Nitrite as N	341904	AUTO15821	Accuracy	**101**	90	110		2028421001
MSD	Nitrate/Nitrite as N	341904	AUTO15821	Precision	**1**	0	20		2028421001

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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box Stormwater
Received: 7/24/07 11:55

[2028397]

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*		% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate										
MS	Nitrate/Nitrite as N	341905	AUTO15821	Accuracy		**100**	90	110		2028479001
MSD	Nitrate/Nitrite as N	341906	AUTO15821	Accuracy		**101**	90	110		2028479001
MSD	Nitrate/Nitrite as N	341906	AUTO15821	Precision		**1**	0	20		2028479001
MS	Nitrate/Nitrite as N	341907	AUTO15821	Accuracy		**105**	90	110		2028507002
MSD	Nitrate/Nitrite as N	341908	AUTO15821	Accuracy		**106**	90	110		2028507002
MSD	Nitrate/Nitrite as N	341908	AUTO15821	Precision		**0.9**	0	20		2028507002
SM9222 D										
MB	Fecal Coliform	340993	MICR12042	Result	***ND***				*1.0 CFU/1*	
MB	Fecal Coliform	340994	MICR12042	Result	***ND***				*1.0 CFU/1*	
LCS	Fecal Coliform	340995	MICR12042	Accuracy		**100**	1	2000		
MB	Fecal Coliform	340996	MICR12042	Result	***ND***				*1.0 CFU/1*	
MB	Fecal Coliform	340997	MICR12042	Result	***ND***				*1.0 CFU/1*	
TP QC (Persulfate Digestion)										
MB	Total Phosphorus as P	341331	AUTO15806	Result	***ND***				*0.00090 mg/L*	
LCS	Total Phosphorus as P	341332	AUTO15806	Accuracy		**90**	90	110		
MS	Total Phosphorus as P	341333	AUTO15806	Accuracy		**103**	90	110		2028397001
MSD	Total Phosphorus as P	341334	AUTO15806	Accuracy		**102**	90	110		2028397001
MSD	Total Phosphorus as P	341334	AUTO15806	Precision		**0.98**	0	20		2028397001

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LABORATORIES, INC.
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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Date issued: August 14, 2007

To: Siaka Kone
SUTRON
6903 Visa Pkwy N #5
West Palm Beach, FL 33411

Client: SUTRON
Workorder ID: Lincoln/Parkway Baffle Boxes **[2028421]**
Received: 7/26/07 12:50

Dear Siaka Kone;

Analytical results presented in this report have been reviewed for compliance with the HARBOR BRANCH Environmental Laboratories Inc.'s (HBEL) Quality Systems Manual and have been determined to meet applicable Method guidelines and Standards referenced in the July 2003 National Environmental Laboratory Accreditation Program (NELAP) Quality Manual unless otherwise noted. The Analytical Results within these report pages reflect the values obtained from tests performed on Samples As Received by the laboratory unless indicated differently.

FDOH Safe Drinking Water Act, Clean Water Act and RCRA Certification #'s:

E96080, E83509, E85370, E84418

Questions regarding this report should be directed to the Report Signatory at (772) 465-2400, Ext. 285 referencing the HBEL Workorder ID [Number].

Respectfully submitted,

Cindy Cromer
Technical Director or Designee

HARBOR BRANCH
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5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Summary

Client: SUTRON
Workorder ID: Lincoln/Parkway Baffle Boxes **[2028421]**
Received: 7/26/07 12:50

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate

Method Narratives (If Applicable)

HBEL Sample Number	Sample ID	Analytical Method	Description

Quality Control Summary

Method	HBEL Batch	Analyte	Analytical Issue
EPA 351.2			
	AUTO15809		
	2028421004	Total Kjeldahl Nitrogen	Accuracy - Outside acceptance limits in the MS.
	2028421004	Total Kjeldahl Nitrogen	Accuracy - Outside acceptance limits in the MSD.

The above due to matrix effects. Accuracy demonstrated with other QC samples.

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CERTIFICATE OF ANALYSIS

[2028421]

Client: SUTRON *Workorder ID:* Lincoln/Parkway Baffle Boxes

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Laboratory ID: **2028421001** *Sampled:* 07/25/07 18:50 *Received:* 07/26/07 12:50											
Sample ID: **Lincoln Down Composite** *Matrix:* Water Results reported on Wet Weight Basis											
Total Suspended Solids		**31**	mg/L	0.7	2.8	EPA 160.2	WCGE27918		07/27/07 17:00	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8512	08/6/07 14:29	08/8/07 15:11	DM	E96080
Chromium		**0.0024 I**	mg/L	0.0018	0.0072	EPA 200.7	META8512	08/6/07 14:29	08/8/07 15:11	DM	E96080
Copper		**0.0058**	mg/L	0.0014	0.0056	EPA 200.7	META8512	08/6/07 14:29	08/8/07 15:11	DM	E96080
Zinc		**0.066**	mg/L	0.010	0.040	EPA 200.7	META8512	08/6/07 14:29	08/8/07 15:11	DM	E96080
Ammonia, as N		**0.0090 U**	mg/L	0.0090	0.036	EPA 350.1	AUTO15793		07/27/07 13:21	JL	E96080
Total Kjeldahl Nitrogen		**0.51**	mg/L	0.045	0.18	EPA 351.2	AUTO15809	07/31/07 10:45	07/31/07 17:03	DM	E96080
Total Nitrogen		**0.64**	mg/L	0.048	0.19	EPA 351.2	CALC5434			DH	E96080
Nitrate/Nitrite as N		**0.13**	mg/L	0.0075	0.030	EPA 353.2	AUTO15821		08/7/07 12:58	DM	E96080
Orthophosphate as P		**0.022**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15790		07/26/07 16:00	JL	E96080
Total Phosphorus as P		**0.12**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15806	07/30/07 10:43	07/30/07 16:26	JL	E96080
Fecal Coliform	B	**40000**	CFU/100mL	10000	10,000	SM9222 D	MICR12052		07/26/07 15:25	TR	E96080
Laboratory ID: **2028421002** *Sampled:* 07/25/07 18:25 *Received:* 07/26/07 12:50											
Sample ID: **Lincoln Up Composite** *Matrix:* Water Results reported on Wet Weight Basis											
Total Suspended Solids		**33**	mg/L	0.7	2.8	EPA 160.2	WCGE27918		07/27/07 17:00	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8518	08/9/07 11:00	08/10/07 16:15	DM	E96080
Chromium		**0.0023 I**	mg/L	0.0018	0.0072	EPA 200.7	META8518	08/9/07 11:00	08/10/07 16:15	DM	E96080
Copper		**0.0068**	mg/L	0.0014	0.0056	EPA 200.7	META8518	08/9/07 11:00	08/10/07 16:15	DM	E96080
Zinc		**0.058**	mg/L	0.010	0.040	EPA 200.7	META8518	08/9/07 11:00	08/10/07 16:15	DM	E96080
Ammonia, as N		**0.022 I**	mg/L	0.0090	0.036	EPA 350.1	AUTO15793		07/27/07 13:21	JL	E96080
Total Kjeldahl Nitrogen		**0.38**	mg/L	0.045	0.18	EPA 351.2	AUTO15809	07/31/07 10:45	07/31/07 17:04	DM	E96080
Total Nitrogen		**0.53**	mg/L	0.048	0.19	EPA 351.2	CALC5434			DH	E96080
Nitrate/Nitrite as N		**0.15**	mg/L	0.0075	0.030	EPA 353.2	AUTO15821		08/7/07 12:59	DM	E96080
Orthophosphate as P		**0.020**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15790		07/26/07 16:00	JL	E96080
Total Phosphorus as P		**0.10**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15806	07/30/07 10:43	07/30/07 16:26	JL	E96080
Fecal Coliform	B	**20000**	CFU/100mL	10000	10,000	SM9222 D	MICR12052		07/26/07 15:25	TR	E96080

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CERTIFICATE OF ANALYSIS

[2028421]

Client: SUTRON *Workorder ID:* Lincoln/Parkway Baffle Boxes

Laboratory ID: ***2028421003*** *Sampled:* *07/25/07 15:30* *Received:* *07/26/07 12:50*
Sample ID: ***Parkway Down Composite*** *Matrix:* *Water* Results reported on Wet Weight Basis

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Total Suspended Solids		**5.1**	mg/L	0.7	2.8	EPA 160.2	WCGE27918		07/27/07 17:00	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8518	08/9/07 11:00	08/10/07 16:34	DM	E96080
Chromium		**0.0018 U**	mg/L	0.0018	0.0072	EPA 200.7	META8518	08/9/07 11:00	08/10/07 16:34	DM	E96080
Copper		**0.0036 I**	mg/L	0.0014	0.0056	EPA 200.7	META8518	08/9/07 11:00	08/10/07 16:34	DM	E96080
Zinc		**0.022 I**	mg/L	0.010	0.040	EPA 200.7	META8518	08/9/07 11:00	08/10/07 16:34	DM	E96080
Ammonia, as N		**0.017 I**	mg/L	0.0090	0.036	EPA 350.1	AUTO15794		07/27/07 13:21	JL	E96080
Total Kjeldahl Nitrogen		**0.59**	mg/L	0.045	0.18	EPA 351.2	AUTO15809	07/31/07 10:45	07/31/07 17:04	DM	E96080
Total Nitrogen		**1.1**	mg/L	0.048	0.19	EPA 351.2	CALC5434			DH	E96080
Nitrate/Nitrite as N		**0.54**	mg/L	0.0075	0.030	EPA 353.2	AUTO15821		08/7/07 12:59	DM	E96080
Orthophosphate as P		**0.45**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15790		07/26/07 16:00	JL	E96080
Total Phosphorus as P		**0.57**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15806	07/30/07 10:43	07/30/07 16:26	JL	E96080
Fecal Coliform	B	**10000 I**	CFU/100mL	10000	10,000	SM9222 D	MICR12052		07/26/07 15:25	TR	E96080

Laboratory ID: ***2028421004*** *Sampled:* *07/25/07 15:55* *Received:* *07/26/07 12:50*
Sample ID: ***Parkway Up Composite*** *Matrix:* *Water* Results reported on Wet Weight Basis

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Total Suspended Solids		**4.5**	mg/L	0.7	2.8	EPA 160.2	WCGE27918		07/27/07 17:00	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8518	08/9/07 11:00	08/10/07 16:41	DM	E96080
Chromium		**0.0018 U**	mg/L	0.0018	0.0072	EPA 200.7	META8518	08/9/07 11:00	08/10/07 16:41	DM	E96080
Copper		**0.0016 I**	mg/L	0.0014	0.0056	EPA 200.7	META8518	08/9/07 11:00	08/10/07 16:41	DM	E96080
Zinc		**0.027 I**	mg/L	0.010	0.040	EPA 200.7	META8518	08/9/07 11:00	08/10/07 16:41	DM	E96080
Ammonia, as N		**0.044**	mg/L	0.0090	0.036	EPA 350.1	AUTO15794		07/27/07 13:21	JL	E96080
Total Kjeldahl Nitrogen		**0.40**	mg/L	0.045	0.18	EPA 351.2	AUTO15809	07/31/07 10:45	07/31/07 17:05	DM	E96080
Total Nitrogen		**0.73**	mg/L	0.048	0.19	EPA 351.2	CALC5434			DH	E96080
Nitrate/Nitrite as N		**0.34**	mg/L	0.0075	0.030	EPA 353.2	AUTO15821		08/7/07 13:00	DM	E96080
Orthophosphate as P		**0.16**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15790		07/26/07 16:00	JL	E96080
Total Phosphorus as P		**0.30**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15806	07/30/07 10:43	07/30/07 16:26	JL	E96080
Fecal Coliform	B	**30000**	CFU/100mL	10000	10,000	SM9222 D	MICR12052		07/26/07 15:25	TR	E96080

[1]Result Qualifiers: U = Not Detected I = Analyte detected between the Laboratory Method Detection Limit and Laboratory Reporting Limit
Applicable Florida Department of Environmental Protection Qualifiers defined below. Statement of Estimated Uncertainty available upon request.

B Results based upon colony counts outside of the acceptable range.

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 US 1 North, Fort Pierce, FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Chain-of-Custody
and
Agreement to Perform Services

USE BALL POINT PEN
PRESS HARD
COMPLETELY FILL OUT
ALL NON GREYED AREAS
PRINT LEGIBLY

Laboratory not responsible for omitted information

____FDOH # E96080
5600 U.S. 1 North
Fort Pierce, FL 34946

____FDOH # E85370
307 Coolidge Avenue
Lehigh Acres, FL 33936

____FDOH # E83509
4155 St. Johns Pkwy.
Suite 1300
Sanford, FL 32771

____FDOH # E84418
16331 Cortez Blvd.
Brooksville, FL 34601

ACCREDITED IN ACCORDANCE WITH nelac

Method(s) of Shipment: Self

Company: Sutron
Address: 6903 Vista Parkway N Suite #5
WPB, FL Zip: 33411
Phone: 561 697-8151 Fax: 561 697 8151
e-mail: skone@sutron.com
Client Contact: Siaka Kone
Project Name: Battle Box
Sampled By: Forrest Jay

X Standard Laboratory Turn Around Time
Or
Rush in ____ Business Days
Requires Laboratory Approval

For Lab Use Only

Temperature Checked	Custody Seals Intact	pH Checked
-1.1°C (Y) N	Y N ✓	Y N

LAB # 2028421

PRESERVATIVE: / N S S /

Preservation Key
H=Hydrochloric Acid, P=Phosphoric Acid, N=Nitric Acid, ST=Sodium Thiosulfate, S=Sulfuric Acid, SH=Sodium Hydroxide, U=Unpreserved

LAB ID	COLLECTION DATE	COLLECTION TIME	Sample Type*	MATRIX**	# Containers	SAMPLE DESCRIPTION As Will Appear On Report	A TSS	B Cd, Cr, Cu Zn	C NOx, TKN NH3, TN, TP	D FC	E OPO4				COMMENTS
001	7/25/07	18:50	C	SW	5	Lincoln Down	/	/	/	/	/				
2	7/25/07	18:25	C	SW	5	Lincoln Up	/	/	/	/	/				
3	7/25/07	15:30	C	SW	5	Parkway Down	/	/	/	/	/				
4	7/25/07	15:58	C	SW	5	Parkway Up	/	/	/	/	/				

* Sample Type: G=Grab C=Composite
** Matrix: S=Solid SL=Sludge DW=Drinking Water GW=Ground Water SW=Surface Water WW=Wastewater M=Marine

RELINQUISHED BY	RELINQUISHED BY	RELINQUISHED BY
DATE/TIME 7/26/07 12:50	DATE/TIME	DATE/TIME
RECEIVED BY	RECEIVED BY	RECEIVED FOR HBEL CUSTODY BY
DATE/TIME	DATE/TIME	DATE/TIME 7-26-07 1250

Report Page 5 of 5

Distribution: WHITE with REPORT; YELLOW for FILE; PINK to CLIENT; GOLD for SAMPLER

CHAIN PAGE 1 of 1

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Lincoln/Parkway Baffle Boxes
Received: 7/26/07 12:50

[2028421]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
EPA 160.2									
MB	Total Suspended Solids	341093	WCGE27918	Result ***ND***				*0.7 mg/L*	
DUP	Total Suspended Solids	341094	WCGE27918	Precision	**0**	0	10		2028379005
LCS	Total Suspended Solids	341095	WCGE27918	Accuracy	**99**	85	115		
DUP	Total Suspended Solids	341096	WCGE27918	Precision	**3.7**	0	10		2028379007
EPA 200.7									
MB	Cadmium	341863	META8512	Result ***ND***				*0.00070 mg/L*	
LCS	Cadmium	341864	META8512	Accuracy	**98**	85	115		
MS	Cadmium	341865	META8512	Accuracy	**97**	70	114		2028435002
MSD	Cadmium	341866	META8512	Accuracy	**99**	70	114		2028435002
MSD	Cadmium	341866	META8512	Precision	**2**	0	20		2028435002
MS	Cadmium	341867	META8512	Accuracy	**100**	70	114		2028411001
MB	Chromium	341863	META8512	Result ***ND***				*0.0018 mg/L*	
LCS	Chromium	341864	META8512	Accuracy	**102**	85	115		
MS	Chromium	341865	META8512	Accuracy	**100**	77.3	113		2028435002
MSD	Chromium	341866	META8512	Accuracy	**102**	77.3	113		2028435002
MSD	Chromium	341866	META8512	Precision	**2**	0	20		2028435002
MS	Chromium	341867	META8512	Accuracy	**104**	77.3	113		2028411001
MB	Copper	341863	META8512	Result ***ND***				*0.0014 mg/L*	
LCS	Copper	341864	META8512	Accuracy	**102**	85	115		
MS	Copper	341865	META8512	Accuracy	**102**	80.1	121		2028435002
MSD	Copper	341866	META8512	Accuracy	**104**	80.1	121		2028435002
MSD	Copper	341866	META8512	Precision	**1.9**	0	20		2028435002
MS	Copper	341867	META8512	Accuracy	**106**	80.1	121		2028411001
MB	Zinc	341863	META8512	Result ***ND***				*0.010 mg/L*	
LCS	Zinc	341864	META8512	Accuracy	**104**	85	115		
MS	Zinc	341865	META8512	Accuracy	**102**	70	130		2028435002
MSD	Zinc	341866	META8512	Accuracy	**105**	70	130		2028435002
MSD	Zinc	341866	META8512	Precision	**2.9**	0	20		2028435002
MS	Zinc	341867	META8512	Accuracy	**104**	70	130		2028411001
MB	Cadmium	342147	META8518	Result ***ND***				*0.00070 mg/L*	
LCS	Cadmium	342148	META8518	Accuracy	**97**	85	115		
MS	Cadmium	342149	META8518	Accuracy	**96**	70	114		2028421002
MSD	Cadmium	342150	META8518	Accuracy	**98**	70	114		2028421002
MSD	Cadmium	342150	META8518	Precision	**2.1**	0	20		2028421002
MB	Chromium	342147	META8518	Result ***ND***				*0.0018 mg/L*	

HARBOR BRANCH
ENVIRONMENTAL
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Quality Control Report

Client: SUTRON
Workorder ID: Lincoln/Parkway Baffle Boxes
Received: 7/26/07 12:50

[2028421]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
LCS	Chromium	342148	META8518	Accuracy	**99**	85	115		
MS	Chromium	342149	META8518	Accuracy	**99**	77.3	113		2028421002
MSD	Chromium	342150	META8518	Accuracy	**101**	77.3	113		2028421002
MSD	Chromium	342150	META8518	Precision	**2**	0	20		2028421002
MB	Copper	342147	META8518	Result ***ND***				*0.0014 mg/L*	
LCS	Copper	342148	META8518	Accuracy	**99**	85	115		
MS	Copper	342149	META8518	Accuracy	**100**	80.1	121		2028421002
MSD	Copper	342150	META8518	Accuracy	**102**	80.1	121		2028421002
MSD	Copper	342150	META8518	Precision	**2**	0	20		2028421002
MB	Zinc	342147	META8518	Result ***ND***				*0.010 mg/L*	
LCS	Zinc	342148	META8518	Accuracy	**102**	85	115		
MS	Zinc	342149	META8518	Accuracy	**100**	70	130		2028421002
MSD	Zinc	342150	META8518	Accuracy	**102**	70	130		2028421002
MSD	Zinc	342150	META8518	Precision	**2**	0	20		2028421002
EPA 350.1									
MB	Ammonia, as N	341127	AUTO15793	Result ***ND***				*0.0090 mg/L*	
MS	Ammonia, as N	341128	AUTO15793	Accuracy	**102**	90	110		2306040005
MSD	Ammonia, as N	341129	AUTO15793	Accuracy	**102**	90	110		2306040005
MSD	Ammonia, as N	341129	AUTO15793	Precision	**0**	0	20		2306040005
LCS	Ammonia, as N	341130	AUTO15793	Accuracy	**96**	90	110		
MS	Ammonia, as N	341131	AUTO15793	Accuracy	**106**	90	110		2028421001
MSD	Ammonia, as N	341132	AUTO15793	Accuracy	**105**	90	110		2028421001
MSD	Ammonia, as N	341132	AUTO15793	Precision	**0.95**	0	20		2028421001
MB	Ammonia, as N	341133	AUTO15794	Result ***ND***				*0.0090 mg/L*	
MS	Ammonia, as N	341134	AUTO15794	Accuracy	**98**	90	110		2306053002
MSD	Ammonia, as N	341135	AUTO15794	Accuracy	**98**	90	110		2306053002
MSD	Ammonia, as N	341135	AUTO15794	Precision	**0**	0	20		2306053002
LCS	Ammonia, as N	341136	AUTO15794	Accuracy	**93**	90	110		
MS	Ammonia, as N	341169	AUTO15794	Accuracy	**95**	90	110		2028426003
MSD	Ammonia, as N	341170	AUTO15794	Accuracy	**95**	90	110		2028426003
MSD	Ammonia, as N	341170	AUTO15794	Precision	**0**	0	20		2028426003
EPA 351.2									
MB	Total Kjeldahl Nitrogen	341424	AUTO15809	Result ***ND***				*0.045 mg/L*	
LCS	Total Kjeldahl Nitrogen	341425	AUTO15809	Accuracy	**100**	90	110		
MMS	Total Kjeldahl Nitrogen	341426	AUTO15809	Accuracy	**80**	90	110		2028409001

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ENVIRONMENTAL
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Quality Control Report

Client: SUTRON
Workorder ID: Lincoln/Parkway Baffle Boxes
Received: 7/26/07 12:50

[2028421]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MS	Total Kjeldahl Nitrogen	341427	AUTO15809	Accuracy	**76**	90	110		2028421004
MSD	Total Kjeldahl Nitrogen	341428	AUTO15809	Accuracy	**80**	90	110		2028421004
MSD	Total Kjeldahl Nitrogen	341428	AUTO15809	Precision	**5.1**	0	20		2028421004
MMSD	Total Kjeldahl Nitrogen	341429	AUTO15809	Accuracy	**49**	90	110		2028409001
MMSD	Total Kjeldahl Nitrogen	341429	AUTO15809	Precision	**48**	0	20		2028409001
EPA 353.2									
MMS	Nitrate/Nitrite as N	341897	AUTO15821	Accuracy	**78**	90	110		2028462001
MMSD	Nitrate/Nitrite as N	341898	AUTO15821	Accuracy	**80**	90	110		2028462001
MMSD	Nitrate/Nitrite as N	341898	AUTO15821	Precision	**2.5**	0	20		2028462001
EPA 365.1									
MB	Orthophosphate as P	341100	AUTO15790	Result ***ND***				*0.0019 mg/L*	
MS	Orthophosphate as P	341101	AUTO15790	Accuracy	**97**	90	110		2028412001
MSD	Orthophosphate as P	341102	AUTO15790	Accuracy	**98**	90	110		2028412001
MSD	Orthophosphate as P	341102	AUTO15790	Precision	**1**	0	20		2028412001
LCS	Orthophosphate as P	341103	AUTO15790	Accuracy	**100**	90	110		
MS	Orthophosphate as P	341104	AUTO15790	Accuracy	**104**	90	110		2028421001
MSD	Orthophosphate as P	341105	AUTO15790	Accuracy	**104**	90	110		2028421001
MSD	Orthophosphate as P	341105	AUTO15790	Precision	**0**	0	20		2028421001
EPA 365.4									
MB	Total Phosphorus as P	341424	AUTO15808	Result ***ND***				*0.012 mg/L*	
LCS	Total Phosphorus as P	341425	AUTO15808	Accuracy	**102**	72	132		
MMS	Total Phosphorus as P	341426	AUTO15808	Accuracy	**111**	72	132		2028409001
MS	Total Phosphorus as P	341427	AUTO15808	Accuracy	**101**	72	132		2028421004
MSD	Total Phosphorus as P	341428	AUTO15808	Accuracy	**101**	72	132		2028421004
MSD	Total Phosphorus as P	341428	AUTO15808	Precision	**0**	0	20		2028421004
MMSD	Total Phosphorus as P	341429	AUTO15808	Accuracy	**109**	72	132		2028409001
MMSD	Total Phosphorus as P	341429	AUTO15808	Precision	**1.8**	0	20		2028409001
Nitrate/Nitrite									
MB	Nitrate/Nitrite as N	341889	AUTO15821	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341890	AUTO15821	Accuracy	**91**	90	110		
MB	Nitrate/Nitrite as N	341891	AUTO15821	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341892	AUTO15821	Accuracy	**92**	90	110		
MB	Nitrate/Nitrite as N	341893	AUTO15821	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341894	AUTO15821	Accuracy	**100**	90	110		
MS	Nitrate/Nitrite as N	341899	AUTO15821	Accuracy	**99**	90	110		2028397001

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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Lincoln/Parkway Baffle Boxes
Received: 7/26/07 12:50

[2028421]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MSD	Nitrate/Nitrite as N	341900	AUTO15821	Accuracy	**97**	90	110		2028397001
MSD	Nitrate/Nitrite as N	341900	AUTO15821	Precision	**2**	0	20		2028397001
MS	Nitrate/Nitrite as N	341901	AUTO15821	Accuracy	**92**	90	110		2028412007
MSD	Nitrate/Nitrite as N	341902	AUTO15821	Accuracy	**90**	90	110		2028412007
MSD	Nitrate/Nitrite as N	341902	AUTO15821	Precision	**2.2**	0	20		2028412007
MS	Nitrate/Nitrite as N	341903	AUTO15821	Accuracy	**100**	90	110		2028421001
MSD	Nitrate/Nitrite as N	341904	AUTO15821	Accuracy	**101**	90	110		2028421001
MSD	Nitrate/Nitrite as N	341904	AUTO15821	Precision	**1**	0	20		2028421001
MS	Nitrate/Nitrite as N	341905	AUTO15821	Accuracy	**100**	90	110		2028479001
MSD	Nitrate/Nitrite as N	341906	AUTO15821	Accuracy	**101**	90	110		2028479001
MSD	Nitrate/Nitrite as N	341906	AUTO15821	Precision	**1**	0	20		2028479001
MS	Nitrate/Nitrite as N	341907	AUTO15821	Accuracy	**105**	90	110		2028507002
MSD	Nitrate/Nitrite as N	341908	AUTO15821	Accuracy	**106**	90	110		2028507002
MSD	Nitrate/Nitrite as N	341908	AUTO15821	Precision	**0.9**	0	20		2028507002
SM9222 D									
MB	Fecal Coliform	341513	MICR12052	Result ***ND***				*1.0 CFU/1*	
MB	Fecal Coliform	341514	MICR12052	Result ***ND***				*1.0 CFU/1*	
LCS	Fecal Coliform	341515	MICR12052	Accuracy	**100**	1	2000		
TP QC (Persulfate Digestion)									
MB	Total Phosphorus as P	341331	AUTO15806	Result ***ND***				*0.00090 mg/L*	
LCS	Total Phosphorus as P	341332	AUTO15806	Accuracy	**90**	90	110		
MS	Total Phosphorus as P	341333	AUTO15806	Accuracy	**103**	90	110		2028397001
MSD	Total Phosphorus as P	341334	AUTO15806	Accuracy	**102**	90	110		2028397001
MSD	Total Phosphorus as P	341334	AUTO15806	Precision	**0.98**	0	20		2028397001

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Date issued: August 15, 2007

To: Siaka Kone
SUTRON
6903 Visa Pkwy N #5
West Palm Beach, FL 33411

Client: SUTRON
Workorder ID: Lincoln Baffle Box **[2028465]**
Received: 7/31/07 11:40

Dear Siaka Kone;

Analytical results presented in this report have been reviewed for compliance with the HARBOR BRANCH Environmental Laboratories Inc.'s (HBEL) Quality Systems Manual and have been determined to meet applicable Method guidelines and Standards referenced in the July 2003 National Environmental Laboratory Accreditation Program (NELAP) Quality Manual unless otherwise noted. The Analytical Results within these report pages reflect the values obtained from tests performed on Samples As Received by the laboratory unless indicated differently.

FDOH Safe Drinking Water Act, Clean Water Act and RCRA Certification #'s:

E96080, E83509, E85370, E84418

Questions regarding this report should be directed to the Report Signatory at (772) 465-2400, Ext. 285 referencing the HBEL Workorder ID [Number].

Respectfully submitted,

Cindy Cromer
Technical Director or Designee

HARBOR BRANCH
ENVIRONMENTAL
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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Summary

Client: SUTRON
Workorder ID: Lincoln Baffle Box **[2028465]**
Received: 7/31/07 11:40

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate

Method Narratives (If Applicable)

HBEL Sample Number	Sample ID	Analytical Method	Description

Quality Control Summary

Method	HBEL Batch	Analyte	Analytical Issue

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

CERTIFICATE OF ANALYSIS

[2028465]

Client: SUTRON *Workorder ID:* Lincoln Baffle Box

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Laboratory ID: ***2028465001*** *Sample ID:* ***Lincoln Down Composite***						*Sampled: 07/30/07 19:18* *Received: 07/31/07 11:40* *Matrix: Water* Results reported on Wet Weight Basis					
Total Suspended Solids		**27**	mg/L	0.7	2.8	EPA 160.2	WCGE27946		07/31/07 15:45	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8518	08/9/07 11:00	08/10/07 19:10	DM	E96080
Chromium		**0.0021 I**	mg/L	0.0018	0.0072	EPA 200.7	META8518	08/9/07 11:00	08/10/07 19:10	DM	E96080
Copper		**0.0036 I**	mg/L	0.0014	0.0056	EPA 200.7	META8518	08/9/07 11:00	08/10/07 19:10	DM	E96080
Zinc		**0.063**	mg/L	0.010	0.040	EPA 200.7	META8518	08/9/07 11:00	08/10/07 19:10	DM	E96080
Ammonia, as N		**0.068**	mg/L	0.0090	0.036	EPA 350.1	AUTO15810		08/1/07 14:31	JL	E96080
Total Kjeldahl Nitrogen		**0.69**	mg/L	0.045	0.18	EPA 351.2	AUTO15820	08/6/07 11:08	08/6/07 15:28	DM	E96080
Total Nitrogen		**0.81**	mg/L	0.048	0.19	EPA 351.2	CALC5434			DH	E96080
Nitrate/Nitrite as N		**0.13**	mg/L	0.0075	0.030	EPA 353.2	AUTO15821		08/7/07 13:07	DM	E96080
Orthophosphate as P		**0.018**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15807		07/31/07 13:12	JL	E96080
Total Phosphorus as P		**0.20**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15824	08/7/07 12:30	08/7/07 15:48	JL	E96080
Fecal Coliform	B	**7000**	CFU/100mL	1000	1,000	SM9222 D	MICR12054		07/31/07 15:10	TR	E96080
Laboratory ID: ***2028465002*** *Sample ID:* ***Lincoln Up Composite***						*Sampled: 07/30/07 18:58* *Received: 07/31/07 11:40* *Matrix: Water* Results reported on Wet Weight Basis					
Total Suspended Solids		**33**	mg/L	0.7	2.8	EPA 160.2	WCGE27946		07/31/07 15:45	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8524	08/14/07 17:18	08/15/07 1:28	DM	E96080
Chromium		**0.0023 I**	mg/L	0.0018	0.0072	EPA 200.7	META8524	08/14/07 17:18	08/15/07 1:28	DM	E96080
Copper		**0.0072**	mg/L	0.0014	0.0056	EPA 200.7	META8524	08/14/07 17:18	08/15/07 1:28	DM	E96080
Zinc		**0.069**	mg/L	0.010	0.040	EPA 200.7	META8524	08/14/07 17:18	08/15/07 1:28	DM	E96080
Ammonia, as N		**0.067**	mg/L	0.0090	0.036	EPA 350.1	AUTO15810		08/1/07 14:31	JL	E96080
Total Kjeldahl Nitrogen		**0.57**	mg/L	0.045	0.18	EPA 351.2	AUTO15820	08/6/07 11:08	08/6/07 15:29	DM	E96080
Total Nitrogen		**0.72**	mg/L	0.048	0.19	EPA 351.2	CALC5434			DH	E96080
Nitrate/Nitrite as N		**0.15**	mg/L	0.0075	0.030	EPA 353.2	AUTO15821		08/7/07 13:08	DM	E96080
Orthophosphate as P		**0.028**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15807		07/31/07 13:12	JL	E96080
Total Phosphorus as P		**0.20**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15824	08/7/07 12:30	08/7/07 15:48	JL	E96080
Fecal Coliform	B	**1000 I**	CFU/100mL	1000	1,000	SM9222 D	MICR12054		07/31/07 15:10	TR	E96080

[1]Result Qualifiers: U = Not Detected I = Analyte detected between the Laboratory Method Detection Limit and Laboratory Reporting Limit
Applicable Florida Department of Environmental Protection Qualifiers defined below. Statement of Estimated Uncertainty available upon request.

B Results based upon colony counts outside of the acceptable range.

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 US 1 North, Fort Pierce, FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Chain-of-Custody
and
Agreement to Perform Services

USE BALL POINT PEN
PRESS HARD
COMPLETELY FILL OUT
ALL NON GREYED AREAS
PRINT LEGIBLY

Laboratory not responsible for omitted information

____FDOH # E96080
5600 U.S. 1 North
Fort Pierce, FL 34946

____FDOH # E85370
307 Coolidge Avenue
Lehigh Acres, FL 33936

____FDOH # E83509
4155 St. Johns Pkwy.
Suite 1300
Sanford, FL 32771

____FDOH # E84418
16331 Cortez Blvd.
Brooksville, FL 34601

ACCREDITED IN ACCORDANCE WITH nelac

Company: Sutron
Address: 6903 Vista Parkway North
Suite 5 WPB, FL Zip: 33411
Phone: 5616978151 Fax: 5616978153
Client Contact: Siaka Kone
Project Name: Baffle Box
Sampled By: Forrest Jay

Method(s) of Shipment: self

e-mail: skone@sutron.com

X Standard Laboratory Turn Around Time
Or
Rush in ____ Business Days
Requires Laboratory Approval

For Lab Use Only

Temperature Checked	Custody Seals Intact	pH Checked
-1.1°C		
Y N	Y N N/A	Y N

LAB # 2028465

PRESERVATIVE							
/	N	S	S	/			

ANALYSES REQUESTED							
A	B	C	D	E			
TSS	Cd Cr Cu Zn	Nit, TKN, NH3, TN TP	FC	OPO4			

Preservation Key
H=Hydrochloric Acid P=Phosphoric Acid
N=Nitric Acid ST=Sodium Thiosulfate
S=Sulfuric Acid
SH=Sodium Hydroxide U=Unpreserved

LAB ID	COLLECTION DATE	COLLECTION TIME	Sample Type*	MATRIX**	# Containers	SAMPLE DESCRIPTION As Will Appear On Report	A	B	C	D	E				COMMENTS
001	7/30/07	19:18	C	SW	5	Lincoln Down	1	1	1	1	1				
2	7/30/07	18:57	C	SW	5	Lincoln Up	1	1	1	1	1				

* Sample Type: G=Grab C=Composite
** Matrix: S=Solid SL=Sludge DW=Drinking Water GW=Ground Water SW=Surface Water WW=Wastewater M=Marine

RELINQUISHED BY [signature]	RELINQUISHED BY	RELINQUISHED BY
DATE/TIME 7/31/07 11:40	DATE/TIME	DATE/TIME
RECEIVED BY	RECEIVED BY	RECEIVED FOR HBEL CUSTODY BY [signature]
DATE/TIME	DATE/TIME	DATE/TIME 7.31.07 1140

Report Page 4 of 4

Distribution: WHITE with REPORT; YELLOW for FILE; PINK to CLIENT; GOLD for SAMPLER

CHAIN PAGE 1 of 1

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 7/31/07 11:40

[2028465]

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number		*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate										
EPA 160.2										
MB	Total Suspended Solids	341456	WCGE27946	Result	*ND*				*0.7 mg/L*	
LCS	Total Suspended Solids	341457	WCGE27946	Accuracy		**99**	85	115		
DUP	Total Suspended Solids	341458	WCGE27946	Precision		**2**	0	10		2028379009
DUP	Total Suspended Solids	341459	WCGE27946	Precision		**1.3**	0	10		2028438003
DUP	Total Suspended Solids	341460	WCGE27946	Precision		**1.3**	0	10		2028438003
EPA 200.7										
MB	Cadmium	342147	META8518	Result	*ND*				*0.00070 mg/L*	
LCS	Cadmium	342148	META8518	Accuracy		**97**	85	115		
MS	Cadmium	342149	META8518	Accuracy		**96**	70	114		2028421002
MSD	Cadmium	342150	META8518	Accuracy		**98**	70	114		2028421002
MSD	Cadmium	342150	META8518	Precision		**2.1**	0	20		2028421002
MB	Chromium	342147	META8518	Result	*ND*				*0.0018 mg/L*	
LCS	Chromium	342148	META8518	Accuracy		**99**	85	115		
MS	Chromium	342149	META8518	Accuracy		**99**	77.3	113		2028421002
MSD	Chromium	342150	META8518	Accuracy		**101**	77.3	113		2028421002
MSD	Chromium	342150	META8518	Precision		**2**	0	20		2028421002
MB	Copper	342147	META8518	Result	*ND*				*0.0014 mg/L*	
LCS	Copper	342148	META8518	Accuracy		**99**	85	115		
MS	Copper	342149	META8518	Accuracy		**100**	80.1	121		2028421002
MSD	Copper	342150	META8518	Accuracy		**102**	80.1	121		2028421002
MSD	Copper	342150	META8518	Precision		**2**	0	20		2028421002
MB	Zinc	342147	META8518	Result	*ND*				*0.010 mg/L*	
LCS	Zinc	342148	META8518	Accuracy		**102**	85	115		
MS	Zinc	342149	META8518	Accuracy		**100**	70	130		2028421002
MSD	Zinc	342150	META8518	Accuracy		**102**	70	130		2028421002
MSD	Zinc	342150	META8518	Precision		**2**	0	20		2028421002
MB	Cadmium	342462	META8524	Result	*ND*				*0.00070 mg/L*	
LCS	Cadmium	342463	META8524	Accuracy		**95**	85	115		
MS	Cadmium	342464	META8524	Accuracy		**96**	70	114		2028465002
MSD	Cadmium	342465	META8524	Accuracy		**96**	70	114		2028465002
MSD	Cadmium	342465	META8524	Precision		**0**	0	20		2028465002
MS	Cadmium	342466	META8524	Accuracy		**96**	70	114		2129222001
MB	Chromium	342462	META8524	Result	*ND*				*0.0018 mg/L*	
LCS	Chromium	342463	META8524	Accuracy		**98**	85	115		
MS	Chromium	342464	META8524	Accuracy		**100**	77.3	113		2028465002

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ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 7/31/07 11:40

[2028465]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MSD	Chromium	342465	META8524	Accuracy	**100**	77.3	113		2028465002
MSD	Chromium	342465	META8524	Precision	**0**	0	20		2028465002
MB	Copper	342462	META8524	Result ***ND***				*0.0014 mg/L*	
LCS	Copper	342463	META8524	Accuracy	**98**	85	115		
MS	Copper	342464	META8524	Accuracy	**101**	80.1	121		2028465002
MSD	Copper	342465	META8524	Accuracy	**100**	80.1	121		2028465002
MSD	Copper	342465	META8524	Precision	**1**	0	20		2028465002
MS	Copper	342466	META8524	Accuracy	**100**	80.1	121		2129222001
MB	Zinc	342462	META8524	Result ***ND***				*0.010 mg/L*	
LCS	Zinc	342463	META8524	Accuracy	**99**	85	115		
MS	Zinc	342464	META8524	Accuracy	**100**	70	130		2028465002
MSD	Zinc	342465	META8524	Accuracy	**99**	70	130		2028465002
MSD	Zinc	342465	META8524	Precision	**1**	0	20		2028465002
MS	Zinc	342466	META8524	Accuracy	**98**	70	130		2129222001
EPA 350.1									
MB	Ammonia, as N	341534	AUTO15810	Result ***ND***				*0.0090 mg/L*	
MS	Ammonia, as N	341535	AUTO15810	Accuracy	**102**	90	110		2129202006
MSD	Ammonia, as N	341536	AUTO15810	Accuracy	**103**	90	110		2129202006
MSD	Ammonia, as N	341536	AUTO15810	Precision	**0.98**	0	20		2129202006
LCS	Ammonia, as N	341537	AUTO15810	Accuracy	**95**	90	110		
MS	Ammonia, as N	341538	AUTO15810	Accuracy	**106**	90	110		2028465001
MSD	Ammonia, as N	341539	AUTO15810	Accuracy	**106**	90	110		2028465001
MSD	Ammonia, as N	341539	AUTO15810	Precision	**0**	0	20		2028465001
EPA 351.2									
MB	Total Kjeldahl Nitrogen	341817	AUTO15820	Result ***ND***				*0.045 mg/L*	
LCS	Total Kjeldahl Nitrogen	341818	AUTO15820	Accuracy	**93**	90	110		
MMS	Total Kjeldahl Nitrogen	341819	AUTO15820	Accuracy	**95**	90	110		2028462001
MMSD	Total Kjeldahl Nitrogen	341820	AUTO15820	Accuracy	**93**	90	110		2028462001
MMSD	Total Kjeldahl Nitrogen	341820	AUTO15820	Precision	**2.1**	0	20		2028462001
MS	Total Kjeldahl Nitrogen	341821	AUTO15820	Accuracy	**87**	90	110		2028512001
MSD	Total Kjeldahl Nitrogen	341822	AUTO15820	Accuracy	**88**	90	110		2028512001
MSD	Total Kjeldahl Nitrogen	341822	AUTO15820	Precision	**1.1**	0	20		2028512001
EPA 353.2									
MMS	Nitrate/Nitrite as N	341897	AUTO15821	Accuracy	**78**	90	110		2028462001
MMSD	Nitrate/Nitrite as N	341898	AUTO15821	Accuracy	**80**	90	110		2028462001

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Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 7/31/07 11:40

[2028465]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number		*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MMSD	Nitrate/Nitrite as N	341898	AUTO15821	Precision		**2.5**	0	20		2028462001
EPA 365.1										
MB	Orthophosphate as P	341452	AUTO15807	Result	***ND***				*0.0019 mg/L*	
MS	Orthophosphate as P	341453	AUTO15807	Accuracy		**94**	90	110		2129202001
MSD	Orthophosphate as P	341454	AUTO15807	Accuracy		**94**	90	110		2129202001
MSD	Orthophosphate as P	341454	AUTO15807	Precision		**0**	0	20		2129202001
LCS	Orthophosphate as P	341455	AUTO15807	Accuracy		**96**	90	110		
Nitrate/Nitrite										
MB	Nitrate/Nitrite as N	341889	AUTO15821	Result	***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341890	AUTO15821	Accuracy		**91**	90	110		
MB	Nitrate/Nitrite as N	341891	AUTO15821	Result	***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341892	AUTO15821	Accuracy		**92**	90	110		
MB	Nitrate/Nitrite as N	341893	AUTO15821	Result	***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341894	AUTO15821	Accuracy		**100**	90	110		
MS	Nitrate/Nitrite as N	341899	AUTO15821	Accuracy		**99**	90	110		2028397001
MSD	Nitrate/Nitrite as N	341900	AUTO15821	Accuracy		**97**	90	110		2028397001
MSD	Nitrate/Nitrite as N	341900	AUTO15821	Precision		**2**	0	20		2028397001
MS	Nitrate/Nitrite as N	341901	AUTO15821	Accuracy		**92**	90	110		2028412007
MSD	Nitrate/Nitrite as N	341902	AUTO15821	Accuracy		**90**	90	110		2028412007
MSD	Nitrate/Nitrite as N	341902	AUTO15821	Precision		**2.2**	0	20		2028412007
MS	Nitrate/Nitrite as N	341903	AUTO15821	Accuracy		**100**	90	110		2028421001
MSD	Nitrate/Nitrite as N	341904	AUTO15821	Accuracy		**101**	90	110		2028421001
MSD	Nitrate/Nitrite as N	341904	AUTO15821	Precision		**1**	0	20		2028421001
MS	Nitrate/Nitrite as N	341905	AUTO15821	Accuracy		**100**	90	110		2028479001
MSD	Nitrate/Nitrite as N	341906	AUTO15821	Accuracy		**101**	90	110		2028479001
MSD	Nitrate/Nitrite as N	341906	AUTO15821	Precision		**1**	0	20		2028479001
MS	Nitrate/Nitrite as N	341907	AUTO15821	Accuracy		**105**	90	110		2028507002
MSD	Nitrate/Nitrite as N	341908	AUTO15821	Accuracy		**106**	90	110		2028507002
MSD	Nitrate/Nitrite as N	341908	AUTO15821	Precision		**0.9**	0	20		2028507002
SM9222 D										
MB	Fecal Coliform	341522	MICR12054	Result	***ND***				*1.0 CFU/1*	
MB	Fecal Coliform	341523	MICR12054	Result	***ND***				*1.0 CFU/1*	
MB	Fecal Coliform	341524	MICR12054	Result	***ND***				*1.0 CFU/1*	
LCS	Fecal Coliform	341525	MICR12054	Accuracy		**100**	1	2000		
TP QC (Persulfate Digestion)										

HARBOR BRANCH
ENVIRONMENTAL
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Quality Control Report

Client: SUTRON
Workorder ID: Lincoln Baffle Box
Received: 7/31/07 11:40

[2028465]

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate									
MB	Total Phosphorus as P	341942	AUTO15824	Result ***ND***				*0.00090 mg/L*	
LCS	Total Phosphorus as P	341943	AUTO15824	Accuracy	**100**	90	110		
MS	Total Phosphorus as P	341944	AUTO15824	Accuracy	**107**	90	110		2129202001
MSD	Total Phosphorus as P	341945	AUTO15824	Accuracy	**105**	90	110		2129202001
MSD	Total Phosphorus as P	341945	AUTO15824	Precision	**1.9**	0	20		2129202001
MS	Total Phosphorus as P	341946	AUTO15824	Accuracy	**101**	90	110		2028465001
MSD	Total Phosphorus as P	341947	AUTO15824	Accuracy	**98**	90	110		2028465001
MSD	Total Phosphorus as P	341947	AUTO15824	Precision	**3**	0	20		2028465001

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5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Date issued: August 13, 2007

To: Siaka Kone
SUTRON
6903 Visa Pkwy N #5
West Palm Beach, FL 33411

Client: SUTRON
Workorder ID: Rockledge Baffle Box **[2028411]**
Received: 7/25/07 13:15

Dear Siaka Kone;

Analytical results presented in this report have been reviewed for compliance with the HARBOR BRANCH Environmental Laboratories Inc.'s (HBEL) Quality Systems Manual and have been determined to meet applicable Method guidelines and Standards referenced in the July 2003 National Environmental Laboratory Accreditation Program (NELAP) Quality Manual unless otherwise noted. The Analytical Results within these report pages reflect the values obtained from tests performed on Samples As Received by the laboratory unless indicated differently.

FDOH Safe Drinking Water Act, Clean Water Act and RCRA Certification #'s:

E96080, E83509, E85370, E84418

Questions regarding this report should be directed to the Report Signatory at (772) 465-2400, Ext. 285 referencing the HBEL Workorder ID [Number].

Respectfully submitted,

Cindy Cromer
Technical Director or Designee

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Summary

Client: SUTRON
Workorder ID: Rockledge Baffle Box **[2028411]**
Received: 7/25/07 13:15

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate

Method Narratives (If Applicable)

HBEL Sample Number	Sample ID	Analytical Method	Description

Quality Control Summary

Method	HBEL Batch	Analyte	Analytical Issue
EPA 351.2			
	AUTO15799		
	2028411001	Total Kjeldahl Nitrogen	Accuracy - Outside acceptance limits in the MS.
	2028411001	Total Kjeldahl Nitrogen	Accuracy - Outside acceptance limits in the MSD.

The above due to matrix effects. Accuracy/Precision demonstrated with other QC samples.

HARBOR BRANCH
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CERTIFICATE OF ANALYSIS

[2028411]

Client: SUTRON *Workorder ID:* Rockledge Baffle Box

Laboratory ID: **2028411001** *Sampled:* 07/24/07 17:50 *Received:* 07/25/07 13:15
Sample ID: **Master (Down) Composite** *Matrix:* Water Results reported on Wet Weight Basis

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Total Suspended Solids		**39**	mg/L	0.7	2.8	EPA 160.2	WCGE27918		07/27/07 17:00	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8512	08/6/07 14:29	08/8/07 13:55	DM	E96080
Chromium		**0.0021 I**	mg/L	0.0018	0.0072	EPA 200.7	META8512	08/6/07 14:29	08/8/07 13:55	DM	E96080
Copper		**0.0049 I**	mg/L	0.0014	0.0056	EPA 200.7	META8512	08/6/07 14:29	08/8/07 13:55	DM	E96080
Zinc		**0.043**	mg/L	0.010	0.040	EPA 200.7	META8512	08/6/07 14:29	08/8/07 13:55	DM	E96080
Ammonia, as N		**0.13**	mg/L	0.0090	0.036	EPA 350.1	AUTO15792		07/27/07 13:21	JL	E96080
Total Kjeldahl Nitrogen		**1.0**	mg/L	0.045	0.18	EPA 351.2	AUTO15799	07/26/07 10:55	07/26/07 15:50	DM	E96080
Total Nitrogen		**1.3**	mg/L	0.048	0.19	EPA 351.2	CALC5434			DH	E96080
Nitrate/Nitrite as N		**0.34**	mg/L	0.0075	0.030	EPA 353.2	AUTO15821		08/7/07 12:38	DM	E96080
Orthophosphate as P		**0.12**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15783		07/25/07 16:35	JL	E96080
Total Phosphorus as P		**0.28**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15806	07/30/07 10:43	07/30/07 16:26	JL	E96080
Fecal Coliform	B	**110000**	CFU/100mL	10000	10,000	SM9222 D	MICR12051		07/25/07 14:40	TR	E96080

Laboratory ID: **2028411002** *Sampled:* 07/24/07 17:50 *Received:* 07/25/07 13:15
Sample ID: **Slave (Up) Composite** *Matrix:* Water Results reported on Wet Weight Basis

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Total Suspended Solids		**48**	mg/L	0.7	2.8	EPA 160.2	WCGE27918		07/27/07 17:00	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8512	08/6/07 14:29	08/8/07 14:07	DM	E96080
Chromium		**0.0027 I**	mg/L	0.0018	0.0072	EPA 200.7	META8512	08/6/07 14:29	08/8/07 14:07	DM	E96080
Copper		**0.0043 I**	mg/L	0.0014	0.0056	EPA 200.7	META8512	08/6/07 14:29	08/8/07 14:07	DM	E96080
Zinc		**0.058**	mg/L	0.010	0.040	EPA 200.7	META8512	08/6/07 14:29	08/8/07 14:07	DM	E96080
Ammonia, as N		**0.094**	mg/L	0.0090	0.036	EPA 350.1	AUTO15791		07/27/07 13:21	JL	E96080
Total Kjeldahl Nitrogen		**0.86**	mg/L	0.045	0.18	EPA 351.2	AUTO15799	07/26/07 10:55	07/26/07 15:52	DM	E96080
Total Nitrogen		**1.2**	mg/L	0.048	0.19	EPA 351.2	CALC5434			DH	E96080
Nitrate/Nitrite as N		**0.36**	mg/L	0.0075	0.030	EPA 353.2	AUTO15821		08/7/07 12:39	DM	E96080
Orthophosphate as P		**0.094**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15783		07/25/07 16:35	JL	E96080
Total Phosphorus as P		**0.22**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15806	07/30/07 10:43	07/30/07 16:26	JL	E96080
Fecal Coliform	B	**70000**	CFU/100mL	10000	10,000	SM9222 D	MICR12051		07/25/07 14:40	TR	E96080

[1]Result Qualifiers: U = Not Detected I = Analyte detected between the Laboratory Method Detection Limit and Laboratory Reporting Limit
Applicable Florida Department of Environmental Protection Qualifiers defined below. Statement of Estimated Uncertainty available upon request.

B Results based upon colony counts outside of the acceptable range.

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 US 1 North, Fort Pierce, FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Chain-of-Custody
and
Agreement to Perform Services

USE BALL POINT PEN
PRESS HARD
COMPLETELY FILL OUT
ALL NON GREYED AREAS
PRINT LEGIBLY

Laboratory not responsible for omitted information

____FDOH # E96080
5600 U.S. 1 North
Fort Pierce, FL 34946

____FDOH # E85370
307 Coolidge Avenue
Lehigh Acres, FL 33936

____FDOH # E83509
4155 St. Johns Pkwy.
Suite 1300
Sanford, FL 32771

____FDOH # E84418
16331 Cortez Blvd.
Brooksville, FL 34601

ACCREDITED IN ACCORDANCE WITH nelac

Company: Sutron
Address: 6903 Vista Pkwy #5
W P B Zip: 33411
Phone: 561 697 8151 Fax: 561 697 8153
Client Contact: Forrest Jay
Project Name: Rockledge
Sampled By: Tony McCormell

Method(s) of Shipment: Self

e-mail:

✓ Standard Laboratory Turn Around Time
Or
Rush in ____ Business Days
Requires Laboratory Approval

For Lab Use Only

-0.8°c

Temperature Checked	Custody Seals Intact	pH Checked
(Y) N	(Y) N	Y N

LAB # 2028411

PRESERVATIVE

X	✓	H_2SO_4	$Na_2S_2O_3$	HNO_3			

ANALYSES REQUESTED

A	E	C	D	B			
TSS	OPO4	NO3+NO2, NH3, TN, TP	Fe, Al, Cd, Mn	Cd, Cr, Cu, Zn			

Preservation Key

H=Hydrochloric Acid	P=Phosphoric Acid
N=Nitric Acid	ST=Sodium Thiosulfate
S=Sulfuric Acid	
SH=Sodium Hydroxide	U=Unpreserved

LAB ID	COLLECTION DATE	COLLECTION TIME	Sample Type*	MATRIX**	# Containers	SAMPLE DESCRIPTION As Will Appear On Report	TSS	OPO4	NO3+NO2, NH3, TN, TP	Fe, Al, Cd, Mn	Cd, Cr, Cu, Zn				COMMENTS
001	7-24-07	17:50	C	surface water	5	Master Dam	1	1	1	1	1				
2	7-24-07	1750	C	surface water	5	Sluice NP	1	1	1	1	1				

* Sample Type: G=Grab C=Composite

** Matrix: S=Solid SL=Sludge DW=Drinking Water GW=Ground Water SW=Surface Water WW=Wastewater M=Marine

RELINQUISHED BY	RELINQUISHED BY	RELINQUISHED BY
DATE/TIME	DATE/TIME	DATE/TIME
RECEIVED BY	RECEIVED BY	RECEIVED FOR HBEL CUSTODY BY
DATE/TIME	DATE/TIME	DATE/TIME 7-25-07 1315

Report Page 4 of 4

Distribution: WHITE with REPORT; YELLOW for FILE; PINK to CLIENT; GOLD for SAMPLER

CHAIN PAGE 1 of 1

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Received: 7/25/07 13:15

[2028411]

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number		*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate										
EPA 160.2										
MB	Total Suspended Solids	341093	WCGE27918	Result	***ND***				*0.7 mg/L*	
DUP	Total Suspended Solids	341094	WCGE27918	Precision		**0**	0	10		2028379005
LCS	Total Suspended Solids	341095	WCGE27918	Accuracy		**99**	85	115		
DUP	Total Suspended Solids	341096	WCGE27918	Precision		**3.7**	0	10		2028379007
EPA 200.7										
MB	Cadmium	341863	META8512	Result	***ND***				*0.00070 mg/L*	
LCS	Cadmium	341864	META8512	Accuracy		**98**	85	115		
MS	Cadmium	341865	META8512	Accuracy		**97**	70	114		2028435002
MSD	Cadmium	341866	META8512	Accuracy		**99**	70	114		2028435002
MSD	Cadmium	341866	META8512	Precision		**2**	0	20		2028435002
MS	Cadmium	341867	META8512	Accuracy		**100**	70	114		2028411001
MB	Chromium	341863	META8512	Result	***ND***				*0.0018 mg/L*	
LCS	Chromium	341864	META8512	Accuracy		**102**	85	115		
MS	Chromium	341865	META8512	Accuracy		**100**	77.3	113		2028435002
MSD	Chromium	341866	META8512	Accuracy		**102**	77.3	113		2028435002
MSD	Chromium	341866	META8512	Precision		**2**	0	20		2028435002
MS	Chromium	341867	META8512	Accuracy		**104**	77.3	113		2028411001
MB	Copper	341863	META8512	Result	***ND***				*0.0014 mg/L*	
LCS	Copper	341864	META8512	Accuracy		**102**	85	115		
MS	Copper	341865	META8512	Accuracy		**102**	80.1	121		2028435002
MSD	Copper	341866	META8512	Accuracy		**104**	80.1	121		2028435002
MSD	Copper	341866	META8512	Precision		**1.9**	0	20		2028435002
MS	Copper	341867	META8512	Accuracy		**106**	80.1	121		2028411001
MB	Zinc	341863	META8512	Result	***ND***				*0.010 mg/L*	
LCS	Zinc	341864	META8512	Accuracy		**104**	85	115		
MS	Zinc	341865	META8512	Accuracy		**102**	70	130		2028435002
MSD	Zinc	341866	META8512	Accuracy		**105**	70	130		2028435002
MSD	Zinc	341866	META8512	Precision		**2.9**	0	20		2028435002
MS	Zinc	341867	META8512	Accuracy		**104**	70	130		2028411001
EPA 350.1										
MB	Ammonia, as N	341115	AUTO15791	Result	***ND***				*0.0090 mg/L*	
MS	Ammonia, as N	341116	AUTO15791	Accuracy		**102**	90	110		2028389001
MSD	Ammonia, as N	341117	AUTO15791	Accuracy		**102**	90	110		2028389001
MSD	Ammonia, as N	341117	AUTO15791	Precision		**0**	0	20		2028389001
LCS	Ammonia, as N	341118	AUTO15791	Accuracy		**92**	90	110		

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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Received: 7/25/07 13:15

[2028411]

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate									
MS	Ammonia, as N	341119	AUTO15791	Accuracy	**102**	90	110		2028353001
MSD	Ammonia, as N	341120	AUTO15791	Accuracy	**102**	90	110		2028353001
MSD	Ammonia, as N	341120	AUTO15791	Precision	**0**	0	20		2028353001
MB	Ammonia, as N	341121	AUTO15792	Result ***ND***				*0.0090 mg/L*	
MS	Ammonia, as N	341122	AUTO15792	Accuracy	**101**	90	110		2028397001
MSD	Ammonia, as N	341123	AUTO15792	Accuracy	**100**	90	110		2028397001
MSD	Ammonia, as N	341123	AUTO15792	Precision	**1**	0	20		2028397001
LCS	Ammonia, as N	341124	AUTO15792	Accuracy	**98**	90	110		
MS	Ammonia, as N	341125	AUTO15792	Accuracy	**100**	90	110		2028411001
MSD	Ammonia, as N	341126	AUTO15792	Accuracy	**100**	90	110		2028411001
MSD	Ammonia, as N	341126	AUTO15792	Precision	**0**	0	20		2028411001
EPA 351.2									
MB	Total Kjeldahl Nitrogen	341047	AUTO15799	Result ***ND***				*0.045 mg/L*	
LCS	Total Kjeldahl Nitrogen	341048	AUTO15799	Accuracy	**106**	90	110		
MS	Total Kjeldahl Nitrogen	341049	AUTO15799	Accuracy	**81**	90	110		2028411001
MSD	Total Kjeldahl Nitrogen	341050	AUTO15799	Accuracy	**80**	90	110		2028411001
MSD	Total Kjeldahl Nitrogen	341050	AUTO15799	Precision	**1.2**	0	20		2028411001
EPA 353.2									
MMS	Nitrate/Nitrite as N	341897	AUTO15821	Accuracy	**78**	90	110		2028462001
MMSD	Nitrate/Nitrite as N	341898	AUTO15821	Accuracy	**80**	90	110		2028462001
MMSD	Nitrate/Nitrite as N	341898	AUTO15821	Precision	**2.5**	0	20		2028462001
EPA 365.1									
MB	Orthophosphate as P	341004	AUTO15783	Result ***ND***				*0.0019 mg/L*	
MS	Orthophosphate as P	341005	AUTO15783	Accuracy	**99**	90	110		2028411001
MSD	Orthophosphate as P	341006	AUTO15783	Accuracy	**98**	90	110		2028411001
MSD	Orthophosphate as P	341006	AUTO15783	Precision	**1**	0	20		2028411001
LCS	Orthophosphate as P	341007	AUTO15783	Accuracy	**102**	90	110		
EPA 365.4									
MB	Total Phosphorus as P	341047	AUTO15797	Result ***ND***				*0.012 mg/L*	
LCS	Total Phosphorus as P	341048	AUTO15797	Accuracy	**100**	72	132		
MS	Total Phosphorus as P	341049	AUTO15797	Accuracy	**98**	72	132		2028411001
MSD	Total Phosphorus as P	341050	AUTO15797	Accuracy	**99**	72	132		2028411001
MSD	Total Phosphorus as P	341050	AUTO15797	Precision	**1**	0	20		2028411001
MS	Total Phosphorus as P	341059	AUTO15797	Accuracy	**101**	72	132		2028412002

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Quality Control Report

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Received: 7/25/07 13:15

[2028411]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	Method Blank Result	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	Detection Limit	Original Sample
MSD	Total Phosphorus as P	341060	AUTO15797	Accuracy	**102**	72	132		2028412002
MSD	Total Phosphorus as P	341060	AUTO15797	Precision	**0.99**	0	20		2028412002
Nitrate/Nitrite									
MB	Nitrate/Nitrite as N	341889	AUTO15821	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341890	AUTO15821	Accuracy	**91**	90	110		
MB	Nitrate/Nitrite as N	341891	AUTO15821	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341892	AUTO15821	Accuracy	**92**	90	110		
MB	Nitrate/Nitrite as N	341893	AUTO15821	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341894	AUTO15821	Accuracy	**100**	90	110		
MS	Nitrate/Nitrite as N	341899	AUTO15821	Accuracy	**99**	90	110		2028397001
MSD	Nitrate/Nitrite as N	341900	AUTO15821	Accuracy	**97**	90	110		2028397001
MSD	Nitrate/Nitrite as N	341900	AUTO15821	Precision	**2**	0	20		2028397001
MS	Nitrate/Nitrite as N	341901	AUTO15821	Accuracy	**92**	90	110		2028412007
MSD	Nitrate/Nitrite as N	341902	AUTO15821	Accuracy	**90**	90	110		2028412007
MSD	Nitrate/Nitrite as N	341902	AUTO15821	Precision	**2.2**	0	20		2028412007
MS	Nitrate/Nitrite as N	341903	AUTO15821	Accuracy	**100**	90	110		2028421001
MSD	Nitrate/Nitrite as N	341904	AUTO15821	Accuracy	**101**	90	110		2028421001
MSD	Nitrate/Nitrite as N	341904	AUTO15821	Precision	**1**	0	20		2028421001
MS	Nitrate/Nitrite as N	341905	AUTO15821	Accuracy	**100**	90	110		2028479001
MSD	Nitrate/Nitrite as N	341906	AUTO15821	Accuracy	**101**	90	110		2028479001
MSD	Nitrate/Nitrite as N	341906	AUTO15821	Precision	**1**	0	20		2028479001
MS	Nitrate/Nitrite as N	341907	AUTO15821	Accuracy	**105**	90	110		2028507002
MSD	Nitrate/Nitrite as N	341908	AUTO15821	Accuracy	**106**	90	110		2028507002
MSD	Nitrate/Nitrite as N	341908	AUTO15821	Precision	**0.9**	0	20		2028507002
SM9222 D									
MB	Fecal Coliform	341509	MICR12051	Result ***ND***				*1.0 CFU/1*	
MB	Fecal Coliform	341510	MICR12051	Result ***ND***				*1.0 CFU/1*	
LCS	Fecal Coliform	341511	MICR12051	Accuracy	**100**	1	2000		
TP QC (Persulfate Digestion)									
MB	Total Phosphorus as P	341331	AUTO15806	Result ***ND***				*0.00090 mg/L*	
LCS	Total Phosphorus as P	341332	AUTO15806	Accuracy	**90**	90	110		
MS	Total Phosphorus as P	341333	AUTO15806	Accuracy	**103**	90	110		2028397001
MSD	Total Phosphorus as P	341334	AUTO15806	Accuracy	**102**	90	110		2028397001
MSD	Total Phosphorus as P	341334	AUTO15806	Precision	**0.98**	0	20		2028397001

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5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Date issued: August 15, 2007

To: Siaka Kone
SUTRON
6903 Visa Pkwy N #5
West Palm Beach, FL 33411

Client: SUTRON
Workorder ID: Rockledge Baffle Box **[2028479]**
Received: 8/01/07 12:10

Dear Siaka Kone;

Analytical results presented in this report have been reviewed for compliance with the HARBOR BRANCH Environmental Laboratories Inc.'s (HBEL) Quality Systems Manual and have been determined to meet applicable Method guidelines and Standards referenced in the July 2003 National Environmental Laboratory Accreditation Program (NELAP) Quality Manual unless otherwise noted. The Analytical Results within these report pages reflect the values obtained from tests performed on Samples As Received by the laboratory unless indicated differently.

FDOH Safe Drinking Water Act, Clean Water Act and RCRA Certification #'s:

E96080, E83509, E85370, E84418

Questions regarding this report should be directed to the Report Signatory at (772) 465-2400, Ext. 285 referencing the HBEL Workorder ID [Number].

Respectfully submitted,

Cindy Cromer
Technical Director or Designee

HARBOR BRANCH
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5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Summary

Client: SUTRON
Workorder ID: Rockledge Baffle Box **[2028479]**
Received: 8/01/07 12:10

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate

Method Narratives (If Applicable)

HBEL Sample Number	Sample ID	Analytical Method	Description

Quality Control Summary

Method	HBEL Batch	Analyte	Analytical Issue

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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

CERTIFICATE OF ANALYSIS

[2028479]

Client: SUTRON *Workorder ID:* Rockledge Baffle Box

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Laboratory ID: ***2028479001*** *Sampled: 07/31/07 13:29 Received: 08/01/07 12:10*											
Sample ID: ***Rock Down Composite*** *Matrix: Water* Results reported on Wet Weight Basis											
Total Suspended Solids		**39**	mg/L	0.8	3.2	EPA 160.2	WCGE27966		08/6/07 13:50	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8524	08/14/07 17:18	08/15/07 2:46	DM	E96080
Chromium		**0.0019 I**	mg/L	0.0018	0.0072	EPA 200.7	META8524	08/14/07 17:18	08/15/07 2:46	DM	E96080
Copper		**0.0048 I**	mg/L	0.0014	0.0056	EPA 200.7	META8524	08/14/07 17:18	08/15/07 2:46	DM	E96080
Zinc		**0.035 I**	mg/L	0.010	0.040	EPA 200.7	META8524	08/14/07 17:18	08/15/07 2:46	DM	E96080
Ammonia, as N		**0.038**	mg/L	0.0090	0.036	EPA 350.1	AUTO15811		08/1/07 14:31	JL	E96080
Total Kjeldahl Nitrogen		**0.81**	mg/L	0.045	0.18	EPA 351.2	AUTO15820	08/6/07 11:08	08/6/07 15:51	DM	E96080
Total Nitrogen		**0.92**	mg/L	0.048	0.19	EPA 351.2	CALC5434			DH	E96080
Nitrate/Nitrite as N		**0.11**	mg/L	0.0075	0.030	EPA 353.2	AUTO15821		08/7/07 13:13	DM	E96080
Orthophosphate as P		**0.059**	mg/L	0.0012	0.0048	EPA 365.1	AUTO15802		08/1/07 16:38	JL	E96080
Total Phosphorus as P		**0.26**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15824	08/7/07 12:30	08/7/07 15:48	JL	E96080
Fecal Coliform	B	**50000**	CFU/100mL	10000	10,000	SM9222 D	MICR12078		08/1/07 13:10	TR	E96080
Laboratory ID: ***2028479002*** *Sampled: 07/31/07 13:32 Received: 08/01/07 12:10*											
Sample ID: ***Rock Up Composite*** *Matrix: Water* Results reported on Wet Weight Basis											
Total Suspended Solids		**28**	mg/L	0.7	2.8	EPA 160.2	WCGE27966		08/6/07 13:50	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8524	08/14/07 17:18	08/15/07 2:52	DM	E96080
Chromium		**0.0026 I**	mg/L	0.0018	0.0072	EPA 200.7	META8524	08/14/07 17:18	08/15/07 2:52	DM	E96080
Copper		**0.0047 I**	mg/L	0.0014	0.0056	EPA 200.7	META8524	08/14/07 17:18	08/15/07 2:52	DM	E96080
Zinc		**0.030 I**	mg/L	0.010	0.040	EPA 200.7	META8524	08/14/07 17:18	08/15/07 2:52	DM	E96080
Ammonia, as N		**0.023 I**	mg/L	0.0090	0.036	EPA 350.1	AUTO15811		08/1/07 14:31	JL	E96080
Total Kjeldahl Nitrogen		**0.58**	mg/L	0.045	0.18	EPA 351.2	AUTO15820	08/6/07 11:08	08/6/07 15:34	DM	E96080
Total Nitrogen		**0.69**	mg/L	0.048	0.19	EPA 351.2	CALC5434			DH	E96080
Nitrate/Nitrite as N		**0.11**	mg/L	0.0075	0.030	EPA 353.2	AUTO15821		08/7/07 13:16	DM	E96080
Orthophosphate as P		**0.056**	mg/L	0.0012	0.0048	EPA 365.1	AUTO15802		08/1/07 16:38	JL	E96080
Total Phosphorus as P		**0.23**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15824	08/7/07 12:30	08/7/07 15:48	JL	E96080
Fecal Coliform	B	**41000**	CFU/100mL	1000	1,000	SM9222 D	MICR12078		08/1/07 13:10	TR	E96080

[1]Result Qualifiers: U = Not Detected I = Analyte detected between the Laboratory Method Detection Limit and Laboratory Reporting Limit
Applicable Florida Department of Environmental Protection Qualifiers defined below. Statement of Estimated Uncertainty available upon request.

B Results based upon colony counts outside of the acceptable range.

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 US 1 North, Fort Pierce, FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Chain-of-Custody
and
Agreement to Perform Services

USE BALL POINT PEN
PRESS HARD
COMPLETELY FILL OUT
ALL NON GREYED AREAS
PRINT LEGIBLY

Laboratory not responsible for omitted information

____FDOH # E96080
5600 U.S. 1 North
Fort Pierce, FL 34946

____FDOH # E85370
307 Coolidge Avenue
Lehigh Acres, FL 33936

____FDOH # E83509
4155 St. Johns Pkwy.
Suite 1300
Sanford, FL 32771

____FDOH # E84418
16331 Cortez Blvd.
Brooksville, FL 34601

ACCREDITED IN ACCORDANCE WITH nelac

Company: Sutron
Address: 6903 Vista Parkway North Suite #5
WPB, FL Zip: 33411
Phone: 5616978151 Fax: 5616978153
Client Contact: Sinka Kone
Project Name: Battle Box
Sampled By: Forrest Jay

Method(s) of Shipment: Self

e-mail:

[X] Standard Laboratory Turn Around Time
Or
Rush in ____ Business Days
Requires Laboratory Approval

For Lab Use Only
Temperature Checked: (Y) N — -0.8°C
Custody Seals Intact: Y N N/A
pH Checked: Y N

LAB # 2028479

PRESERVATIVE							
1	N	S	S	1			

ANALYSES REQUESTED							
A	B	C	D	E			
TSS	Cd Cu Zn	TKN NO3 NH3 TN TP	FC	OPO4			

Preservation Key
H=Hydrochloric Acid; P=Phosphoric Acid; N=Nitric Acid; ST=Sodium Thiosulfate; S=Sulfuric Acid; SH=Sodium Hydroxide; U=Unpreserved

LAB ID	COLLECTION DATE	COLLECTION TIME	Sample Type*	MATRIX**	# Containers	SAMPLE DESCRIPTION As Will Appear On Report	TSS	Cd Cu Zn	TKN NO3 NH3 TN TP	FC	OPO4				COMMENTS
001	7/31/07	13:29	C	SW	5	Rock Down	1	1	1	1	1				
2	7/31/07	13:32	C	SW	5	Rock Up	1	1	1	1	1				

* Sample Type: G=Grab C=Composite
** Matrix: S=Solid SL=Sludge DW=Drinking Water GW=Ground Water SW=Surface Water WW=Wastewater M=Marine

RELINQUISHED BY [signature]	RELINQUISHED BY	RELINQUISHED BY
DATE/TIME 8/1/07 12:10	DATE/TIME	DATE/TIME
RECEIVED BY	RECEIVED BY	RECEIVED FOR HBEL CUSTODY BY [signature]
DATE/TIME	DATE/TIME	DATE/TIME 8-1-07 1210

Report Page 4 of 4

Distribution: WHITE with REPORT; YELLOW for FILE; PINK to CLIENT; GOLD for SAMPLER

CHAIN PAGE 1 of 1

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Received: 8/01/07 12:10

[2028479]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number		*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
EPA 160.2										
MB	Total Suspended Solids	341697	WCGE27966	Result	***ND***				*0.7 mg/L*	
DUP	Total Suspended Solids	341698	WCGE27966	Precision		**0**	0	10		2028438005
LCS	Total Suspended Solids	341699	WCGE27966	Accuracy		**99**	85	115		
DUP	Total Suspended Solids	341700	WCGE27966	Precision		**2.7**	0	10		2028473001
EPA 200.7										
MB	Cadmium	342462	META8524	Result	***ND***				*0.00070 mg/L*	
LCS	Cadmium	342463	META8524	Accuracy		**95**	85	115		
MS	Cadmium	342464	META8524	Accuracy		**96**	70	114		2028465002
MSD	Cadmium	342465	META8524	Accuracy		**96**	70	114		2028465002
MSD	Cadmium	342465	META8524	Precision		**0**	0	20		2028465002
MS	Cadmium	342466	META8524	Accuracy		**96**	70	114		2129222001
MB	Chromium	342462	META8524	Result	***ND***				*0.0018 mg/L*	
LCS	Chromium	342463	META8524	Accuracy		**98**	85	115		
MS	Chromium	342464	META8524	Accuracy		**100**	77.3	113		2028465002
MSD	Chromium	342465	META8524	Accuracy		**100**	77.3	113		2028465002
MSD	Chromium	342465	META8524	Precision		**0**	0	20		2028465002
MB	Copper	342462	META8524	Result	***ND***				*0.0014 mg/L*	
LCS	Copper	342463	META8524	Accuracy		**98**	85	115		
MS	Copper	342464	META8524	Accuracy		**101**	80.1	121		2028465002
MSD	Copper	342465	META8524	Accuracy		**100**	80.1	121		2028465002
MSD	Copper	342465	META8524	Precision		**1**	0	20		2028465002
MS	Copper	342466	META8524	Accuracy		**100**	80.1	121		2129222001
MB	Zinc	342462	META8524	Result	***ND***				*0.010 mg/L*	
LCS	Zinc	342463	META8524	Accuracy		**99**	85	115		
MS	Zinc	342464	META8524	Accuracy		**100**	70	130		2028465002
MSD	Zinc	342465	META8524	Accuracy		**99**	70	130		2028465002
MSD	Zinc	342465	META8524	Precision		**1**	0	20		2028465002
MS	Zinc	342466	META8524	Accuracy		**98**	70	130		2129222001
EPA 350.1										
MB	Ammonia, as N	341543	AUTO15811	Result	***ND***				*0.0090 mg/L*	
MS	Ammonia, as N	341544	AUTO15811	Accuracy		**102**	90	110		2028470004
MSD	Ammonia, as N	341545	AUTO15811	Accuracy		**102**	90	110		2028470004
MSD	Ammonia, as N	341545	AUTO15811	Precision		**0**	0	20		2028470004
LCS	Ammonia, as N	341546	AUTO15811	Accuracy		**94**	90	110		

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ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Received: 8/01/07 12:10

[2028479]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
EPA 351.2									
MB	Total Kjeldahl Nitrogen	341817	AUTO15820	Result ***ND***				*0.045 mg/L*	
LCS	Total Kjeldahl Nitrogen	341818	AUTO15820	Accuracy	**93**	90	110		
MMS	Total Kjeldahl Nitrogen	341819	AUTO15820	Accuracy	**95**	90	110		2028462001
MMSD	Total Kjeldahl Nitrogen	341820	AUTO15820	Accuracy	**93**	90	110		2028462001
MMSD	Total Kjeldahl Nitrogen	341820	AUTO15820	Precision	**2.1**	0	20		2028462001
MS	Total Kjeldahl Nitrogen	341821	AUTO15820	Accuracy	**87**	90	110		2028512001
MSD	Total Kjeldahl Nitrogen	341822	AUTO15820	Accuracy	**88**	90	110		2028512001
MSD	Total Kjeldahl Nitrogen	341822	AUTO15820	Precision	**1.1**	0	20		2028512001
EPA 353.2									
MMS	Nitrate/Nitrite as N	341897	AUTO15821	Accuracy	**78**	90	110		2028462001
MMSD	Nitrate/Nitrite as N	341898	AUTO15821	Accuracy	**80**	90	110		2028462001
MMSD	Nitrate/Nitrite as N	341898	AUTO15821	Precision	**2.5**	0	20		2028462001
EPA 365.1									
MB	Orthophosphate as P	341199	AUTO15802	Result ***ND***				*0.0012 mg/L*	
MS	Orthophosphate as P	341200	AUTO15802	Accuracy	**104**	90	110		2028428004
MSD	Orthophosphate as P	341201	AUTO15802	Accuracy	**106**	90	110		2028428004
MSD	Orthophosphate as P	341201	AUTO15802	Precision	**1.9**	0	20		2028428004
LCS	Orthophosphate as P	341202	AUTO15802	Accuracy	**100**	90	110		
MS	Orthophosphate as P	341575	AUTO15802	Accuracy	**103**	90	110		2028479001
MSD	Orthophosphate as P	341576	AUTO15802	Accuracy	**103**	90	110		2028479001
MSD	Orthophosphate as P	341576	AUTO15802	Precision	**0**	0	20		2028479001
Nitrate/Nitrite									
MB	Nitrate/Nitrite as N	341889	AUTO15821	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341890	AUTO15821	Accuracy	**91**	90	110		
MB	Nitrate/Nitrite as N	341891	AUTO15821	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341892	AUTO15821	Accuracy	**92**	90	110		
MB	Nitrate/Nitrite as N	341893	AUTO15821	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341894	AUTO15821	Accuracy	**100**	90	110		
MS	Nitrate/Nitrite as N	341899	AUTO15821	Accuracy	**99**	90	110		2028397001
MSD	Nitrate/Nitrite as N	341900	AUTO15821	Accuracy	**97**	90	110		2028397001
MSD	Nitrate/Nitrite as N	341900	AUTO15821	Precision	**2**	0	20		2028397001
MS	Nitrate/Nitrite as N	341901	AUTO15821	Accuracy	**92**	90	110		2028412007
MSD	Nitrate/Nitrite as N	341902	AUTO15821	Accuracy	**90**	90	110		2028412007
MSD	Nitrate/Nitrite as N	341902	AUTO15821	Precision	**2.2**	0	20		2028412007

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Quality Control Report

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Received: 8/01/07 12:10

[2028479]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number		*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MS	Nitrate/Nitrite as N	341903	AUTO15821	Accuracy		**100**	90	110		2028421001
MSD	Nitrate/Nitrite as N	341904	AUTO15821	Accuracy		**101**	90	110		2028421001
MSD	Nitrate/Nitrite as N	341904	AUTO15821	Precision		**1**	0	20		2028421001
MS	Nitrate/Nitrite as N	341905	AUTO15821	Accuracy		**100**	90	110		2028479001
MSD	Nitrate/Nitrite as N	341906	AUTO15821	Accuracy		**101**	90	110		2028479001
MSD	Nitrate/Nitrite as N	341906	AUTO15821	Precision		**1**	0	20		2028479001
MS	Nitrate/Nitrite as N	341907	AUTO15821	Accuracy		**105**	90	110		2028507002
MSD	Nitrate/Nitrite as N	341908	AUTO15821	Accuracy		**106**	90	110		2028507002
MSD	Nitrate/Nitrite as N	341908	AUTO15821	Precision		**0.9**	0	20		2028507002
SM9222 D										
MB	Fecal Coliform	342042	MICR12078	Result	***ND***				*1.0 CFU/1*	
MB	Fecal Coliform	342043	MICR12078	Result	***ND***				*1.0 CFU/1*	
LCS	Fecal Coliform	342044	MICR12078	Accuracy		**100**	1	2000		
TP QC (Persulfate Digestion)										
MB	Total Phosphorus as P	341942	AUTO15824	Result	***ND***				*0.00090 mg/L*	
LCS	Total Phosphorus as P	341943	AUTO15824	Accuracy		**100**	90	110		
MS	Total Phosphorus as P	341944	AUTO15824	Accuracy		**107**	90	110		2129202001
MSD	Total Phosphorus as P	341945	AUTO15824	Accuracy		**105**	90	110		2129202001
MSD	Total Phosphorus as P	341945	AUTO15824	Precision		**1.9**	0	20		2129202001
MS	Total Phosphorus as P	341946	AUTO15824	Accuracy		**101**	90	110		2028465001
MSD	Total Phosphorus as P	341947	AUTO15824	Accuracy		**98**	90	110		2028465001
MSD	Total Phosphorus as P	341947	AUTO15824	Precision		**3**	0	20		2028465001

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Date issued: August 17, 2007

To: Siaka Kone
SUTRON
6903 Visa Pkwy N #5
West Palm Beach, FL 33411

Client: SUTRON
Workorder ID: Rockledge Baffle Box **[2028507]**
Received: 8/03/07 10:20

Dear Siaka Kone;

Analytical results presented in this report have been reviewed for compliance with the HARBOR BRANCH Environmental Laboratories Inc.'s (HBEL) Quality Systems Manual and have been determined to meet applicable Method guidelines and Standards referenced in the July 2003 National Environmental Laboratory Accreditation Program (NELAP) Quality Manual unless otherwise noted. The Analytical Results within these report pages reflect the values obtained from tests performed on Samples As Received by the laboratory unless indicated differently.

FDOH Safe Drinking Water Act, Clean Water Act and RCRA Certification #'s:

E96080, E83509, E85370, E84418

Questions regarding this report should be directed to the Report Signatory at (772) 465-2400, Ext. 285 referencing the HBEL Workorder ID [Number].

Respectfully submitted,

Cindy Cromer
Technical Director or Designee

HARBOR BRANCH
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5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Summary

Client: SUTRON
Workorder ID: Rockledge Baffle Box **[2028507]**
Received: 8/03/07 10:20

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate

Method Narratives (If Applicable)

HBEL Sample Number	Sample ID	Analytical Method	Description

Quality Control Summary

Method	HBEL Batch	Analyte	Analytical Issue
EPA 351.2			
	AUTO15839		
	2028507002	Total Kjeldahl Nitrogen	Accuracy - Outside acceptance limits in the MS.
	2028507002	Total Kjeldahl Nitrogen	Precision - Outside acceptance limits between the MS and MSD.
	2028507002	Total Kjeldahl Nitrogen	Accuracy - Outside acceptance limits in the MSD.

The above due to matrix effects. Accuracy/Precision demonstrated with other QC samples.

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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

CERTIFICATE OF ANALYSIS

[2028507]

Client: SUTRON *Workorder ID:* Rockledge Baffle Box

Laboratory ID: **2028507001** *Sampled:* 08/02/07 14:08 *Received:* 08/03/07 10:20
Sample ID: **Rock Down Composite** *Matrix:* Water Results reported on Wet Weight Basis

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Total Suspended Solids		**26**	mg/L	0.7	2.8	EPA 160.2	WCGE27966		08/6/07 13:50	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8528	08/15/07 16:40	08/16/07 21:57	DM	E96080
Chromium		**0.0023 I**	mg/L	0.0018	0.0072	EPA 200.7	META8528	08/15/07 16:40	08/16/07 21:57	DM	E96080
Copper		**0.0047 I**	mg/L	0.0014	0.0056	EPA 200.7	META8528	08/15/07 16:40	08/16/07 21:57	DM	E96080
Zinc		**0.076**	mg/L	0.010	0.040	EPA 200.7	META8528	08/15/07 16:40	08/16/07 21:57	DM	E96080
Ammonia, as N		**0.041**	mg/L	0.0090	0.036	EPA 350.1	AUTO15828		08/8/07 16:11	DM	E96080
Total Kjeldahl Nitrogen		**1.1**	mg/L	0.045	0.18	EPA 351.2	AUTO15839	08/9/07 10:00	08/9/07 17:42	DM	E96080
Total Nitrogen		**1.2**	mg/L	0.048	0.19	EPA 351.2	CALC5434		08/13/07 16:41	DH	E96080
Nitrate/Nitrite as N		**0.059**	mg/L	0.0075	0.030	EPA 353.2	AUTO15821		08/7/07 13:20	DM	E96080
Orthophosphate as P		**0.071**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15815		08/4/07 9:06	DM	E96080
Total Phosphorus as P		**0.24**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15824	08/7/07 12:30	08/7/07 15:48	JL	E96080
Fecal Coliform	B	**58000**	CFU/100mL	1000	1,000	SM9222 D	MICR12080		08/3/07 14:00	TR	E96080

Laboratory ID: **2028507002** *Sampled:* 08/02/07 14:06 *Received:* 08/03/07 10:20
Sample ID: **Rock Up Composite** *Matrix:* Water Results reported on Wet Weight Basis

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Total Suspended Solids		**28**	mg/L	0.7	2.8	EPA 160.2	WCGE27966		08/6/07 13:50	TCL	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8528	08/15/07 16:40	08/16/07 22:03	DM	E96080
Chromium		**0.0018 U**	mg/L	0.0018	0.0072	EPA 200.7	META8528	08/15/07 16:40	08/16/07 22:03	DM	E96080
Copper		**0.0048 I**	mg/L	0.0014	0.0056	EPA 200.7	META8528	08/15/07 16:40	08/16/07 22:03	DM	E96080
Zinc		**0.16**	mg/L	0.010	0.040	EPA 200.7	META8528	08/15/07 16:40	08/16/07 22:03	DM	E96080
Ammonia, as N		**0.034 I**	mg/L	0.0090	0.036	EPA 350.1	AUTO15828		08/8/07 16:12	DM	E96080
Total Kjeldahl Nitrogen		**0.81**	mg/L	0.045	0.18	EPA 351.2	AUTO15839	08/9/07 10:00	08/9/07 17:43	DM	E96080
Total Nitrogen		**0.87**	mg/L	0.048	0.19	EPA 351.2	CALC5434		08/13/07 16:42	DH	E96080
Nitrate/Nitrite as N		**0.058**	mg/L	0.0075	0.030	EPA 353.2	AUTO15821		08/7/07 13:22	DM	E96080
Orthophosphate as P		**0.057**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15815		08/4/07 9:06	DM	E96080
Total Phosphorus as P		**0.19**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15824	08/7/07 12:30	08/7/07 15:48	JL	E96080
Fecal Coliform	B	**90000**	CFU/100mL	10000	10,000	SM9222 D	MICR12080		08/3/07 14:00	TR	E96080

[1]Result Qualifiers: U = Not Detected I = Analyte detected between the Laboratory Method Detection Limit and Laboratory Reporting Limit
Applicable Florida Department of Environmental Protection Qualifiers defined below. Statement of Estimated Uncertainty available upon request.

B Results based upon colony counts outside of the acceptable range.

HARBOR BRANCH
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Chain-of-Custody
and
Agreement to Perform Services

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PRINT LEGIBLY

Laboratory not responsible for omitted information

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Fort Pierce, FL 34946

____FDOH # E85370
307 Coolidge Avenue
Lehigh Acres, FL 33936

____FDOH # E83509
4155 St. Johns Pkwy.
Suite 1300
Sanford, FL 32771

____FDOH # E84418
16331 Cortez Blvd.
Brooksville, FL 34601

ACCREDITED IN ACCORDANCE WITH nelac

Company: Sutron
Address: 6903 Vista Parkway North
Suite #5
WPB, FL Zip: 33411
Phone: 5616978151 Fax: 5616978153
Client Contact: Siaka Kone
Project Name: Baffle Box
Sampled By: Forrest Jay

Method(s) of Shipment: self

e-mail: skone@sutron.com

X Standard Laboratory Turn Around Time

Or

Rush in ____ Business Days
Requires Laboratory Approval

For Lab Use Only

Temperature Checked	Custody Seals Intact	pH Checked
-0.9°C		
Y N	Y N	Y N

LAB # 2028507

PRESERVATIVE							
/	N	S	ST				

ANALYSES REQUESTED							
TSS	Cd, Cr Cu, Zn	NO_x, TKN NH_3, TN, TP	Fecal Coli.	OPO4			

Preservation Key
H=Hydrochloric Acid
N=Nitric Acid
S=Sulfuric Acid
SH=Sodium Hydroxide
P=Phosphoric Acid
ST=Sodium Thiosulfate
U=Unpreserved

LAB ID	COLLECTION DATE	COLLECTION TIME	Sample Type*	MATRIX**	# Containers	SAMPLE DESCRIPTION As Will Appear On Report	TSS	Cd, Cr Cu, Zn	NO_x, TKN NH_3, TN, TP	Fecal Coli.	OPO4				COMMENTS
	8/2/07	14:08	C	SW	5	Rock Down	/	/	/	/	/				
	8/2/07	14:06	C	SW	5	Rock Up	/	/	/	/	/				

* Sample Type: G=Grab C=Composite

** Matrix: S=Solid SL=Sludge DW=Drinking Water GW=Ground Water SW=Surface Water WW=Wastewater M=Marine

RELINQUISHED BY	RELINQUISHED BY	RELINQUISHED BY
DATE/TIME 8/3/07 10:20	DATE/TIME	DATE/TIME
RECEIVED BY	RECEIVED BY	RECEIVED FOR HBEL CUSTODY BY
DATE/TIME	DATE/TIME	DATE/TIME 8:30AM 1020

Report Page 4 of 4

Distribution: WHITE with REPORT; YELLOW for FILE; PINK to CLIENT; GOLD for SAMPLER

CHAIN PAGE 1 of 1

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Received: 8/03/07 10:20

[2028507]

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number		*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate										
EPA 160.2										
MB	Total Suspended Solids	341697	WCGE27966	Result	***ND***				*0.7 mg/L*	
DUP	Total Suspended Solids	341698	WCGE27966	Precision		**0**	0	10		2028438005
LCS	Total Suspended Solids	341699	WCGE27966	Accuracy		**99**	85	115		
DUP	Total Suspended Solids	341700	WCGE27966	Precision		**2.7**	0	10		2028473001
EPA 200.7										
MB	Cadmium	342592	META8528	Result	***ND***				*0.00070 mg/L*	
LCS	Cadmium	342593	META8528	Accuracy		**94**	85	115		
MS	Cadmium	342594	META8528	Accuracy		**97**	70	114		2028586019
MSD	Cadmium	342595	META8528	Accuracy		**95**	70	114		2028586019
MSD	Cadmium	342595	META8528	Precision		**2.1**	0	20		2028586019
MB	Chromium	342592	META8528	Result	***ND***				*0.0018 mg/L*	
LCS	Chromium	342593	META8528	Accuracy		**96**	85	115		
MS	Chromium	342594	META8528	Accuracy		**113**	77.3	113		2028586019
MSD	Chromium	342595	META8528	Accuracy		**109**	77.3	113		2028586019
MSD	Chromium	342595	META8528	Precision		**3.6**	0	20		2028586019
MS	Chromium	342596	META8528	Accuracy		**99**	77.3	113		2028586034
MB	Copper	342592	META8528	Result	***ND***				*0.0014 mg/L*	
LCS	Copper	342593	META8528	Accuracy		**97**	85	115		
MS	Copper	342594	META8528	Accuracy		**103**	80.1	121		2028586019
MSD	Copper	342595	META8528	Accuracy		**103**	80.1	121		2028586019
MSD	Copper	342595	META8528	Precision		**0**	0	20		2028586019
MS	Copper	342596	META8528	Accuracy		**102**	80.1	121		2028586034
MB	Zinc	342592	META8528	Result	***ND***				*0.010 mg/L*	
LCS	Zinc	342593	META8528	Accuracy		**99**	85	115		
MS	Zinc	342594	META8528	Accuracy		**106**	70	130		2028586019
MSD	Zinc	342595	META8528	Accuracy		**102**	70	130		2028586019
MSD	Zinc	342595	META8528	Precision		**3.8**	0	20		2028586019
EPA 350.1										
MB	Ammonia, as N	342086	AUTO15828	Result	***ND***				*0.0090 mg/L*	
MS	Ammonia, as N	342087	AUTO15828	Accuracy		**95**	90	110		2306065002
MSD	Ammonia, as N	342088	AUTO15828	Accuracy		**93**	90	110		2306065002
MSD	Ammonia, as N	342088	AUTO15828	Precision		**2.1**	0	20		2306065002
LCS	Ammonia, as N	342089	AUTO15828	Accuracy		**93**	90	110		
EPA 351.2										

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Received: 8/03/07 10:20

[2028507]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MB	Total Kjeldahl Nitrogen	342131	AUTO15839	Result ***ND***				*0.045 mg/L*	
LCS	Total Kjeldahl Nitrogen	342132	AUTO15839	Accuracy	**110**	90	110		
MS	Total Kjeldahl Nitrogen	342133	AUTO15839	Accuracy	**134**	90	110		2028507002
MSD	Total Kjeldahl Nitrogen	342134	AUTO15839	Accuracy	**76**	90	110		2028507002
MSD	Total Kjeldahl Nitrogen	342134	AUTO15839	Precision	**55**	0	20		2028507002
EPA 353.2									
MMS	Nitrate/Nitrite as N	341897	AUTO15821	Accuracy	**78**	90	110		2028462001
MMSD	Nitrate/Nitrite as N	341898	AUTO15821	Accuracy	**80**	90	110		2028462001
MMSD	Nitrate/Nitrite as N	341898	AUTO15821	Precision	**2.5**	0	20		2028462001
EPA 365.1									
MB	Orthophosphate as P	341763	AUTO15815	Result ***ND***				*0.0019 mg/L*	
MS	Orthophosphate as P	341764	AUTO15815	Accuracy	**108**	90	110		2028507002
MSD	Orthophosphate as P	341765	AUTO15815	Accuracy	**106**	90	110		2028507002
MSD	Orthophosphate as P	341765	AUTO15815	Precision	**1.9**	0	20		2028507002
LCS	Orthophosphate as P	341766	AUTO15815	Accuracy	**102**	90	110		
EPA 365.4									
MB	Total Phosphorus as P	342131	AUTO15836	Result ***ND***				*0.012 mg/L*	
LCS	Total Phosphorus as P	342132	AUTO15836	Accuracy	**102**	72	132		
MS	Total Phosphorus as P	342133	AUTO15836	Accuracy	**101**	72	132		2028507002
MSD	Total Phosphorus as P	342134	AUTO15836	Accuracy	**98**	72	132		2028507002
MSD	Total Phosphorus as P	342134	AUTO15836	Precision	**3**	0	20		2028507002
Nitrate/Nitrite									
MB	Nitrate/Nitrite as N	341889	AUTO15821	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341890	AUTO15821	Accuracy	**91**	90	110		
MB	Nitrate/Nitrite as N	341891	AUTO15821	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341892	AUTO15821	Accuracy	**92**	90	110		
MB	Nitrate/Nitrite as N	341893	AUTO15821	Result ***ND***				*0.0075 mg/L*	
LCS	Nitrate/Nitrite as N	341894	AUTO15821	Accuracy	**100**	90	110		
MS	Nitrate/Nitrite as N	341899	AUTO15821	Accuracy	**99**	90	110		2028397001
MSD	Nitrate/Nitrite as N	341900	AUTO15821	Accuracy	**97**	90	110		2028397001
MSD	Nitrate/Nitrite as N	341900	AUTO15821	Precision	**2**	0	20		2028397001
MS	Nitrate/Nitrite as N	341901	AUTO15821	Accuracy	**92**	90	110		2028412007
MSD	Nitrate/Nitrite as N	341902	AUTO15821	Accuracy	**90**	90	110		2028412007
MSD	Nitrate/Nitrite as N	341902	AUTO15821	Precision	**2.2**	0	20		2028412007
MS	Nitrate/Nitrite as N	341903	AUTO15821	Accuracy	**100**	90	110		2028421001

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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Received: 8/03/07 10:20

[2028507]

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate
XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MSD	Nitrate/Nitrite as N	341904	AUTO15821	Accuracy	**101**	90	110		2028421001
MSD	Nitrate/Nitrite as N	341904	AUTO15821	Precision	**1**	0	20		2028421001
MS	Nitrate/Nitrite as N	341905	AUTO15821	Accuracy	**100**	90	110		2028479001
MSD	Nitrate/Nitrite as N	341906	AUTO15821	Accuracy	**101**	90	110		2028479001
MSD	Nitrate/Nitrite as N	341906	AUTO15821	Precision	**1**	0	20		2028479001
MS	Nitrate/Nitrite as N	341907	AUTO15821	Accuracy	**105**	90	110		2028507002
MSD	Nitrate/Nitrite as N	341908	AUTO15821	Accuracy	**106**	90	110		2028507002
MSD	Nitrate/Nitrite as N	341908	AUTO15821	Precision	**0.9**	0	20		2028507002
SM9222 D									
MB	Fecal Coliform	342048	MICR12080	Result ***ND***				*1.0 CFU/1*	
MB	Fecal Coliform	342049	MICR12080	Result ***ND***				*1.0 CFU/1*	
LCS	Fecal Coliform	342050	MICR12080	Accuracy	**100**	1	2000		
TP QC (Persulfate Digestion)									
MB	Total Phosphorus as P	341942	AUTO15824	Result ***ND***				*0.00090 mg/L*	
LCS	Total Phosphorus as P	341943	AUTO15824	Accuracy	**100**	90	110		
MS	Total Phosphorus as P	341944	AUTO15824	Accuracy	**107**	90	110		2129202001
MSD	Total Phosphorus as P	341945	AUTO15824	Accuracy	**105**	90	110		2129202001
MSD	Total Phosphorus as P	341945	AUTO15824	Precision	**1.9**	0	20		2129202001
MS	Total Phosphorus as P	341946	AUTO15824	Accuracy	**101**	90	110		2028465001
MSD	Total Phosphorus as P	341947	AUTO15824	Accuracy	**98**	90	110		2028465001
MSD	Total Phosphorus as P	341947	AUTO15824	Precision	**3**	0	20		2028465001

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ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce, FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Date issued: September 11, 2007

To: Siaka Kone
SUTRON
6903 Visa Pkwy N #5
West Palm Beach, FL 33411

Client: SUTRON
Workorder ID: Rockledge Baffle Box **[2028685]**
Received: 8/24/07 12:30

Dear Siaka Kone;

Analytical results presented in this report have been reviewed for compliance with the HARBOR BRANCH Environmental Laboratories Inc.'s (HBEL) Quality Systems Manual and have been determined to meet applicable Method guidelines and Standards referenced in the July 2003 National Environmental Laboratory Accreditation Program (NELAP) Quality Manual unless otherwise noted. The Analytical Results within these report pages reflect the values obtained from tests performed on Samples As Received by the laboratory unless indicated differently.

FDOH Safe Drinking Water Act, Clean Water Act and RCRA Certification #'s:

E96080, E83509, E85370, E84418

Questions regarding this report should be directed to the Report Signatory at (772) 465-2400, Ext. 285 referencing the HBEL Workorder ID [Number].

Respectfully submitted,

Cindy Cromer
Technical Director or Designee

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Summary

Client: SUTRON
Workorder ID: Rockledge Baffle Box **[2028685]**
Received: 8/24/07 12:30

MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate

Method Narratives (If Applicable)

HBEL Sample Number	Sample ID	Analytical Method	Description

Quality Control Summary

Method	HBEL Batch	Analyte	Analytical Issue
EPA 160.2			
	2028632002	Total Suspended Solids	Precision - Outside acceptance limits between DUPs.
EPA 351.2			
	AUTO15886		
	2028685001	Total Kjeldahl Nitrogen	Accuracy - Outside acceptance limits in the MS.
	2028685001	Total Kjeldahl Nitrogen	Accuracy - Outside acceptance limits in the MSD.
	2028685001	Total Kjeldahl Nitrogen	Precision - Outside acceptance limits between the MS and MSD.
EPA 365.4			
	AUTO15884		
	2028685001	Total Phosphorus as P	Accuracy - Outside acceptance limits in the MS.
	2028685001	Total Phosphorus as P	Precision - Outside acceptance limits between the MS and MSD.

The above due to matrix effects. Accuracy/Precision demonstrated with other QC samples.

HARBOR BRANCH
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Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

CERTIFICATE OF ANALYSIS
[2028685]

Client: SUTRON *Workorder ID:* Rockledge Baffle Box

Parameter	Qualifier	Result[1]	Units	Detection Limit	Reporting Limit	Method	Laboratory Batch	Prep Date/Time	Analyzed Date/Time	Analyst	Lab ID
Laboratory ID: **2028685001** *Sample ID:* **Downstream Grab**						*Sampled: 08/23/07 18:04* *Received: 08/24/07 12:30* *Matrix: Water* Results reported on Wet Weight Basis					
Total Suspended Solids		**63**	mg/L	3.5	14	EPA 160.2	WCGE28086		08/29/07 8:00	GG	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8562	09/6/07 11:18	09/8/07 19:53	DM	E96080
Chromium		**0.0022 I**	mg/L	0.0018	0.0072	EPA 200.7	META8562	09/6/07 11:18	09/8/07 19:53	DM	E96080
Copper		**0.0074**	mg/L	0.0014	0.0056	EPA 200.7	META8562	09/6/07 11:18	09/8/07 19:53	DM	E96080
Zinc		**0.059**	mg/L	0.010	0.040	EPA 200.7	META8562	09/6/07 11:18	09/8/07 19:53	DM	E96080
Ammonia, as N		**0.045**	mg/L	0.0090	0.036	EPA 350.1	AUTO15893		09/4/07 14:43	JL	E96080
Total Kjeldahl Nitrogen		**1.8**	mg/L	0.045	0.18	EPA 351.2	AUTO15886	08/30/07 14:30	08/30/07 23:21	DM	E96080
Total Nitrogen		**2.2**	mg/L	0.048	0.19	EPA 351.2	CALC5447		09/4/07 8:41	DH	E96080
Nitrate/Nitrite as N		**0.38**	mg/L	0.0075	0.030	EPA 353.2	AUTO15873		08/28/07 0:10	DM	E96080
Orthophosphate as P		**0.45**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15865		08/24/07 23:16	DM	E96080
Total Phosphorus as P		**0.70**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15874	08/27/07 19:12	08/28/07 0:25	DM	E96080
Fecal Coliform	Z	**.01 ml filter**	CFU/100mL	10000	10,000	SM9222 D	MICR12143		08/24/07 16:10	TR	E96080
Laboratory ID: **2028685002** *Sample ID:* **Upstream Grab**						*Sampled: 08/23/07 18:08* *Received: 08/24/07 12:30* *Matrix: Water* Results reported on Wet Weight Basis					
Total Suspended Solids		**52**	mg/L	3.5	14	EPA 160.2	WCGE28086		08/29/07 8:00	GG	E96080
Cadmium		**0.00070 U**	mg/L	0.00070	0.0028	EPA 200.7	META8562	09/6/07 11:18	09/8/07 20:12	DM	E96080
Chromium		**0.0028 I**	mg/L	0.0018	0.0072	EPA 200.7	META8562	09/6/07 11:18	09/8/07 20:12	DM	E96080
Copper		**0.0073**	mg/L	0.0014	0.0056	EPA 200.7	META8562	09/6/07 11:18	09/8/07 20:12	DM	E96080
Zinc		**0.052**	mg/L	0.010	0.040	EPA 200.7	META8562	09/6/07 11:18	09/8/07 20:12	DM	E96080
Ammonia, as N		**0.16**	mg/L	0.0090	0.036	EPA 350.1	AUTO15893		09/4/07 14:43	JL	E96080
Total Kjeldahl Nitrogen		**2.2**	mg/L	0.045	0.18	EPA 351.2	AUTO15886	08/30/07 14:30	08/30/07 23:45	DM	E96080
Total Nitrogen		**3.5**	mg/L	0.048	0.19	EPA 351.2	CALC5447		09/4/07 8:42	DH	E96080
Nitrate/Nitrite as N		**1.2**	mg/L	0.075	0.30	EPA 353.2	AUTO15873		08/28/07 0:11	DM	E96080
Orthophosphate as P		**0.51**	mg/L	0.0019	0.0076	EPA 365.1	AUTO15865		08/24/07 23:16	DM	E96080
Total Phosphorus as P		**0.77**	mg/L	0.00090	0.0036	EPA 365.1	AUTO15874	08/27/07 19:12	08/28/07 0:25	DM	E96080
Fecal Coliform	B	**470000**	CFU/100mL	10000	10,000	SM9222 D	MICR12143		08/24/07 16:10	TR	E96080

[1]Result Qualifiers: U = Not Detected I = Analyte detected between the Laboratory Method Detection Limit and Laboratory Reporting Limit
Applicable Florida Department of Environmental Protection Qualifiers defined below. Statement of Estimated Uncertainty available upon request.

B Results based upon colony counts outside of the acceptable range.

Z Too many colonies were present (TNTC), the numeric value represents the filtration volume.

HARBOR BRANCH
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Chain-of-Custody
and
Agreement to Perform Services

USE BALL POINT PEN
PRESS HARD
COMPLETELY FILL OUT
ALL NON GREYED AREAS
PRINT LEGIBLY

Laboratory not responsible for omitted information

____FDOH # E96080
5600 U.S. 1 North
Fort Pierce, FL 34946

____FDOH # E85370
307 Coolidge Avenue
Lehigh Acres, FL 33936

____FDOH # E83509
4155 St. Johns Pkwy.
Suite 1300
Sanford, FL 32771

____FDOH # E84418
16331 Cortez Blvd.
Brooksville, FL 34601

ACCREDITED IN ACCORDANCE WITH nelac

Company: Sotron
Address: 6903 Vista Pkwy N. Suite 5
Zip: 33411
Phone: 5616978151 Fax: 5616978153
Client Contact: Forrest Jay
Project Name: Rocklodge
Sampled By: MCCORMICK

Method(s) of Shipment: Self

e-mail:

Standard Laboratory Turn Around Time
Or
Rush in ____ Business Days
Requires Laboratory Approval

For Lab Use Only
Temperature Checked: Y N (-0.9°c)
Custody Seals Intact: Y N/A
pH Checked: Y N

LAB # 2028685

PRESERVATIVE: 1 | HNO3 | HZ SO4 | NHZ S2O3 | None

ANALYSES REQUESTED: A TSS | B CDCRCU ZN | C NOX NH3 TN TPTKN | D Fecal Coliform MF | E OPO4

Preservation Key
H=Hydrochloric Acid
P=Phosphoric Acid
N=Nitric Acid
ST=Sodium Thiosulfate
S=Sulfuric Acid
SH=Sodium Hydroxide
U=Unpreserved

LAB ID	COLLECTION DATE	COLLECTION TIME	Sample Type*	MATRIX**	# Containers	SAMPLE DESCRIPTION As Will Appear On Report	A TSS	B CDCRCU ZN	C NOX NH3 TN TPTKN	D Fecal Coliform MF	E OPO4				COMMENTS
001	Aug23	16:41	C	SW	5	Down Stream	1	1	1	1	1				
2	Aug23	16:41	C	SW	5	Up Stream	1	1	1	1	1				

* Sample Type: G=Grab C=Composite
** Matrix: S=Solid SL=Sludge DW=Drinking Water GW=Ground Water SW=Surface Water WW=Wastewater M=Marine

RELINQUISHED BY	RELINQUISHED BY	RELINQUISHED BY
DATE/TIME	DATE/TIME	DATE/TIME Aug 23 12:50pm
RECEIVED BY	RECEIVED BY	RECEIVED FOR HBEL CUSTODY BY
DATE/TIME	DATE/TIME	DATE/TIME 8.24.07 1230

Report Page 4 of 4

Distribution: WHITE with REPORT; YELLOW for FILE; PINK to CLIENT; GOLD for SAMPLER

CHAIN PAGE 1 of 1

2028685

Ben North

From: Don Hash
Sent: Monday, August 27, 2007 10:52 AM
To: Ben North
Subject: FW: Correction to CofC for 8/23/07

can you revise lims and let me know when done.

-----Original Message-----
From: Lisa Herlihy [mailto:lherlihy@sutron.com]
Sent: Monday, August 27, 2007 9:00 AM
To: Don Hash
Cc: Forrest Jay
Subject: Correction to CofC for 8/23/07

Don,

We have a correction to the CofC for the Rockledge sample collected on 8/23/07. The downstream sample was collected at 18:04 on 8/23, and the upstream sample was collected at 18:08 on 8/23.

Lisa Herlihy
Sr. Environmental Scientist
Sutron Corporation
6903 Vista Parkway North
Suite 5
West Palm Beach, FL 33411
Ph. (561) 697-8151
Fax (561) 697-8153
lherlihy@sutron.com

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Quality Control Report

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Received: 8/24/07 12:30

[2028685]

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate									
EPA 160.2									
MB	Total Suspended Solids	343499	WCGE28086	Result ***ND***				*0.7 mg/L*	
DUP	Total Suspended Solids	343500	WCGE28086	Precision	**18**	0	10		2028632002
LCS	Total Suspended Solids	343501	WCGE28086	Accuracy	**89**	85	115		
EPA 200.7									
MB	Cadmium	344173	META8562	Result ***ND***				*0.00070 mg/L*	
LCS	Cadmium	344174	META8562	Accuracy	**95**	85	115		
MS	Cadmium	344175	META8562	Accuracy	**96**	70	114		2129333004
MSD	Cadmium	344176	META8562	Accuracy	**97**	70	114		2129333004
MSD	Cadmium	344176	META8562	Precision	**1**	0	20		2129333004
MB	Chromium	344173	META8562	Result ***ND***				*0.0018 mg/L*	
LCS	Chromium	344174	META8562	Accuracy	**100**	85	115		
MS	Chromium	344175	META8562	Accuracy	**101**	77.3	113		2129333004
MSD	Chromium	344176	META8562	Accuracy	**101**	77.3	113		2129333004
MSD	Chromium	344176	META8562	Precision	**0**	0	20		2129333004
MB	Copper	344173	META8562	Result ***ND***				*0.0014 mg/L*	
LCS	Copper	344174	META8562	Accuracy	**97**	85	115		
MS	Copper	344175	META8562	Accuracy	**100**	80.1	121		2129333004
MSD	Copper	344176	META8562	Accuracy	**100**	80.1	121		2129333004
MSD	Copper	344176	META8562	Precision	**0**	0	20		2129333004
MB	Zinc	344173	META8562	Result ***ND***				*0.010 mg/L*	
LCS	Zinc	344174	META8562	Accuracy	**103**	85	115		
MS	Zinc	344175	META8562	Accuracy	**104**	70	130		2129333004
MSD	Zinc	344176	META8562	Accuracy	**102**	70	130		2129333004
MSD	Zinc	344176	META8562	Precision	**1.9**	0	20		2129333004
EPA 350.1									
MB	Ammonia, as N	343861	AUTO15893	Result ***ND***				*0.0090 mg/L*	
MS	Ammonia, as N	343862	AUTO15893	Accuracy	**99**	90	110		2306099002
MSD	Ammonia, as N	343863	AUTO15893	Accuracy	**100**	90	110		2306099002
MSD	Ammonia, as N	343863	AUTO15893	Precision	**1**	0	20		2306099002
LCS	Ammonia, as N	343864	AUTO15893	Accuracy	**99**	90	110		
MS	Ammonia, as N	343865	AUTO15893	Accuracy	**106**	90	110		2028674001
MSD	Ammonia, as N	343866	AUTO15893	Accuracy	**107**	90	110		2028674001
MSD	Ammonia, as N	343866	AUTO15893	Precision	**0.94**	0	20		2028674001
EPA 351.2									

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Received: 8/24/07 12:30

[2028685]

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number	Method Blank Result	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	Detection Limit	Original Sample
MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate									
MB	Total Kjeldahl Nitrogen	343604	AUTO15886	Result ND				0.045 mg/L	
LCS	Total Kjeldahl Nitrogen	343605	AUTO15886	Accuracy	99	90	110		
MS	Total Kjeldahl Nitrogen	343606	AUTO15886	Accuracy	123	90	110		2028685001
MSD	Total Kjeldahl Nitrogen	343607	AUTO15886	Accuracy	171	90	110		2028685001
MSD	Total Kjeldahl Nitrogen	343607	AUTO15886	Precision	33	0	20		2028685001
EPA 353.2									
MMS	Nitrate/Nitrite as N	343372	AUTO15873	Accuracy	101	90	110		2028650002
MMSD	Nitrate/Nitrite as N	343373	AUTO15873	Accuracy	100	90	110		2028650002
MMSD	Nitrate/Nitrite as N	343373	AUTO15873	Precision	1	0	20		2028650002
EPA 365.1									
MB	Orthophosphate as P	343273	AUTO15865	Result ND				0.0019 mg/L	
MS	Orthophosphate as P	343274	AUTO15865	Accuracy	98	90	110		2129333006
MSD	Orthophosphate as P	343275	AUTO15865	Accuracy	98	90	110		2129333006
MSD	Orthophosphate as P	343275	AUTO15865	Precision	0	0	20		2129333006
LCS	Orthophosphate as P	343276	AUTO15865	Accuracy	100	90	110		
EPA 365.4									
MB	Total Phosphorus as P	343604	AUTO15884	Result ND				0.012 mg/L	
LCS	Total Phosphorus as P	343605	AUTO15884	Accuracy	100	72	132		
MS	Total Phosphorus as P	343606	AUTO15884	Accuracy	0.8	72	132		2028685001
MSD	Total Phosphorus as P	343607	AUTO15884	Accuracy	104	72	132		2028685001
MSD	Total Phosphorus as P	343607	AUTO15884	Precision	197	0	20		2028685001
Nitrate/Nitrite									
MB	Nitrate/Nitrite as N	343368	AUTO15873	Result ND				0.0075 mg/L	
LCS	Nitrate/Nitrite as N	343369	AUTO15873	Accuracy	92	90	110		
MB	Nitrate/Nitrite as N	343370	AUTO15873	Result ND				0.0075 mg/L	
LCS	Nitrate/Nitrite as N	343371	AUTO15873	Accuracy	96	90	110		
MS	Nitrate/Nitrite as N	343374	AUTO15873	Accuracy	97	90	110		2028619002
MSD	Nitrate/Nitrite as N	343375	AUTO15873	Accuracy	98	90	110		2028619002
MSD	Nitrate/Nitrite as N	343375	AUTO15873	Precision	1	0	20		2028619002
MS	Nitrate/Nitrite as N	343376	AUTO15873	Accuracy	95	90	110		2028685001
MSD	Nitrate/Nitrite as N	343377	AUTO15873	Accuracy	97	90	110		2028685001
MSD	Nitrate/Nitrite as N	343377	AUTO15873	Precision	2.1	0	20		2028685001
SM9222 D									
MB	Fecal Coliform	343767	MICR12143	Result ND				1.0 CFU/1	

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 U.S. 1 North, Fort Pierce FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Quality Control Report

Client: SUTRON
Workorder ID: Rockledge Baffle Box
Received: 8/24/07 12:30

[2028685]

Sample Type	Analyte	Laboratory Sample Number	Laboratory Batch Number		*Method Blank Result*	% Recovery	Acceptance Criteria Lower	Acceptance Criteria Upper	*Detection Limit*	Original Sample
MB=Method Blank LCS=Laboratory Control Sample LCSD=Laboratory Control Sample Duplicate MS=Matrix Spike MSD=Matrix Spike Duplicate DUP=Sample Duplicate XMS=Sludge Matrix Spike XMSD=Sludge Matrix Spike Duplicate MMS=Marine Matrix Spike MMSD=Marine Matrix Spike Duplicate										
MB	Fecal Coliform	343768	MICR12143			**5**				
MB	Fecal Coliform	343768	MICR12143	Result	***5.0***				*1.0 CFU/1*	
LCS	Fecal Coliform	343769	MICR12143	Accuracy		**100**	1	2000		
TP QC (Persulfate Digestion)										
MB	Total Phosphorus as P	343364	AUTO15874	Result	***ND***				*0.00090 mg/L*	
LCS	Total Phosphorus as P	343365	AUTO15874	Accuracy		**97**	90	110		
MS	Total Phosphorus as P	343366	AUTO15874	Accuracy		**102**	90	110		2028662001
MSD	Total Phosphorus as P	343367	AUTO15874	Accuracy		**102**	90	110		2028662001
MSD	Total Phosphorus as P	343367	AUTO15874	Precision		**0**	0	20		2028662001

REPORT NUMBER: F09090-8020
ACCOUNT NUMBER: 99990

A & L GREAT LAKES LABORATORIES, INC.

3505 Conestoga Dr. • Fort Wayne, IN 46808 • 260-483-4759 • FAX 260-483-5274
www.algreatlakes.com • lab@algreatlakes.com

QUALITY ANALYSES FOR INFORMED DECISIONS

TO: DANIEL SMITH
10809 CEDAR COVE DRIVE
THONOTOSASSA, FL 33592

BIOSOLIDS ANALYSIS

LAB NUMBER: 46059
SAMPLE ID: 38

DATE SAMPLED: 3/25/2009
DATE RECEIVED: 03/31/2009
DATE REPORTED: 04/07/2009

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT (%)	RESULT (MG/KG)	DL (MG/KG)			
Solids, Total	20.67	%	100.0	1000000	0.048	MG	03/31/09	SM(20th) 2540G
Volatile Solids			89	890100	1	MG	03/31/09	SM(20th) 2540G
Nitrogen, Total Kjeldahl	3859	mg/kg	1.87	18670	4.8	MG	04/02/09	SM-4500 N(org)B and NH
Phosphorus	309	mg/kg	0.15	1495	4.8	CC	04/06/09	SW846-6010B
Phosphorus (Total as P2O5)	708	mg/kg	0.34	3423	11.1	CC	04/06/09	SW846-6010B
Carbon:Nitrogen Ratio	23.8	---				AB	04/07/09	Calculated

REPORT NO.
F09090-6007
ACCOUNT NUMBER
99990

A & L GREAT LAKES LABORATORIES, INC.

3505 Conestoga Dr. • Fort Wayne, IN 46808 • 260-483-4759 • FAX 260-483-5274
www.algreatlakes.com • lab@algreatlakes.com

QUALITY ANALYSES FOR INFORMED DECISIONS

TO: DANIEL SMITH
10809 CEDAR COVE DRIVE
THOROTOSASSA, FL 33592

PURCHASE ORDER: 090-6007

COMPOST ANALYSIS REPORT

LAB NUMBER: 44901
SAMPLE ID: 72

DATE RECEIVED: 03/31/2009
DATE REPORTED: 04/03/2009

PARAMETER	UNIT	ANALYSIS RESULT	DRY BASIS RESULT	ANALYSIS METHOD
Moisture @ 70 C	%	75.42		TMECC 03.09-A
Dry Matter	%	24.58		TMECC 03.09-A
Total Nitrogen (N)	%	0.49	1.99	TMECC 04.02-D
Phosphorus (P)	%	0.04	0.18	TMECC 04.03-A
Phosphate (P205)	%	0.10	0.41	TMECC 04.03-A
Potassium (K)	%	0.03	0.14	TMECC 04.04-A
Potash (K2O)	%	0.04	0.17	TMECC 04.04-A
Ash @ 550 C	%	8.71	35.44	TMECC 03.02-B
Organic Matter by LOI @ 550C	%	15.87	64.56	TMECC 05.07-A
Organic Carbon by LOI @ 550C	%	7.93	32.28	Estimated
Carbon:Nitrogen Ratio (C:N)	-	16.2:1	16.2:1	TMECC 05.02-A

TMECC - Test Methods for the Examination of Composting and Compost. The U.S. Composting Council.

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 (904) 739-2277 (904) 739-2011 fax

Columbia Analytical Services INC.
An Employee - Owned Company

April 08, 2009 Service Request No: J0901508

Daniel Smith
Applied Environmental Technology
10809 Cedar Cove Drive
Tampa, FL 33592-2250

Laboratory Results for: Baffle Box Research

Dear Daniel:

Enclosed are the results of the sample(s) submitted to our laboratory on March 27, 2009. For your reference, these analyses have been assigned our service request number **J0901508**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 4408. You may also contact me via email at TKissinger@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Tom Kissinger
Project Manager

Page 1 of 19

CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502 valid through 6/30/09. Other state accreditations include: Georgia, #958 valid through 6/30/09; Louisiana, #02086 valid through 6/30/09; Texas, #T104704197-06-TX valid through 5/31/09; North Carolina, #527 valid through 12/31/09; South Carolina, #96021001 valid through 6/30/09.

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Applied Environmental Technology	**Service Request No.:**	J0901508
Project:	Baffle Box Research	**Date Received:**	3/27/09
Sample Matrix:	solid		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

Sample Receipt

3 solid samples were received for analysis at Columbia Analytical Services on 3/27/09. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 4±2°C upon receipt at the lab.

General Chemistry Parameters

Samples were composited and ground using a SPEX 6850 freezer Mill prior to sample analysis.

Relative Percent Difference Exceptions

The Relative Percent Difference (RPD) for the replicate analysis of Total Kjeldahl Nitrogen in sample 24 was outside the normal CAS control limits. The variability in the results is attributed to the heterogeneous character of the sample. The sample contained relatively large amounts of twigs and leafs and vegetation, which created difficulties during the homogenization process. Standard mixing techniques were used, but were not sufficient for complete homogenization of this sample.

Matrix Spike Recovery Exceptions

The control criteria for matrix spike recovery of Total Kjeldahl Nitrogen, Total Phosphorus and Nitrate+Nitrite for sample 24 and 21 are not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

Approved by Tam D. Thissing **Date** 4/8/09

Florida DEP Data Qualifiers

B Results based upon colony counts outside the acceptable range.

D Measurement was made in the field.

H Value based on field kit determination; results may not be accurate.

i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J Estimated value (one of the following reasons is discussed in the project case narrative).
1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
2. No known quality control criteria exists for the component.
3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).

K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).

L Off scale high. The analyte is above the upper limit of the linear calibration range.

M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.

N Presumptive evidence of the analyte. Confirmation was not performed.

Q Sample held beyond the accepted holding time.

T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.

U Indicates that the compound was analyzed for but not detected.

V Indicates that the analyte was detected in both the sample and the associated method blank.

Y The laboratory analysis was from an improperly preserved sample.

Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: Applied Environmental Technology
Project: Baffle Box Research

Service Request: J0901508

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
J0901508-001	24	3/19/09	13:00
J0901508-002	2	3/19/09	13:00
J0901508-003	21	3/19/09	13:00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GPI Southeast
Project Name : Baffle Box Research
Project Number : NA
Sample Matrix : SOLID

Service Request : J0901508
Date Collected : 03/19/09
Date Received : 03/27/09

Inorganic Parameters

Sample Name : 24
Lab Code : J0901508-001
Test Notes :

Basis : Dry

Analyte	Units	Analysis Method	MRL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/Kg (ppm)	350.1M	2.1	1	04/08/09 11:43	8.7	
Carbon, Total Organic	mg/Kg (ppm)	9060M	215	5	04/07/09 15:34	10000	
Nitrite+Nitrate as Nitrogen	mg/Kg (ppm)	353.2M	43	50	04/07/09 12:03	400	
Nitrogen, Total Kjeldahl (TKN)	mg/Kg (ppm)	351.2	125	5	04/08/09 09:31	8600	J3
Phosphorus, Total	mg/Kg (ppm)	365.1	11	10	04/07/09 15:58	980	J3

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GPI Southeast
Project Name : Baffle Box Research
Project Number : NA
Sample Matrix : SOLID

Service Request : J0901508
Date Collected : 03/19/09
Date Received : 03/27/09

Inorganic Parameters

Sample Name : 2
Lab Code : J0901508-002
Test Notes :

Basis : Dry

Analyte	Units	Analysis Method	MRL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/Kg (ppm)	350.1M	2.2	1	04/08/09 11:43	200	
Carbon, Total Organic	mg/Kg (ppm)	9060M	224	5	04/07/09 15:34	15000	
Nitrite+Nitrate as Nitrogen	mg/Kg (ppm)	353.2M	45	50	04/07/09 12:03	550	
Nitrogen, Total Kjeldahl (TKN)	mg/Kg (ppm)	351.2	250	10	04/08/09 09:31	18000	
Phosphorus, Total	mg/Kg (ppm)	365.1	5.6	5	04/07/09 15:58	1100	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GPI Southeast
Project Name : Baffle Box Research
Project Number : NA
Sample Matrix : SOLID

Service Request : J0901508
Date Collected : 03/19/09
Date Received : 03/27/09

Inorganic Parameters

Sample Name : 21
Lab Code : J0901508-003
Test Notes :

Basis : Dry

Analyte	Units	Analysis Method	MRL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/Kg (ppm)	350.1M	2.6	1	04/08/09 11:43	69	
Carbon, Total Organic	mg/Kg (ppm)	9060M	265	5	04/07/09 15:34	11000	
Nitrite+Nitrate as Nitrogen	mg/Kg (ppm)	353.2M	53	50	04/07/09 12:03	450	J3
Nitrogen, Total Kjeldahl (TKN)	mg/Kg (ppm)	351.2	250	10	04/08/09 09:31	19000	
Phosphorus, Total	mg/Kg (ppm)	365.1	6.6	5	04/07/09 15:58	1100	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GPI Southeast
Project Name : Baffle Box Research
Project Number : NA
Sample Matrix : SOLID

Service Request : J0901508
Date Collected : NA
Date Received : NA

Inorganic Parameters

Sample Name : Method Blank
Lab Code : J0901508-MB
Test Notes :

Basis : Dry

Analyte	Units	Analysis Method	MRL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/Kg (ppm)	350.1M	0.5	1	04/08/09 11:43	U	
Carbon, Total Organic	mg/Kg (ppm)	9060M	10	1	04/07/09 15:34	U	
Nitrite+Nitrate as Nitrogen	mg/Kg (ppm)	353.2M	0.2	1	04/07/09 12:03	U	
Nitrogen, Total Kjeldahl (TKN)	mg/Kg (ppm)	351.2	25	1	04/08/09 09:31	U	
Phosphorus, Total	mg/Kg (ppm)	365.1	0.25	1	04/07/09 15:58	U	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GPI Southeast
Project Name : Baffle Box Research
Project Number : NA
Sample Matrix : SOLID

Service Request : J0901508
Date Collected : 03/19/09
Date Received : 03/27/09

Solids, Total

Units : PERCENT
Basis : NA

Analysis Method : 160.3 MOD
Test Notes :

Sample Name	Lab Code	MRL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
24	J0901508-001	0.1	1	04/01/09 15:00	23	
2	J0901508-002	0.1	1	04/01/09 15:00	22	
21	J0901508-003	0.1	1	04/01/09 15:00	19	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GPI Southeast
Project Name : Baffle Box Research
Project Number : NA
Sample Matrix : SOLID

Service Request : J0901508
Date Collected : 03/19/09
Date Received : 03/27/09
Date Extracted : NA
Date Analyzed : 04/01/09

Duplicate Summary
Inorganic Parameters

Sample Name : 24
Lab Code : J0901508-001DUP
Test Notes :

Units : PERCENT
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Solids, Total	160.3 MOD	0.1	20	23	20	<1	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GPI Southeast
Project Name : Baffle Box Research
Project Number : NA
Sample Matrix : SOLID

Service Request : J0901508
Date Collected : 03/19/09
Date Received : 03/27/09
Date Extracted : 04/07/09
Date Analyzed : 04/07,08/09

Duplicate Summary
Inorganic Parameters

Sample Name : 24
Lab Code : J0901508-001DUP
Test Notes :

Basis : Dry

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Ammonia as Nitrogen	mg/Kg (ppm)	350.1M	2.1	8.7	7.4	8.05	16	
Nitrogen, Total Kjeldahl (TKN)	mg/Kg (ppm)	351.2	125	8600	6900	7750	22	J3
Phosphorus, Total	mg/Kg (ppm)	365.1	11	980	1100	1040	12	J3

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GPI Southeast
Project Name : Baffle Box Research
Project Number : NA
Sample Matrix : SOLID

Service Request : J0901508
Date Collected : 03/19/09
Date Received : 03/27/09
Date Extracted : 04/07/09
Date Analyzed : 04/07,08/09

Matrix Spike Summary
Inorganic Parameters

Sample Name : 24
Lab Code : J0901508-001MS
Test Notes :

Basis : Dry

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Ammonia as Nitrogen	mg/Kg (ppm)	350.1M	2.1	211	8.7	218	99	85-115	
Nitrogen, Total Kjeldahl (TKN)	mg/Kg (ppm)	351.2	125	1087	8600	6510	NC	90-110	J3
Phosphorus, Total	mg/Kg (ppm)	365.1	11	62.5	980	1030	NC	90-110	J3

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GPI Southeast
Project Name : Baffle Box Research
Project Number : NA
Sample Matrix : SOLID

Service Request : J0901508
Date Collected : 03/19/09
Date Received : 03/27/09
Date Extracted : NA
Date Analyzed : 04/07/09

Duplicate Summary
Inorganic Parameters

Sample Name : 21
Lab Code : J0901508-003DUP
Test Notes :

Basis : Dry

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Carbon, Total Organic	mg/Kg (ppm)	9060M	265	11000	11000	11000	<1	
Nitrite+Nitrate as Nitrogen	mg/Kg (ppm)	353.2M	53	450	470	460	4	J3

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GPI Southeast
Project Name : Baffle Box Research
Project Number : NA
Sample Matrix : SOLID

Service Request : J0901508
Date Collected : 03/19/09
Date Received : 03/27/09
Date Extracted : NA
Date Analyzed : 04/07/09

Matrix Spike Summary
Inorganic Parameters

Sample Name : 21
Lab Code : J0901508-003MS
Test Notes :

Basis : Dry

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Carbon, Total Organic	mg/Kg (ppm)	9060M	265	10463	11000	20700	93	85-115	
Nitrite+Nitrate as Nitrogen	mg/Kg (ppm)	353.2M	53	106	450	410	NC	90-110	J3

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	GPI Southeast	**Service Request :**	J0901508
Project Name :	Baffle Box Research	**Date Collected :**	NA
Project Number :	NA	**Date Received :**	NA
Sample Matrix :	SOLID	**Date Extracted :**	04/07/09
		Date Analyzed :	04/07,08/09

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : J0901508-LCS
Test Notes :

Basis : Dry

Analyte	Units	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Ammonia as Nitrogen	mg/Kg (ppm)	350.1M	50.0	48.8	98	90-110	
Carbon, Total Organic	mg/Kg (ppm)	9060M	500	480	96	85-115	
Nitrite+Nitrate as Nitrogen	mg/Kg (ppm)	353.2M	2.5	2.68	107	90-110	
Nitrogen, Total Kjeldahl (TKN)	mg/Kg (ppm)	351.2	250	256	102	90-110	
Phosphorus, Total	mg/Kg (ppm)	365.1	12.5	12.5	100	90-110	

Report By: Palimi

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: GPI Southeast Inc Service Request # J0901508
Project: Baffle Box Research

Cooler received on 3-27-09 and opened on 3-27-09 by SC

COURIER: CAS UPS FEDEX DHL CLIENT Tracking #

1	Were custody seals on outside of cooler?	Yes	No	N/A
2	Were seals intact, signed and dated?	Yes	No	N/A
3	Were custody papers properly filled out?	Yes	No	N/A
4	Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C) Room Temp			
5	Correct Temperature?	Yes	No	N/A
6	Were Ice or Ice Packs present	Yes	No	N/A
7	Did all bottles arrive in good condition (unbroken, etc....)?	Yes	No	N/A
8	Were all bottle labels complete (sample ID, preservation, etc....)?	Yes	No	N/A
9	Did all bottle labels and tags agree with custody papers?	Yes	No	N/A
10	Were the correct bottles used for the tests indicated?	Yes	No	N/A
11	Were all of the preserved bottles received with the appropriate preservative?	Yes	No	N/A

HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2

Preservative additions noted below

12	Were all samples received within analysis holding times?	Yes	No	N/A
13	Were VOA vials checked for absence of air bubbles? If present, note below	Yes	No	N/A
14	Where did the bottles originate?	CAS	Client	

Sample ID	Reagent	Manuf. Lot # or CAS Chem ID	ml added	Inititials

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted: Date:

SR # : J 0901508 Date: 3-27-09 Initials: SC

Note that pH is checked and meets the required pH criterion listed in the column heading unless otherwise noted on cooler receipt form.

	Bottle Code																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	40mL	40mL	40mL	40mL	125mL	125mL	125mL	125mL	250mL	250mL	250mL	250mL	250mL	250mL	250mL	500mL	500mL	500mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	5g	100mL	Misc.
Container	G	G	G	G	P	P	P	P	P	P	P	P	P	G	G	P	P	P	P	P	G	G	G	G	G	G	G	ENC	P	Misc.
Pres.		HCl	Sodium Thiosulfate	H2SO4		HCl	H2SO4	HNO3		H2SO4	HNO3	ZnAcetate NaOH	NaOH		HNO3		H2SO4	HNO3		HNO3		HCl	H2SO4						Sodium Thiosulfate	
Req. pH	N/A	<2	N/A	<2	N/A	<2	<2	<2	N/A	<2	<2	>9	>12	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-		-	-	-				-	-
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Columbia Analytical Services INC.
An Employee - Owned Company
www.caslab.com

CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 / Phone (904) 739-2277 / 800-695-7222 x06 / FAX (904) 739-2011

SR # J0901508
CAS Contact

Page ___ of [redacted]

Project Name: Baffle Box Research	Project Number:
Report To: **Daniel Smith** **dpsmith_aet@verizon.net** **813 864 5735**	Report CC:
Company/Address: GPI Southeast inc. 13097 N Telecom Parkway Tampa FL 33637	
Phone #: 813 632 7690	FAX #:
Sampler's Signature: Daniel P. Smith	Sampler's Printed Name: Daniel Smith

ANALYSIS REQUESTED (Include Method Number [redacted]

Preservative: 1. HCL; 2. HNO3; 3. H2SO4; 4. NaOH; 5. Zn. Acetate; 6. MeOH; 7. NaHSO4

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	Matrix	NUMBER OF CONTAINERS	Total solids	TKN	Total Phosphorus	Compositing	Grinding	REMARKS
24		5/25	1300	SCM	1	X	X	X	X	X	
2		"	"	SCM	1	X	X	X	X	X	
11		"	"	SCM	1	X	X	X	X	X	
	SCM = Stormwater cleanout material										
See attached Columbia quote for analyses											

Special Instructions/Comments:

TURNAROUND REQUIREMENTS
___ RUSH (SURCHARGES APPLY)
___ STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
Edata ___ Yes ___ No

INVOICE INFORMATION
P.O. # ___
Bill to: ___

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature	Signature: Shawn Cyltky	Signature	Signature	Signature	Signature
Printed Name	Printed Name: Shawn Cyltky	Printed Name	Printed Name	Printed Name	Printed Name
Firm	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time	Date/Time: 3-27-09 1255	Date/Time	Date/Time	Date/Time	Date/Time

April 13, 2009

J. Rodriquez
GPI Southeast
13097 N. Telecom Parkway
Tampa, FL 33637

RE: Baffle Box Order No.: F09031034

Dear J. Rodriquez:

Pace Analytical Services, Inc received 4 samples on 3/26/2009 8:46:00 AM for the analyses presented in the following report. The results included in this report relate only to the samples received. Analyses are performed with method-required calibration and QA/QC samples whenever applicable. Method performance, which is based on the calibration and QA/QC samples, establishes the validity and certainty of the reported sample results. This data is provided along with the sample results when requested.

Thank you for this opportunity to be of service. If you have any questions regarding this data, please feel free to call me at (386) 672-5668, extension 308.

Sincerely,
Martha Montero

Project Manager
Pace Analytical Services, Inc.
P.O. Box 468
Ormond Beach, FL 32175-0468

The test results in this report meet the requirements
the 2003 NELAC standards unless otherwise noted

The following acronyms may be utilized within this report:

%REC	Percent Recovery
A	Absent
ABLK	Analytical Method Blank
CG	Confluent Growth
CGB	Confluent Growth Without Coliforms
CGC	Confluent Growth With Coliforms
DUP	Sample Duplicate
dw	Dry Weight
kg	Kilograms
L	Liter
LCS	Laboratory Control Spike (may also be appended with an abbreviation indicating spiking level)
MBLK	Preparation Method Blank
MDL	Laboratory Method Detection Limit
mg	Milligrams
ml	Milliliter
MS	Matrix Spike (may also be appended with an abbreviation indicating spiking level)
MSD	Matrix Spike Duplicate (may also be appended with an abbreviation indicating spiking level)
P	Present
PQL	Practical Quantitation Limit
QCS	Alternate source Calibration Verification Standard (may also be reported as analytical LCS in some
RL	Reporting Limit
RPD	Relative Percent Difference
SPK	Spike
SUB	Indicates subcontracted analytical results
TIC	Tentatively Identified Compound
TNTC	Too Numerous To Count
ug	Micrograms

The following notes may apply to analytical results within this report:

Residue (solids) analysis may employ a single, heated drying process of at least 12 hours duration in lieu of employing short, repeated drying cycles, which represents a deviation from the methodology.

Because the EPA-recommended holding time for pH, residual chlorine, chloramines and chlorine dioxide is 15 minutes from time of collection, these analyses are routinely performed outside of their EPA-recommended holding time when performed in the laboratory.

Analytical results for ammonia analysis, or calculated analytical results depending on ammonia analysis, do not include a sample distillation procedure. A study comparing distilled versus non-distilled analytical results has been performed to document the validity of the analysis without prior distillation, and represents equivalent results for the represented project matrices.

Since N-nitrosodiphenylamine decomposes in the GC inlet and cannot be chromatographically resolved from diphenylamine, these compounds are reported as a single analyte in the report.

Since m-cresol and p-cresol cannot be chromatographically resolved, these compounds are reported as a single analyte in the report.

Because 1,2-diphenylhydrazine breaks down rapidly to azobenzene at the GC inlet after initial smple injection, all results for this compound will be quantified as azobenzene.

All analytical results are provide on an "as received" basis unless units include the term "dw", indicating that the analytical results are provided on a dry weight basis.

The following certifications may apply to analytical results within this report:

Alabama	DEM	41320
Arizona	DHS	AZ0640
Colorado	DPHE	FL NELAC Reciprocity
Connecticut	DPH	PH-0216
Florida	DOH	E83079
Georgia	DNR	955
Kentucky	DEP	90050
Louisiana	DHH	LA090012
Maine	LCP	FL020
Massachusetts	DEP	M-FL1264
Michigan	DEQ	9911
Mississippi	DOH	FL NELAC Reciprocity
Nevada	EP	NAC 445A
New Hampshire	DES	2958
New Jersey	DEP	FL765
New York	DOH	11608
North Carolina	NCPH	12710
Pennsylvania	DEP	68-547
Puerto Rico	DOH	FL 00020
Tennessee	DOH	TN02974
Texas	CEQ	TX246
Virginia	DGS	432

WorkOrder Sample Summary

CLIENT: GPI Southeast*
Project: Baffle Box
Lab Order: F09031034

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
F09031034-001	Baffle Box 15	Lincoln	3/25/2009 9:30:00 AM	3/26/2009
F09031034-001	Baffle Box 15	Lincoln	3/25/2009 9:30:00 AM	3/26/2009
F09031034-001	Baffle Box 15	Lincoln	3/25/2009 9:30:00 AM	3/26/2009
F09031034-001	Baffle Box 15	Lincoln	3/25/2009 9:30:00 AM	3/26/2009
F09031034-001E	Baffle Box 15	Lincoln	3/25/2009 9:30:00 AM	3/26/2009
F09031034-002	Baffle Box 17	Parkway	3/25/2009 10:00:00 AM	3/26/2009
F09031034-002	Baffle Box 17	Parkway	3/25/2009 10:00:00 AM	3/26/2009
F09031034-002	Baffle Box 17	Parkway	3/25/2009 10:00:00 AM	3/26/2009
F09031034-002	Baffle Box 17	Parkway	3/25/2009 10:00:00 AM	3/26/2009
F09031034-002E	Baffle Box 17	Parkway	3/25/2009 10:00:00 AM	3/26/2009
F09031034-003	Baffle Box 26	Rockledge	3/25/2009 1:00:00 PM	3/26/2009
F09031034-003	Baffle Box 26	Rockledge	3/25/2009 1:00:00 PM	3/26/2009
F09031034-003	Baffle Box 26	Rockledge	3/25/2009 1:00:00 PM	3/26/2009
F09031034-003	Baffle Box 26	Rockledge	3/25/2009 1:00:00 PM	3/26/2009
F09031034-003E	Baffle Box 26	Rockledge	3/25/2009 1:00:00 PM	3/26/2009
F09031034-004	Baffle Box 74	Sarasota	3/25/2009 5:00:00 PM	3/26/2009
F09031034-004	Baffle Box 74	Sarasota	3/25/2009 5:00:00 PM	3/26/2009
F09031034-004	Baffle Box 74	Sarasota	3/25/2009 5:00:00 PM	3/26/2009
F09031034-004	Baffle Box 74	Sarasota	3/25/2009 5:00:00 PM	3/26/2009
F09031034-004E	Baffle Box 74	Sarasota	3/25/2009 5:00:00 PM	3/26/2009

Case Narrative

CLIENT: GPI Southeast
Project: Baffle Box
Lab Order: F09031034

I. SAMPLE RECEIVING/ CUSTODY

The samples were received and processed by the Sample Custody section of the laboratory. There were no significant logistics or quality problems unless noted below. All sample containers received for this report were collected by either the client or an agent of the client. Any field data results contained within this report were therefore generated by the client and were reported at the request of the client.

Containers were sent to a client-approved subcontract laboratory for BOD, Ortho Phosphorus and TSS determination (certification number E84973).

II. ANALYTICAL DATA

The samples were analyzed according to the laboratory's Standard Operating Procedures for the methodologies requested. There were no significant logistics or quality problems unless noted below or in the text of the report.

III. QUALITY CONTROL

There were no significant quality control problems unless noted below or in the text of the report.

Analytical Report

CLIENT: GPI Southeast
Lab Order: F09031034
Project: Baffle Box
Lab ID: F09031034-001

Client Sample ID: Baffle Box 15
Collection Date: 3/25/2009 9:30:00 AM
Sample Description: Lincoln
Matrix: Surface Water

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
BOD-CARBONACEOUS		**SM5210 B**	PrepDate:	**3/27/2009 9:04:00 A**			Analyst: **JSE**	
Carbonaceous BOD	2.0	U	2.0	2.0	mg/L	1	03/27/09 09:04	60428
ORTHOPHOSPHATE AS P		**SM4500P-E**	PrepDate:				Analyst: **JSE**	
Phosphorus, Orthophosphate (As P)	0.029	I	0.0089	0.10	mg/L	1	03/26/09 12:17	R77519
SOLIDS, TOTAL SUSPENDED (RESIDUE, NO		**SM2540 D**	PrepDate:	**4/1/2009**			Analyst: **JSE**	
Solids, Suspended (Residue, Non-Filterable)	12		5.0	5.0	mg/L	1	04/01/09 12:00	60537
CHEMICAL OXYGEN DEMAND		**E410.4**	PrepDate:	**4/2/2009 11:10:00 A**			Analyst: **SSM**	
Chemical Oxygen Demand	31		12	25	mg/L	1	04/03/09 10:51	R77766
NITROGEN, AMMONIA		**E350.1**	PrepDate:				Analyst: **TKE**	
Nitrogen, Ammonia (As N)	0.14		0.020	0.050	mg/L	1	03/30/09 12:59	R77583B
NITROGEN, NITRATE-NITRITE		**E353.2**	PrepDate:				Analyst: **TKE**	
Nitrogen, Nitrate-Nitrite	0.10		0.025	0.050	mg/L	1	03/31/09 15:01	R77631B
NITROGEN, TOTAL KJELDAHL		**E351.2**	PrepDate:	**3/31/2009 9:15:00 A**			Analyst: **TKE**	
Nitrogen, Kjeldahl, Total	0.95		0.071	0.50	mg/L	1	04/02/09 12:12	60492
PHOSPHORUS, TOTAL		**E365.4**	PrepDate:	**3/31/2009 9:15:00 A**			Analyst: **TKE**	
Phosphorus, Total (as P)	0.13		0.050	0.10	mg/L	1	04/02/09 12:12	60492

Data Qualifier Code Key:

I Analyte detected below quantitation limits

U Not Detected Above the MDL

Analytical Report

CLIENT: GPI Southeast
Lab Order: F09031034
Project: Baffle Box
Lab ID: F09031034-002

Client Sample ID: Baffle Box 17
Collection Date: 3/25/2009 10:00:00 AM
Sample Description: Parkway
Matrix: Surface Water

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
BOD-CARBONACEOUS		**SM5210 B**	PrepDate:	**3/27/2009 9:04:00 A**			Analyst: **JSE**	
Carbonaceous BOD	2.0	U	2.0	2.0	mg/L	1	03/27/09 09:04	60428
ORTHOPHOSPHATE AS P		**SM4500P-E**	PrepDate:				Analyst: **JSE**	
Phosphorus, Orthophosphate (As P)	0.50		0.0089	0.10	mg/L	1	03/26/09 12:18	R77519
SOLIDS, TOTAL SUSPENDED (RESIDUE, NO		**SM2540 D**	PrepDate:	**4/1/2009**			Analyst: **JSE**	
Solids, Suspended (Residue, Non-Filterable)	5.0	U	5.0	5.0	mg/L	1	04/01/09 12:00	60537
CHEMICAL OXYGEN DEMAND		**E410.4**	PrepDate:	**4/2/2009 11:10:00 A**			Analyst: **SSM**	
Chemical Oxygen Demand	22	I	12	25	mg/L	1	04/03/09 10:51	R77766
NITROGEN, AMMONIA		**E350.1**	PrepDate:				Analyst: **TKE**	
Nitrogen, Ammonia (As N)	0.020	U	0.020	0.050	mg/L	1	03/30/09 13:01	R77583B
NITROGEN, NITRATE-NITRITE		**E353.2**	PrepDate:				Analyst: **TKE**	
Nitrogen, Nitrate-Nitrite	0.97		0.025	0.050	mg/L	1	03/31/09 15:02	R77631B
NITROGEN, TOTAL KJELDAHL		**E351.2**	PrepDate:	**3/31/2009 9:15:00 A**			Analyst: **TKE**	
Nitrogen, Kjeldahl, Total	0.65		0.071	0.50	mg/L	1	04/02/09 12:19	60492
PHOSPHORUS, TOTAL		**E365.4**	PrepDate:	**3/31/2009 9:15:00 A**			Analyst: **TKE**	
Phosphorus, Total (as P)	0.57		0.050	0.10	mg/L	1	04/02/09 12:19	60492

Data Qualifier Code Key:

I Analyte detected below quantitation limits

U Not Detected Above the MDL

Analytical Report

CLIENT: GPI Southeast
Lab Order: F09031034
Project: Baffle Box
Lab ID: F09031034-003

Client Sample ID: Baffle Box 26
Collection Date: 3/25/2009 1:00:00 PM
Sample Description: Rockledge
Matrix: Surface Water

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
BOD-CARBONACEOUS		**SM5210 B**	PrepDate:	**3/27/2009 9:04:00 A**			Analyst: **JSE**	
Carbonaceous BOD	10		2.0	2.0	mg/L	1	03/27/09 09:04	60428
ORTHOPHOSPHATE AS P		**SM4500P-E**	PrepDate:				Analyst: **JSE**	
Phosphorus, Orthophosphate (As P)	0.60		0.0089	0.10	mg/L	1	03/26/09 12:19	R77519
SOLIDS, TOTAL SUSPENDED (RESIDUE, NO		**SM2540 D**	PrepDate:	**4/1/2009**			Analyst: **JSE**	
Solids, Suspended (Residue, Non-Filterable)	8.5		5.0	5.0	mg/L	1	04/01/09 12:00	60537
CHEMICAL OXYGEN DEMAND		**E410.4**	PrepDate:	**4/2/2009 11:10:00 A**			Analyst: **SSM**	
Chemical Oxygen Demand	91		12	25	mg/L	1	04/03/09 10:51	R77766
NITROGEN, AMMONIA		**E350.1**	PrepDate:				Analyst: **TKE**	
Nitrogen, Ammonia (As N)	0.25		0.020	0.050	mg/L	1	03/30/09 13:02	R77583B
NITROGEN, NITRATE-NITRITE		**E353.2**	PrepDate:				Analyst: **TKE**	
Nitrogen, Nitrate-Nitrite	0.025	U	0.025	0.050	mg/L	1	03/31/09 15:04	R77631B
NITROGEN, TOTAL KJELDAHL		**E351.2**	PrepDate:	**3/31/2009 9:15:00 A**			Analyst: **TKE**	
Nitrogen, Kjeldahl, Total	2.2		0.071	0.50	mg/L	1	04/02/09 12:20	60492
PHOSPHORUS, TOTAL		**E365.4**	PrepDate:	**3/31/2009 9:15:00 A**			Analyst: **TKE**	
Phosphorus, Total (as P)	0.89		0.050	0.10	mg/L	1	04/02/09 12:20	60492

Data Qualifier Code Key:

I Analyte detected below quantitation limits

U Not Detected Above the MDL

Analytical Report

CLIENT: GPI Southeast
Lab Order: F09031034
Project: Baffle Box
Lab ID: F09031034-004

Client Sample ID: Baffle Box 74
Collection Date: 3/25/2009 5:00:00 PM
Sample Description: Sarasota
Matrix: Surface Water

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
BOD-CARBONACEOUS		**SM5210 B**	PrepDate:	**3/27/2009 9:04:00 A**			Analyst: **JSE**	
Carbonaceous BOD	28		2.0	2.0	mg/L	1	03/27/09 09:04	60428
ORTHOPHOSPHATE AS P		**SM4500P-E**	PrepDate:				Analyst: **JSE**	
Phosphorus, Orthophosphate (As P)	1.1		0.018	0.20	mg/L	2	03/26/09 12:34	R77519
SOLIDS, TOTAL SUSPENDED (RESIDUE, NO		**SM2540 D**	PrepDate:	**4/1/2009**			Analyst: **JSE**	
Solids, Suspended (Residue, Non-Filterable)	8.3		5.0	5.0	mg/L	1	04/01/09 12:00	60537
CHEMICAL OXYGEN DEMAND		**E410.4**	PrepDate:	**4/2/2009 11:10:00 A**			Analyst: **SSM**	
Chemical Oxygen Demand	120		12	25	mg/L	1	04/03/09 10:51	R77766
NITROGEN, AMMONIA		**E350.1**	PrepDate:				Analyst: **TKE**	
Nitrogen, Ammonia (As N)	1.2		0.020	0.050	mg/L	1	03/30/09 14:04	R77583C
NITROGEN, NITRATE-NITRITE		**E353.2**	PrepDate:				Analyst: **TKE**	
Nitrogen, Nitrate-Nitrite	0.027	I	0.025	0.050	mg/L	1	03/31/09 15:05	R77631B
NITROGEN, TOTAL KJELDAHL		**E351.2**	PrepDate:	**3/31/2009 9:15:00 A**			Analyst: **TKE**	
Nitrogen, Kjeldahl, Total	3.9		0.071	0.50	mg/L	1	04/02/09 12:22	60492
PHOSPHORUS, TOTAL		**E365.4**	PrepDate:	**3/31/2009 9:15:00 A**			Analyst: **TKE**	
Phosphorus, Total (as P)	1.4		0.050	0.10	mg/L	1	04/02/09 12:22	60492

Data Qualifier Code Key:

I Analyte detected below quantitation limits

U Not Detected Above the MDL

CLIENT: GPI Southeast
Work Order: F09031034
Project: Baffle Box

ANALYTICAL QC SUMMARY REPORT

TestCode: COD

Sample ID: **MB-R77766** SampType: **MBLK** TestCode: **COD** Units: **mg/L** Prep Date: **4/2/2009** RunNo: **77766**
Client ID: **MB-R77766** Batch ID: **R77766** TestNo: **E410.4** Analysis Date: **4/3/2009** SeqNo: **2373683**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Chemical Oxygen Demand	12	U	12								

Sample ID: **LCS-R77766** SampType: **LCS** TestCode: **COD** Units: **mg/L** Prep Date: **4/2/2009** RunNo: **77766**
Client ID: **LCS-R77766** Batch ID: **R77766** TestNo: **E410.4** Analysis Date: **4/3/2009** SeqNo: **2373684**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Chemical Oxygen Demand	510		12	500	0	103	90	110			

Sample ID: **F09031034-001DMS** SampType: **MS** TestCode: **COD** Units: **mg/L** Prep Date: **4/2/2009** RunNo: **77766**
Client ID: **Baffle Box 15 MS** Batch ID: **R77766** TestNo: **E410.4** Analysis Date: **4/3/2009** SeqNo: **2373687**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Chemical Oxygen Demand	540		12	500	31	101	90	110			

Sample ID: **F09031034-001DDUP** SampType: **DUP** TestCode: **COD** Units: **mg/L** Prep Date: **4/2/2009** RunNo: **77766**
Client ID: **Baffle Box 15 DUP** Batch ID: **R77766** TestNo: **E410.4** Analysis Date: **4/3/2009** SeqNo: **2373686**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Chemical Oxygen Demand	33		12						31	6.85	20

Data Qualifier Code Key:

I	Analyte detected below quantitation limits	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	U	Not Detected Above the MDL

CLIENT: GPI Southeast
Work Order: F09031034
Project: Baffle Box

ANALYTICAL QC SUMMARY REPORT

TestCode: N-NH3_W

Sample ID: **QCS** SampType: **QCS** TestCode: **N-NH3_W** Units: **mg/L** Prep Date: RunNo: **77583**
Client ID: **QCS** Batch ID: **R77583** TestNo: **E350.1** Analysis Date: **3/30/2009** SeqNo: **2368323**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Ammonia (As N)	9.5		0.020	10	0	94.8	90	110			

Sample ID: **MB-R77583B** SampType: **MBLK** TestCode: **N-NH3_W** Units: **mg/L** Prep Date: RunNo: **77583**
Client ID: **MB-R77583B** Batch ID: **R77583B** TestNo: **E350.1** Analysis Date: **3/30/2009** SeqNo: **2368364**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Ammonia (As N)	0.020	U	0.020								

Sample ID: **LCS-R77583B** SampType: **LCS** TestCode: **N-NH3_W** Units: **mg/L** Prep Date: RunNo: **77583**
Client ID: **LCS-R77583B** Batch ID: **R77583B** TestNo: **E350.1** Analysis Date: **3/30/2009** SeqNo: **2368365**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Ammonia (As N)	1.0		0.020	1.0	0	99.7	90	110			

Sample ID: **F09030983-002DMS** SampType: **MS** TestCode: **N-NH3_W** Units: **mg/L** Prep Date: RunNo: **77583**
Batch ID: **R77583B** TestNo: **E350.1** Analysis Date: **3/30/2009** SeqNo: **2368368**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Ammonia (As N)	1.1		0.020	1.0	0.068	101	90	110			

Sample ID: **F09030983-002DDUP** SampType: **DUP** TestCode: **N-NH3_W** Units: **mg/L** Prep Date: RunNo: **77583**
Batch ID: **R77583B** TestNo: **E350.1** Analysis Date: **3/30/2009** SeqNo: **2368367**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Ammonia (As N)	0.064		0.020						0.068	6.06	20

Data Qualifier Code Key:

I	Analyte detected below quantitation limits	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	U	Not Detected Above the MDL

CLIENT: GPI Southeast
Work Order: F09031034
Project: Baffle Box

ANALYTICAL QC SUMMARY REPORT

TestCode: N-NH3_W

Sample ID: **MB-R77583C** SampType: **MBLK** TestCode: **N-NH3_W** Units: **mg/L** Prep Date: RunNo: **77583**
Client ID: **MB-R77583C** Batch ID: **R77583C** TestNo: **E350.1** Analysis Date: **3/30/2009** SeqNo: **2368392**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Ammonia (As N)	0.020	U	0.020								

Sample ID: **LCS-R77583C** SampType: **LCS** TestCode: **N-NH3_W** Units: **mg/L** Prep Date: RunNo: **77583**
Client ID: **LCS-R77583C** Batch ID: **R77583C** TestNo: **E350.1** Analysis Date: **3/30/2009** SeqNo: **2368393**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Ammonia (As N)	0.98		0.020	1.0	0	97.5	90	110			

Sample ID: **F09031034-004DMS** SampType: **MS** TestCode: **N-NH3_W** Units: **mg/L** Prep Date: RunNo: **77583**
Client ID: **Baffle Box 74 MS** Batch ID: **R77583C** TestNo: **E350.1** Analysis Date: **3/30/2009** SeqNo: **2368397**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Ammonia (As N)	2.2		0.020	1.0	1.2	98.0	90	110			

Sample ID: **F09031034-004DDUP** SampType: **DUP** TestCode: **N-NH3_W** Units: **mg/L** Prep Date: RunNo: **77583**
Client ID: **Baffle Box 74 DUP** Batch ID: **R77583C** TestNo: **E350.1** Analysis Date: **3/30/2009** SeqNo: **2368396**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Ammonia (As N)	1.2		0.020						1.2	0.646	20

Data Qualifier Code Key:

I	Analyte detected below quantitation limits	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	U	Not Detected Above the MDL

CLIENT: GPI Southeast
Work Order: F09031034
Project: Baffle Box

ANALYTICAL QC SUMMARY REPORT

TestCode: N-NOX-353.2

Sample ID: **QCS NOX** SampType: **QCS** TestCode: **N-NOX-353.2** Units: **mg/L** Prep Date: RunNo: **77631**
Client ID: **QCS NOX** Batch ID: **R77631** TestNo: **E353.2** Analysis Date: **3/31/2009** SeqNo: **2369871**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Nitrate-Nitrite	2.6		0.025	2.5	0	104	90	110			

Sample ID: **MB-R77631B** SampType: **MBLK** TestCode: **N-NOX-353.2** Units: **mg/L** Prep Date: RunNo: **77631**
Client ID: **MB-R77631B** Batch ID: **R77631B** TestNo: **E353.2** Analysis Date: **3/31/2009** SeqNo: **2369896**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Nitrate-Nitrite	0.025	U	0.025								

Sample ID: **LCS-R77631B** SampType: **LCS** TestCode: **N-NOX-353.2** Units: **mg/L** Prep Date: RunNo: **77631**
Client ID: **LCS-R77631B** Batch ID: **R77631B** TestNo: **E353.2** Analysis Date: **3/31/2009** SeqNo: **2369897**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Nitrate-Nitrite	1.1		0.025	1.0	0	108	90	110			

Sample ID: **F09031020-001AMS** SampType: **MS** TestCode: **N-NOX-353.2** Units: **mg/L** Prep Date: RunNo: **77631**
Batch ID: **R77631B** TestNo: **E353.2** Analysis Date: **3/31/2009** SeqNo: **2369905**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Nitrate-Nitrite	2.0	S	0.025	1.0	0.89	**111**	90	110			

Sample ID: **F09031020-001ADUP** SampType: **DUP** TestCode: **N-NOX-353.2** Units: **mg/L** Prep Date: RunNo: **77631**
Batch ID: **R77631B** TestNo: **E353.2** Analysis Date: **3/31/2009** SeqNo: **2369903**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Nitrate-Nitrite	0.86		0.025						0.89	3.41	20

Data Qualifier Code Key:

I	Analyte detected below quantitation limits	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	U	Not Detected Above the MDL

CLIENT: GPI Southeast
Work Order: F09031034
Project: Baffle Box

ANALYTICAL QC SUMMARY REPORT

TestCode: N-TKN_W

Sample ID: **MB-60492** SampType: **MBLK** TestCode: **N-TKN_W** Units: **mg/L** Prep Date: **3/31/2009** RunNo: **77715**
Client ID: **MB-60492** Batch ID: **60492** TestNo: **E351.2** **E351.2** Analysis Date: **4/2/2009** SeqNo: **2372555**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Kjeldahl, Total	0.071	U	0.071								

Sample ID: **LCS-60492** SampType: **LCS** TestCode: **N-TKN_W** Units: **mg/L** Prep Date: **3/31/2009** RunNo: **77715**
Client ID: **LCS-60492** Batch ID: **60492** TestNo: **E351.2** **E351.2** Analysis Date: **4/2/2009** SeqNo: **2372557**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Kjeldahl, Total	20		0.071	20	0	101	90	110			

Sample ID: **F09031034-001DMS** SampType: **MS** TestCode: **N-TKN_W** Units: **mg/L** Prep Date: **3/31/2009** RunNo: **77715**
Client ID: **Baffle Box 15 MS** Batch ID: **60492** TestNo: **E351.2** **E351.2** Analysis Date: **4/2/2009** SeqNo: **2372567**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Kjeldahl, Total	6.7		0.071	6.0	0.95	95.5	90	110			

Sample ID: **F09031034-001DDUP** SampType: **DUP** TestCode: **N-TKN_W** Units: **mg/L** Prep Date: **3/31/2009** RunNo: **77715**
Client ID: **Baffle Box 15 DUP** Batch ID: **60492** TestNo: **E351.2** **E351.2** Analysis Date: **4/2/2009** SeqNo: **2372561**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Kjeldahl, Total	0.94		0.071						0.95	1.06	20

Sample ID: **QCS** SampType: **QCS** TestCode: **N-TKN_W** Units: **mg/L** Prep Date: RunNo: **77715**
Client ID: **QCS** Batch ID: **R77715** TestNo: **E351.2** Analysis Date: **4/2/2009** SeqNo: **2372443**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Nitrogen, Kjeldahl, Total	19		0.071	20	0	94.8	90	110			

Data Qualifier Code Key:

I	Analyte detected below quantitation limits	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	U	Not Detected Above the MDL

CLIENT: GPI Southeast
Work Order: F09031034
Project: Baffle Box

ANALYTICAL QC SUMMARY REPORT

TestCode: P-TOT_W

Sample ID: **MB-60492** SampType: **MBLK** TestCode: **P-TOT_W** Units: **mg/L** Prep Date: **3/31/2009** RunNo: **77715**
Client ID: **MB-60492** Batch ID: **60492** TestNo: **E365.4** **E351.2** Analysis Date: **4/2/2009** SeqNo: **2372556**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Phosphorus, Total (as P)	0.050	U	0.050								

Sample ID: **LCS-60492** SampType: **LCS** TestCode: **P-TOT_W** Units: **mg/L** Prep Date: **3/31/2009** RunNo: **77715**
Client ID: **LCS-60492** Batch ID: **60492** TestNo: **E365.4** **E351.2** Analysis Date: **4/2/2009** SeqNo: **2372558**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Phosphorus, Total (as P)	4.2		0.050	4.0	0	106	90	110			

Sample ID: **F09031034-001DMS** SampType: **MS** TestCode: **P-TOT_W** Units: **mg/L** Prep Date: **3/31/2009** RunNo: **77715**
Client ID: **Baffle Box 15 MS** Batch ID: **60492** TestNo: **E365.4** **E351.2** Analysis Date: **4/2/2009** SeqNo: **2372568**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Phosphorus, Total (as P)	1.3		0.050	1.2	0.13	100	80	120			

Sample ID: **F09031034-001DDUP** SampType: **DUP** TestCode: **P-TOT_W** Units: **mg/L** Prep Date: **3/31/2009** RunNo: **77715**
Client ID: **Baffle Box 15 DUP** Batch ID: **60492** TestNo: **E365.4** **E351.2** Analysis Date: **4/2/2009** SeqNo: **2372562**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Phosphorus, Total (as P)	0.13		0.050						0.13	0	20

Sample ID: **QCS** SampType: **QCS** TestCode: **P-TOT_W** Units: **mg/L** Prep Date: RunNo: **77715**
Client ID: **QCS** Batch ID: **R77715** TestNo: **E365.4** Analysis Date: **4/2/2009** SeqNo: **2372444**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Phosphorus, Total (as P)	3.9		0.050	4.0	0	98.2	90	110			

Data Qualifier Code Key:

I	Analyte detected below quantitation limits	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	U	Not Detected Above the MDL

CLIENT: GPI Southeast
Work Order: F09031034
Project: Baffle Box

ANALYTICAL QC SUMMARY REPORT

TestCode: T-BOD-C

Sample ID: **MB-60428**	SampType: **MBLK**	TestCode: **T-BOD-C**	Units: **mg/L**	Prep Date: **3/27/2009**	RunNo: **77692**
Client ID: **MB-60428**	Batch ID: **60428**	TestNo: **SM5210 B**	**SM5210 B**	Analysis Date: **3/27/2009**	SeqNo: **2370875**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Carbonaceous BOD	2.0	U	2.0					0.2			

Sample ID: **LCS-60428**	SampType: **LCS**	TestCode: **T-BOD-C**	Units: **mg/L**	Prep Date: **3/27/2009**	RunNo: **77692**
Client ID: **LCS-60428**	Batch ID: **60428**	TestNo: **SM5210 B**	**SM5210 B**	Analysis Date: **3/27/2009**	SeqNo: **2370876**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Carbonaceous BOD	350		2.0	400	0	89.0	84.59	115.4			

Sample ID: **F09031034-004ADUP**	SampType: **DUP**	TestCode: **T-BOD-C**	Units: **mg/L**	Prep Date: **3/27/2009**	RunNo: **77692**
Client ID: **Baffle Box 74 DUP**	Batch ID: **60428**	TestNo: **SM5210 B**	**SM5210 B**	Analysis Date: **3/27/2009**	SeqNo: **2370881**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Carbonaceous BOD	25		2.0						28	13.5	20

Data Qualifier Code Key:

I	Analyte detected below quantitation limits	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	U	Not Detected Above the MDL

CLIENT: GPI Southeast
Work Order: F09031034
Project: Baffle Box

ANALYTICAL QC SUMMARY REPORT

TestCode: T-ORTHOP-4500PE

Sample ID: **BLANK** SampType: **ABLK** TestCode: **T-ORTHOP-45** Units: **mg/L** Prep Date: RunNo: **77519**
Client ID: **BLANK** Batch ID: **R77519** TestNo: **SM4500P-E** Analysis Date: **3/26/2009** SeqNo: **2366148**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Phosphorus, Orthophosphate (As P)	0.0089	U	0.0089								

Sample ID: **QCS** SampType: **QCS** TestCode: **T-ORTHOP-45** Units: **mg/L** Prep Date: RunNo: **77519**
Client ID: **QCS** Batch ID: **R77519** TestNo: **SM4500P-E** Analysis Date: **3/26/2009** SeqNo: **2366155**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Phosphorus, Orthophosphate (As P)	0.62		0.0089	0.60	0	103	90	110			

Sample ID: **F09031034-001CMS** SampType: **MS** TestCode: **T-ORTHOP-45** Units: **mg/L** Prep Date: RunNo: **77519**
Client ID: **Baffle Box 15 MS** Batch ID: **R77519** TestNo: **SM4500P-E** Analysis Date: **3/26/2009** SeqNo: **2366151**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Phosphorus, Orthophosphate (As P)	0.32		0.0089	0.30	0.029	96.1	80	120			

Sample ID: **F09031034-001CDUP** SampType: **DUP** TestCode: **T-ORTHOP-45** Units: **mg/L** Prep Date: RunNo: **77519**
Client ID: **Baffle Box 15 DUP** Batch ID: **R77519** TestNo: **SM4500P-E** Analysis Date: **3/26/2009** SeqNo: **2366150**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Phosphorus, Orthophosphate (As P)	0.026	I	0.0089						0.029	0	20

Data Qualifier Code Key:

I	Analyte detected below quantitation limits	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	U	Not Detected Above the MDL

CLIENT: GPI Southeast
Work Order: F09031034
Project: Baffle Box

ANALYTICAL QC SUMMARY REPORT

TestCode: T-SOLIDS-TSS

Sample ID: **MB-60537** SampType: **MBLK** TestCode: **T-SOLIDS-TS** Units: **mg/L** Prep Date: **4/1/2009** RunNo: **77758**
Client ID: **MB-60537** Batch ID: **60537** TestNo: **SM2540 D** **SM2540 D** Analysis Date: **4/1/2009** SeqNo: **2373352**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Solids, Suspended (Residue, Non-Filtera	5.0	U	5.0								

Sample ID: **LCS-60537** SampType: **LCS** TestCode: **T-SOLIDS-TS** Units: **mg/L** Prep Date: **4/1/2009** RunNo: **77758**
Client ID: **LCS-60537** Batch ID: **60537** TestNo: **SM2540 D** **SM2540 D** Analysis Date: **4/1/2009** SeqNo: **2373353**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Solids, Suspended (Residue, Non-Filtera	79		5.0	80	0	98.8	90	110			

Sample ID: **F09031034-004BDUP** SampType: **DUP** TestCode: **T-SOLIDS-TS** Units: **mg/L** Prep Date: **4/1/2009** RunNo: **77758**
Client ID: **Baffle Box 74 DUP** Batch ID: **60537** TestNo: **SM2540 D** **SM2540 D** Analysis Date: **4/1/2009** SeqNo: **2373358**

Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Solids, Suspended (Residue, Non-	10	R	5.0						8.3	**23.4**	20

Data Qualifier Code Key:

I	Analyte detected below quantitation limits	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	U	Not Detected Above the MDL

Pace Analytical Services
8 East Tower Circle
Ormond Beach, FL 32174
386-672-5668 ● FAX 386-673-4001
(INSTRUCTIONS ON BACK OF THIS FORM)

CHAIN OF CUSTODY RECORD

No. E

Page ____ of ____

FOR LAB USE ONLY
Temp. of Contents: 1.8 °C (or Received on Ice, ROI) 3.7
Condition of Contents: _____
Condition of Seals: _____

FOR LAB USE ONLY
Submission No. 6PDSEU F09031034

1. Client: (Company or Individual)
GPI Southeast
Address: 13097 N Telecom Parkway
City: Tampa State: FL Zip Code: 33637
Phone: (813 632 7690
Fax: ( )

2. Report to: (if different from above)
Daniel Smith
dpsmith_aet@verizon.net
Address: **10809 Cedar Cove Drive**
City: **Tampa** State: **FL** Zip Code: **33592**
Phone: **(813 864 5735**
Fax: ( )

3. Client Project Name:
Baffle Box Research Project LINCOLN
4. Client Project No.:
5. P.O. No.:
6. Custody Seal No.:
7. Sampled By: Daniel Smith
8. Shipping Method:

Water Sample Codes (for Item 13)	Container Codes (for Item 16)
DW = Drinking Water	V = VOA vial
GW = Ground Water	G = glass
SW = Surface Water	P = plastic
PW = Processed Water	M = micro bag/cup
WW = Waste Water	O = other

18. Report Type:
- Routine
- Standard QC
- Data Package

19. Turnaround Time
- Standard
- Rush : __/__/__

Preservative Codes (for Item 15)
C = Cool Only
H = Hydrochloric Acid
M = Monochloroacetic Acid
N = Nitric Acid
OH = Sodium Hydroxide
S = Sulfuric Acid
T = Sodium Thiosulfate

14. 15. Preservatives 16. Containers 17.

Item	9. Sample ID or No.	10. Sample Description	11. Date	Time	12. Comp.	Grab	13. Water (Codes)	Air	Soil	Sludge	Other	NH3	TKN	NOx	TP	COD	CBOD5	TSS	PO4	20. REMARK	LAB USE ONLY LAB SAMPLE NO.
1	15	baffle box	3-25-09			x	SW														
2	(See attached Pace Cost Proposal)																				
3	5	bottles																			
4																					
5	TIME = 930																				
6																					
7																					
8																					
9																					
10																					

21. RELINQUISHED BY	DATE	TIME	22. RECEIVED BY	DATE	TIME
1 D Smith	3/26/09	846	[illegible]	32609	0846
2			[illegible]	3273	1215
3					
4					

FOR LAB USE ONLY
Sampling Fee: _____ Hrs.
Equipment Rental Fee: _____
Profile No.:
Quote No.:

DISTRIBUTION: White with report; Blue, Green, Yellow to labs; Gold to submitter

Revised: 06/05

Pace Analytical Services
8 East Tower Circle
Ormond Beach, FL 32174
386-672-5668 ● FAX 386-673-4001
(INSTRUCTIONS ON BACK OF THIS FORM)

CHAIN OF CUSTODY RECORD

No. E

Page ____ of ____

FOR LAB USE ONLY
Temp. of Contents: 1.9 °C (or Received on Ice, ROI) 3-7
Condition of Contents: _____
Condition of Seals: _____

FOR LAB USE ONLY
Submission No. F0903 1034

1. Client: (Company or Individual)
GPI Southeast
Address: 13097 N Telecom Parkway
Phone: (813 632 7690
City: Tampa State: FL Zip Code: 33637
Fax: ( )

2. Report to: (if different from above)
Daniel Smith
dpsmith_aet@verizon.net
Address: **10809 Cedar Cove Drive**
Phone: **(813 864 5735**
City: **Tampa** State: **FL** Zip Code: **33592**
Fax: ( )

18. Report Type:
- Routine
- Standard QC
- Data Package

19. Turnaround Time
- Standard
- **Rush :__/__/__**

3. Client Project Name:
Baffle Box Research Project PARKWAY
4. Client Project No.:
5. P.O. No.:
6. Custody Seal No.:
7. Sampled By: Daniel Smith
8. Shipping Method:

Water Sample Codes (for Item 13)	Container Codes (for Item 16)
DW = Drinking Water	**V** = VOA vial
GW = Ground Water	**G** = glass
SW = Surface Water	**P** = plastic
PW = Processed Water	**M** = micro bag/cup
WW = Waste Water	**O** = other

14.
15. Preservatives
16. Containers
17. NH3 / TKN / NOx / TP / COD / CBOD5 / TSS / PO4 / _____

Preservative Codes (for Item 15)
- **C** = Cool Only
- **H** = Hydrochloric Acid
- **M** = Monochloroacetic Acid
- **N** = Nitric Acid
- **OH** = Sodium Hydroxide
- **S** = Sulfuric Acid
- **T** = Sodium Thiosulfate

Item	9. Sample ID or No.	10. Sample Description	11. Date	11. Time	12. Comp.	12. Grab	13. Water (Codes)	13. Air	13. Soil	13. Sludge	13. Other	14.	15.	16.	17.	17.	17.	17.	17.	17.	17.	20. REMARK	LAB SAMPLE NO.
1	17	baffle box	3-25-09			x	SW																
2	(See attached Pace Cost Proposal)																						
3	5 bottles																						
4																							
5	TIME = 10.00 AM																						
6																							
7																							
8																							
9																							
10																							

21. RELINQUISHED BY	DATE	TIME	22. RECEIVED BY	DATE	TIME
1 D Smith	3/26/09	846	1 [illegible]	3-26-9	0846
2			2 [illegible]	3-27-9	1715
3					
4					

FOR LAB USE ONLY
Sampling Fee: _____ Hrs.
Equipment Rental Fee: _____
Profile No.:
Quote No.:

DISTRIBUTION: White with report; Blue, Green, Yellow to labs; Gold to submitter

Revised: 06/05

Pace Analytical Services
8 East Tower Circle
Ormond Beach, FL 32174
386-672-5668 ● FAX 386-673-4001
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CHAIN OF CUSTODY RECORD

No. E

Page ____ of ____

FOR LAB USE ONLY
Temp. of Contents: 18.37 °C (or Received on Ice, ROI)
Condition of Contents: _____
Condition of Seals: _____

FOR LAB USE ONLY
Submission No. F0903 1034

1. Client: (Company or Individual)
GPI Southeast
Address: 13097 N Telecom Parkway
City: Tampa State: FL Zip Code: 33637
Phone: (813 632 7690
Fax: ( )

2. Report to: (if different from above)
Daniel Smith
dpsmith_aet@verizon.net
Address: **10809 Cedar Cove Drive**
City: **Tampa** State: **FL** Zip Code: **33592**
Phone: **(813 864 5735**
Fax: ( )

18. Report Type:
- Routine
- Standard QC
- Data Package

19. Turnaround Time
- Standard
- **Rush :__/__/__**

3. Client Project Name:
Baffle Box Research Project ROCKLEDGE
4. Client Project No.:
5. P.O. No.:
6. Custody Seal No.:
7. Sampled By: Daniel Smith
8. Shipping Method:

Water Sample Codes (for Item 13)	Container Codes (for Item 16)
DW = Drinking Water	**V** = VOA vial
GW = Ground Water	**G** = glass
SW = Surface Water	**P** = plastic
PW = Processed Water	**M** = micro bag/cup
WW = Waste Water	**O** = other

14.
15. Preservatives
16. Containers
17. NH3 / TKN / NOx / TP / COD / CBOD5 / TSS / PO4 / _____

Preservative Codes (for Item 15)
C = Cool Only
H = Hydrochloric Acid
M = Monochloroacetic Acid
N = Nitric Acid
OH = Sodium Hydroxide
S = Sulfuric Acid
T = Sodium Thiosulfate

Item	9. Sample ID or No.	10. Sample Description	11. Date	11. Time	12. Comp.	12. Grab	13. Water (Codes)	13. Air	13. Soil	13. Sludge	13. Other	14.	15.	16.	17.	17.	17.	17.	17.	17.	17.	20. REMARK	LAB USE ONLY LAB SAMPLE NO.
1	26	baffle box	3/25	1300		x	SW																
2	(See attached Pace Cost Proposal)																						
3	5 bottles																						
4																							
5	Collected 1 PM																						
6																							
7																							
8																							
9																							
10																							

	21. RELINQUISHED BY	DATE	TIME	22. RECEIVED BY	DATE	TIME
1	D Smith	3/26/09	849	[illegible]	3-26-09	0846
2				[illegible]	3-27-9	1215
3						
4						

FOR LAB USE ONLY
Sampling Fee: _____ Hrs.
Equipment Rental Fee: _____
Profile No.:
Quote No.:

DISTRIBUTION: White with report; Blue, Green, Yellow to labs; Gold to submitter

Revised: 06/05

Pace Analytical Services
8 East Tower Circle
Ormond Beach, FL 32174
386-672-5668 ● FAX 386-673-4001
(INSTRUCTIONS ON BACK OF THIS FORM)

CHAIN OF CUSTODY RECORD

No. E

Page ____ of ____

FOR LAB USE ONLY
Temp. of Contents: 1.8 °C (or Received on Ice, ROI) 3.7
Condition of Contents: _____
Condition of Seals: _____

FOR LAB USE ONLY
Submission No. F0903 1034

1. Client: (Company or Individual)
GPI Southeast
Address: 13097 N Telecom Parkway
Phone: (813 632 7690
City: Tampa State: FL Zip Code: 33637
Fax: ( )

2. Report to: (if different from above)
Daniel Smith
dpsmith_aet@verizon.net
Address: **10809 Cedar Cove Drive**
Phone: **(813 864 5735**
City: **Tampa** State: **FL** Zip Code: **33592**
Fax: ( )

18. Report Type:
- Routine
- Standard QC
- Data Package

19. Turnaround Time
- Standard
- **Rush :__/__/__**

3. Client Project Name:
Baffle Box Research Project SARASOTA
4. Client Project No.:
5. P.O. No.:
6. Custody Seal No.:
7. Sampled By: Daniel Smith
8. Shipping Method:

Water Sample Codes (for Item 13)	Container Codes (for Item 16)
DW = Drinking Water	**V** = VOA vial
GW = Ground Water	**G** = glass
SW = Surface Water	**P** = plastic
PW = Processed Water	**M** = micro bag/cup
WW = Waste Water	**O** = other

14.
15. Preservatives
16. Containers
17. NH3 / TKN / NOx / TP / COD / CBOD5 / TSS / PO4 / _____

Preservative Codes (for Item 15)
C = Cool Only
H = Hydrochloric Acid
M = Monochloroacetic Acid
N = Nitric Acid
OH = Sodium Hydroxide
S = Sulfuric Acid
T = Sodium Thiosulfate

Item	9. Sample ID or No.	10. Sample Description	11. Date	11. Time	12. Comp.	12. Grab	13. Water (Codes)	13. Air	13. Soil	13. Sludge	13. Other	14.	15.	16.	17.	17.	17.	17.	17.	17.	17.	20. REMARK	LAB SAMPLE NO.
1	74	baffle box	3/25			x	SW																
2	(See attached Pace Cost Proposal)																						
3	5 bottles																						
4																							
5	Collected 1700 hours																						
6																							
7																							
8																							
9																							
10																							

21. RELINQUISHED BY	DATE	TIME	22. RECEIVED BY	DATE	TIME
1 Dsmith	3/26/09	8 46	[illegible]	3-26-09	0846
2			[illegible]	3-27-9	1215
3					
4					

FOR LAB USE ONLY
Sampling Fee: _____ Hrs.
Equipment Rental Fee: _____
Profile No.:
Quote No.:

DISTRIBUTION: White with report; Blue, Green, Yellow to labs; Gold to submitter

Revised: 06/05

Columbia Analytical Services™ 9143 Philips Hwy, Suite 200 | Jacksonville, FL 32256 | 904.739.2277 | 904.739.2011 fax | www.caslab.com

October 30, 2009

Service Request No: J0904985

Daniel Smith
Applied Environmental Technology
10809 Cedar Cove Drive
Tampa, FL 33592-2250

Laboratory Results for: Baffle Box Research

Dear Daniel:

Enclosed are the results of the sample(s) submitted to our laboratory on October 8, 2009. For your reference, these analyses have been assigned our service request number **J0904985**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 4408. You may also contact me via email at TKissinger@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Tom Kissinger

Tom Kissinger
Project Manager

CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502. Other state accreditations include: Georgia, #958; Kentucky, #63; Louisiana, #02086; North Carolina, #527; South Carolina, #96021001; Texas, #T104704197-09-TX.

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Applied Environmental Technology	**Service Request No.:**	J0904985
Project:	Baffle Box Research	**Date Received:**	10/8/09
Sample Matrix:	solid		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

Sample Receipt

3 solid samples were received for analysis at Columbia Analytical Services on 10/8/09. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 4±2°C upon receipt at the lab.

General Chemistry Parameters

Samples were composited and ground using a SPEX 6850 freezer Mill prior to sample analysis.

Matrix Spike Recovery Exceptions

The control criterion for matrix spike recovery of Total Phosphorus for sample 1 is not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

Approved by Tom D. Kissing **Date** 10/30/09

Florida DEP Data Qualifiers

B Results based upon colony counts outside the acceptable range.

D Measurement was made in the field.

H Value based on field kit determination; results may not be accurate.

i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J Estimated value (one of the following reasons is discussed in the project case narrative).
1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
2. No known quality control criteria exists for the component.
3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).

K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).

L Off scale high. The analyte is above the upper limit of the linear calibration range.

M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.

N Presumptive evidence of the analyte. Confirmation was not performed.

Q Sample held beyond the accepted holding time.

T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.

U Indicates that the compound was analyzed for but not detected.

V Indicates that the analyte was detected in both the sample and the associated method blank.

Y The laboratory analysis was from an improperly preserved sample.

Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: Applied Environmental Technology
Project: Baffle Box Research

Service Request: J0904985

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
J0904985-001	1	10/5/09	00:00
J0904985-002	2	10/5/09	00:00
J0904985-003	3	10/5/09	00:00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GPI Southeast
Project Name : Baffle Box Research
Project Number : NA
Sample Matrix : SOLID

Service Request : J0904985
Date Collected : 10/05/09
Date Received : 10/08/09

Nitrogen, Total Kjeldahl (TKN)

Units : mg/Kg (ppm)
Basis : Dry

Analysis Method : 351.2
Test Notes :

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
1	J0904985-001	83	16	2	10/28/09 14:09	12000	
2	J0904985-002	93	18	2	10/28/09 14:09	9300	
3	J0904985-003	109	21	2	10/28/09 14:09	14000	
Method Blank	J0904985-MB	13	2.4	1	10/28/09 14:09	U	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GPI Southeast
Project Name : Baffle Box Research
Project Number : NA
Sample Matrix : SOLID

Service Request : J0904985
Date Collected : 10/05/09
Date Received : 10/08/09

Phosphorus, Total

Units : mg/Kg (ppm)
Basis : Dry

Analysis Method : 365.1
Test Notes :

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
1	J0904985-001	42	17	100	10/26/09 13:59	860	
2	J0904985-002	46	19	100	10/26/09 13:59	800	
3	J0904985-003	54	22	100	10/26/09 13:59	1300	
Method Blank	J0904985-MB	0.13	0.05	1	10/26/09 13:59	U	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GPI Southeast
Project Name : Baffle Box Research
Project Number : NA
Sample Matrix : SOLID

Service Request : J0904985
Date Collected : 10/05/09
Date Received : 10/08/09

Solids, Total

Analysis Method : 160.3 MOD
Test Notes :

Units : PERCENT
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
1	J0904985-001	0.1	0.1	1	10/12/09 11:30	30	
2	J0904985-002	0.1	0.1	1	10/12/09 11:30	27	
3	J0904985-003	0.1	0.1	1	10/12/09 11:30	23	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GPI Southeast
Project Name : Baffle Box Research
Project Number : NA
Sample Matrix : SOLID

Service Request : J0904985
Date Collected : 10/05/09
Date Received : 10/08/09
Date Extracted : 10/28/09
Date Analyzed : 10/26-28/09

Duplicate Summary
Inorganic Parameters

Sample Name : 1
Lab Code : J0904985-001DUP
Test Notes :

Basis : Dry

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Nitrogen, Total Kjeldahl (TKN)	mg/Kg (ppm)	351.2	83	12000	12000	12000	<1	
Phosphorus, Total	mg/Kg (ppm)	365.1	42	860	850	855	1	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GPI Southeast
Project Name : Baffle Box Research
Project Number : NA
Sample Matrix : SOLID

Service Request : J0904985
Date Collected : 10/05/09
Date Received : 10/08/09
Date Extracted : 10/28/09
Date Analyzed : 10/26-28/09

Matrix Spike Summary
Inorganic Parameters

Sample Name : 1
Lab Code : J0904985-001MS
Test Notes :

Basis : Dry

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Nitrogen, Total Kjeldahl (TKN)	mg/Kg (ppm)	351.2	83	4350	12000	16000	92	90-110	
Phosphorus, Total	mg/Kg (ppm)	365.1	42	41	860	870	NC	90-110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	GPI Southeast	**Service Request :**	J0904985
Project Name :	Baffle Box Research	**Date Collected :**	NA
Project Number :	NA	**Date Received :**	NA
Sample Matrix :	SOLID	**Date Extracted :**	10/28/09
		Date Analyzed :	10/26-28/09

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : J0904985-LCS
Test Notes :

Basis : Dry

Analyte	Units	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Nitrogen, Total Kjeldahl (TKN)	mg/Kg (ppm)	351.2	125	125	100	90-110	
Phosphorus, Total	mg/Kg (ppm)	365.1	12.5	12.3	98	90-110	

Report By: Palimi

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: GPI Service Request # J0904985

Project: Baffle Box Research

Cooler received on 10/8/09 and opened on 10/8/09 by SC

COURIER: CAS UPS FEDEX DHL CLIENT Tracking # 9960 0830 0483

1	Were custody seals on outside of cooler?	Yes	No	N/A
2	Were seals intact, signed and dated?	Yes	No	N/A
3	Were custody papers properly filled out?	Yes	No	N/A
4	Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C) Room Temp			
5	Correct Temperature?	Yes	No	N/A
6	Were Ice or Ice Packs present	Yes	No	N/A
7	Did all bottles arrive in good condition (unbroken, etc....)?	Yes	No	N/A
8	Were all bottle labels complete (sample ID, preservation, etc....)?	Yes	No	N/A
9	Did all bottle labels and tags agree with custody papers?	Yes	No	N/A
10	Were the correct bottles used for the tests indicated?	Yes	No	N/A
11	Were all of the preserved bottles received with the appropriate preservative?	Yes	No	N/A

HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2

Preservative additions noted below

12	Were all samples received within analysis holding times?	Yes	No	N/A
13	Were VOA vials checked for absence of air bubbles? If present, note below	Yes	No	N/A
14	Where did the bottles originate?	CAS	Client	

Sample ID	Reagent	Manuf. Lot # or CAS Chem ID	ml added	Inititials

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted: Date:

SR # : J0904985 Date: 10/8/09 Initials: SJD

Note that pH is checked and meets the required pH criterion listed in the column heading unless otherwise noted on cooler receipt form.

	Bottle Code																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	40mL	40mL	40mL	40mL	125mL	125mL	125mL	125mL	250mL	250mL	250mL	250mL	250mL	250mL	250mL	500mL	500mL	500mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	5g	100mL	Misc.
Container	G	G	G	G	P	P	P	P	P	P	P	P	P	G	G	P	P	P	P	P	G	G	G	G	G	G	G	ENC	P	Misc.
Pres.		HCl	Sodium Thiosulfate	H2SO4		HCl	H2SO4	HNO3		H2SO4	HNO3	ZnAcetate NaOH	NaOH		HNO3		H2SO4	HNO3		HNO3		HCl	H2SO4					Sodium Thiosulfate	
Req. pH	N/A	<2	N/A	<2	N/A	<2	<2	<2	N/A	<2	<2	>9	>12	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-		-	-	-				-	-
-001																														1
-002																														1
-003																														1
-004																														
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-031																														
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-033																														
-034																														
-035																														
-036																														
-037																														
-038																														
-039																														
-040																														

ziplock

Columbia Analytical Services INC
An Employee Owned Company
www.caslab.com

CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 / Phone (904) 739-2277 / 800-695-7222 x06 / FAX (904) 739-2011

SR # J0904985
CAS Contact

Page 1 of

Project Name: Baffle Box Research	Project Number:
Report To: **Daniel Smith dpsmith_aet@verizon.net 813 864 5735**	Report CC:
Company/Address: GPI Southeast inc. 13097 N Telecom Parkway Tampa FL 33637	
Phone #: 813 632 7690	FAX #:
Sampler's Signature: Daniel P. Smith	Sampler's Printed Name: Daniel Smith

ANALYSIS REQUESTED (Include Method Num[redacted]y

Preservative: 1. HCL; 2. HNO3; 3. H2SO4; 4. NaOH; 5. Zn. Acetate; 6. MeOH; 7. NaHSO4

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	Matrix	NUMBER OF CONTAINERS		Total solids	TKN	Total Phosphorus	Compositing	Grinding	REMARKS
1		10 5 2009		SCM	1		X	X	X	X	X	
2		10 5 2009		SCM	1		X	X	X	X	X	
3		10 5 2009		SCM	1		X	X	X	X	X	
	SCM = Stormwater cleanout material											
See attached Columbia quote for analyses												

Special Instructions/Comments: Bill to Gordon Englands credit card. Visa #4264 2900 9613 1156 Exp 1/12 #509
Gordon England
760 S. Brevard Ave #421
Cocoa Beach Fl 32931 321-783-8283

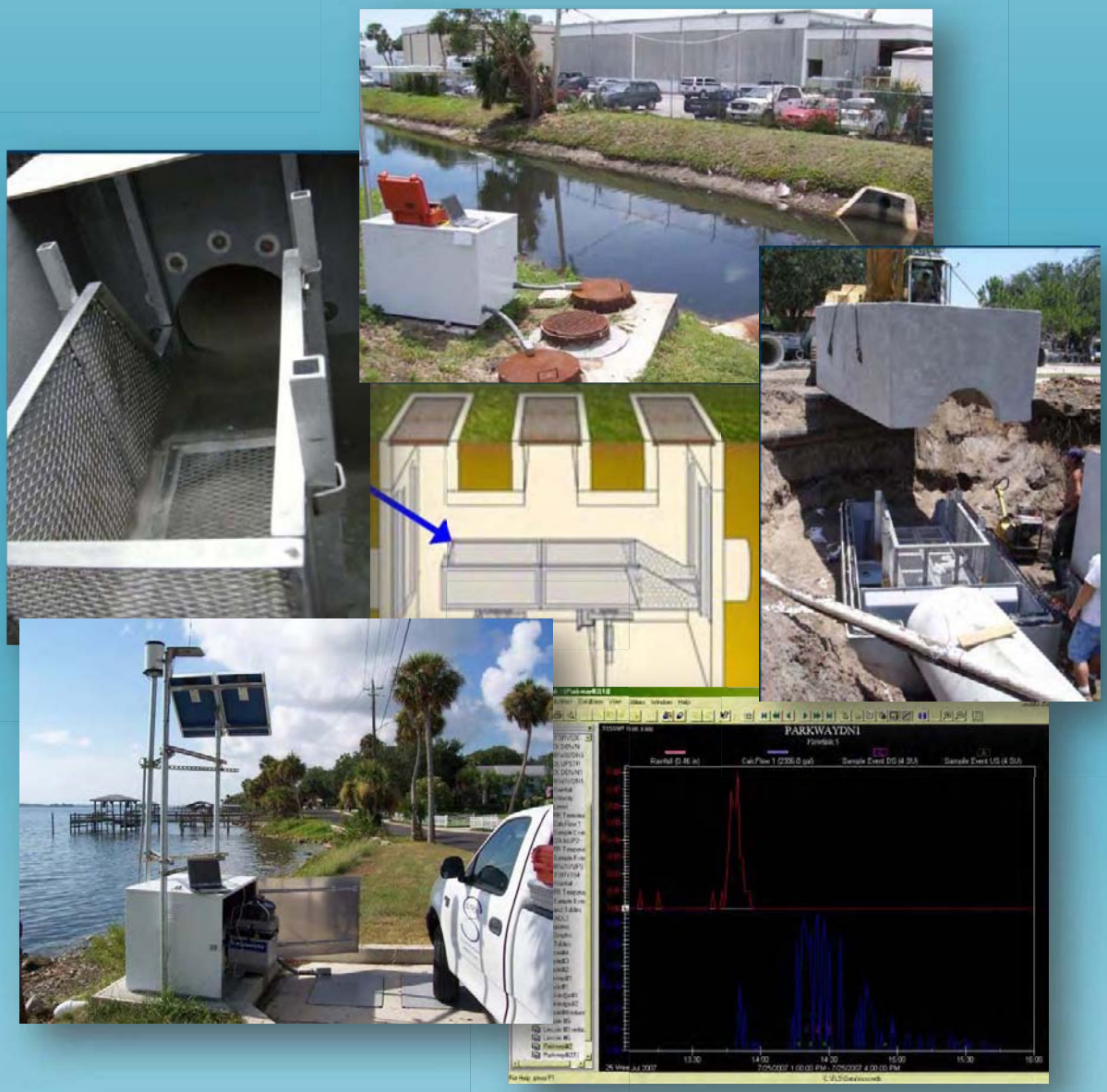
TURNAROUND REQUIREMENTS
- RUSH (SURCHARGES APPLY)
- STANDARD
- REQUESTED FAX DATE
- REQUESTED REPORT DATE

REPORT REQUIREMENTS
- I. Results Only
- II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
- III. Results + QC and Calibration Summaries
- IV. Data Validation Report with Raw Data
- Edata ___ Yes ___ No

INVOICE INFORMATION
- P.O. #
- Bill to:

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature: [signature]	Signature	Signature	Signature [signature]	Signature	Signature
Printed Name: Gordon England	Printed Name	Printed Name	Printed Name Bauer	Printed Name	Printed Name
Firm: Stormwater Solutions	Firm: FedEx	Firm: FedEx	Firm: CAS	Firm	Firm
Date/Time: 10-6-09 1100AM	Date/Time	Date/Time	Date/Time: 10-8-09 0955	Date/Time	Date/Time

Appendix C



Baffle Box Testing Program

Quality Assurance Project Plan

Prepared for:
Sarasota County BOCC
Contract No. 2005-432
Specific Authorization No. 06-01

Florida Dept. of Environmental Protection
DEP Agreement No. S0236

Prepared by:

Sutron Corporation
6903 Vista Parkway North
Suite 5
West Palm Beach, FL 33411

PBS&J
3230 Commerce Place
Suite A
West Palm Beach, FL 33407

Berryman & Henigar
1412 Tech Boulevard
Tampa, Florida 33619

Prepared and Approved by:

Gordon England, P.E., Project Manager, Berryman & Henigar	Date
Daniel Smith, P.E., Project Scientist, Berryman & Henigar	Date
Siaka Kone, PhD, Supervisory Engineer, Sutron Corporation	Date
Lisa Herlihy, Sutron QA Officer, Sutron Corporation	Date
Jeffrey Herr, P.E., Project Manager/QA Officer, PBS&J	Date

Section 2.0 Table of Contents

QUALITY ASSURANCE ELEMENTS

Section ..... Page ..... Rev. Date

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

Section 3 **Distribution List**

Name	Organization	Title	Phone No.
Gordon England	Berryman & Henigar	Project Manager	813-623-2230
Daniel P. Smith	Berryman & Henigar	Project Scientist	813-758-4758
Siaka Kone	Sutron Corp.	Supervisory Engineer	561-697-8151
Forrest Jay	Sutron Corp.	Staff Engineer	561-697-8151
Lisa Herlihy	Sutron Corp.	Project QA Officer	561-697-8151
Joe Stolo	Sutron Corp.	Sr. Field Technician	561-697-8151
Cindy Cromer	Harbor Branch Env. Lab	President	772-465-2400
Eric Charest	Harbor Branch Env. Lab	QA Manager	772-465-2400
Brian Hathaway	MACTEC	Project Manager	561-242-7713
Jeffrey L. Herr	PBS&J	Project Manager	561-689-7275
Tara Bardi	Jupiter Environmental Lab	Project Manager	561-575-0030
Tami Bright	Sanders Lab	Project Manager	941-488-8103

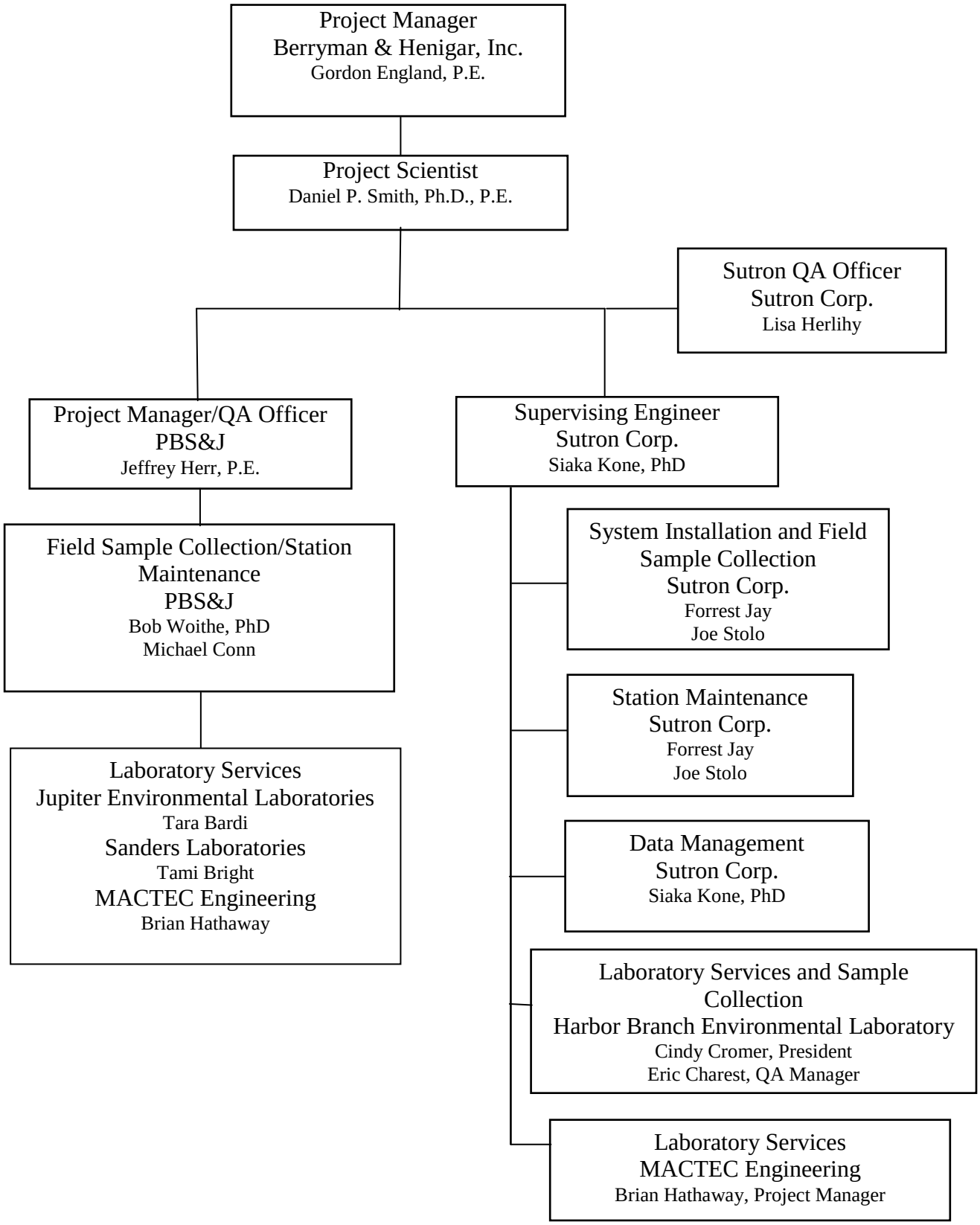
Section 4 **Project Organization**

Berryman & Henigar (B&H) has contracted with Sutron Corp. to set up baffle box and autosampler stations at the Rockledge and Stuart sites, to perform field sampling, to sub-contract with Harbor Branch Environmental Laboratories (HBEL), and MACTEC Engineering for sampling and laboratory services, and to review the resultant data and generate summary reports.

Sarasota County has contracted with PBS&J to set up baffle box and autosampler stations, to perform field sampling at the Sarasota site, to sub-contract with Harbor Branch Environmental Laboratories (HBEL), MACTEC Engineering, Sanders Laboratories (SL), and Jupiter Environmental Laboratories (JEL) for laboratory services, and to review the resultant data and generate summary reports.

B&H will retain overall project management responsibilities and will audit the field activities. The project QA officers will maintain the approved QAPP.

Figure 1 Project Organization



Section 5 **Problem Definition and Background**

A. Project Background

Florida Department of Environmental Protection (FDEP) has given Section 319(h) grant funding to several communities for the installation of baffle boxes to provide stormwater treatment for outfall pipes. As a condition of these grants, the communities are required to implement a monitoring and testing program to document the effectiveness of their baffle box installations with respect to pollutant removal. Historically, FDEP's monitoring requirements consisted of a sampling regime covering a nominal number of storm events to be tested, resulting in a monitoring program with inexpensive costs of the communities, but not providing adequate data to determine pollution reduction.

FDEP recognizes that monitoring only a few storm events for a BMP does not give statistically valid results and often leads to poor conclusions when there are small storm events and/or equipment problems. As a result, FDEP desires to undertake a more rigorous, long term monitoring program for four baffle box installations to provide a higher level of confidence in documentation of the pollutant removal effectiveness of baffle boxes.

Baffle boxes are devices typically in line with stormdrain pipes. They are divided into multiple chambers by baffles set near the flow line of the entrance pipe. Below the baffles are several feet of sediment accumulation storage. There are two models of baffle boxes in use: 1) the original designs with vertical screens ("Type 1") and 2) Nutrient Separating Baffle Boxes (NSBB) manufactured by Suntree Technologies ("Type 2"). The difference between the models is that the NSBB has a horizontal screen that traps, trash, debris, and herbaceous matter (leaves, grass, seeds) and keeps them in a dry state suspended above the water trapped in the box. The original design of the baffle boxes allowed the trash, debris, and herbaceous organic matter to fall into the water in the chambers, where nutrients could leach out into the chambers and be washed out with subsequent rain events. While it is intuitive that keeping organic matter out of the water in the chambers will prevent nutrients from leaching, no testing has been performed to date to quantify the nutrient removal effectiveness of the NSBB. Two Type 1 baffle boxes and one NSBB will be monitored by Sutron. One NSBB will be monitored by PBS&J.

B. Study Site Names and Addresses

1. Rockledge City

Site location is at the intersection of Little John Dr. and Rockledge Dr. A site map is provided as Figure 2 in Section 6.

2. Stuart City

One site location is at the intersection of SE Lincoln Ave. and Dixie Hwy., and one site location at the intersection of SE Parkway Dr. and SE 7th Street. Site maps are provided as Figures 3 and 4 in Section 6.

3. **Sarasota**

Site location is at the intersection of Oriole Dr. and McClellan Pkwy. A site map provided as Figure 5 in Section 6.

Section 6 **Project Description**

A. Project Purpose

To determine the effectiveness of baffle boxes in removing stormwater pollutants by measuring total and dissolved pollutants and using a mass balance approach.

B. Project Objectives

Pollutant removal effectiveness will be demonstrated by monitoring four representative baffle box installations at various locations in Florida. Sutron Corporation (Sutron) will perform the monitoring at three sites outside of Sarasota and PBS&J will monitor the site in Sarasota. Monitoring will take place over a period of up to two years. The parameters to be analyzed and matrices are presented in Table 2. Quarterly reports will be will be prepared by Sutron and PBS&J, and sent to B & H, Sarasota County and FDEP, along with preliminary stormwater monitoring results and photographs, and preliminary and final project reports.

The removal performance of each baffle box will be assessed through monitoring of:

1. stormwater constituents that are dissolved and suspended in the water column and that can be collected using an autosampler; and
2. "gross solids" and associated contaminants.

Removal of dissolved and suspended stormwater constituents will be measured by simultaneous autosampling of influent and effluent for 7 to 10 storm events over a period of up to two years. For each storm event, flow weighted pollutant concentration and pollutant mass will be quantified in baffle box influent and effluent.

This study will also evaluate the quantity of *gross solids* removed by baffle boxes and conduct physical and chemical analysis of gross solids material. *Gross solids* is a generic term used to describe components of stormwater that are generally not collected by autosamplers, and consists of four types of materials:

1. **Trash and debris**: litter, paper, plastic, metal, glass, cups, styrofoam, bags, branches, 2x4, etc. This material floats on the surface or is too large to enter autosampler strainers or tubing.
2. **Herbaceous material**: leaves, grass, and seeds generally > 850 um (20 mesh). These materials may float on the surface or be transported at different depths in the water column, but are generally too large to enter autosampler tubing. Breakdown can release smaller organic particles or dissolved components that can be taken up by autosamplers.
3. **Sediment**: inorganic breakdown products from solids, pavement and building materials that are greater than 200 mesh (75um), or a fine sand size. The sediment component of gross solids is transported through saltation or bedload, and may not be collected by autosamplers for two reasons. The first is that autosampler intake ports that are located above the bottom of stormwater conveyance feature (pipe or channel) will not intercept and capture bedload sediments. The second reason is that the settling velocity of larger and denser particles may be greater than the lift velocity within the sample tubing,

leading to selective exclusion of large particles. The sediment component of gross solids and the organic breakdown products of herbaceous materials are often intermingled and not readily distinguished or separable.

4. **Oil and grease**: This material floats on the surface.

The "gross solids" components of interest in this study are trash and debris, herbaceous material and sediments. Oil and grease are not expected to be present.

Gross solids removal will be assessed by measuring the volume and mass of material accumulated in the bottom chambers of each baffle box and on the screens of the two Nutrient Separating Baffle Boxes. Two times during the project, the bottom chambers of each baffle box will be sampled, volume-weighted composited, dried and analyzed, and the material in the chambers completely removed. Material collected on the screens at the two nutrient separating baffle boxes (Type 2) will be completely removed, quantified, composited, and analyzed two times during the project. The result will be a cumulative mass removal of "gross solids" and associated contaminants over the time period corresponding to the water column autosampler-based pollutant removals.

C. Project Tasks

Table 1 includes the project scheduled tasks. The start dates are contingent upon receipt of a signed contract from FDEP.

Task 1: Initiate Project and Data Collection

B&H has prepared a sub-consultant contract with Sutron Corporation for field testing of three (3) baffle boxes at various locations in Florida and Sarasota County has entered into an agreement with PBS&J for monitoring the Sarasota location. B&H will consult with FDEP representatives to determine the goals of the monitoring program and desired protocols to be used for monitoring.

Deliverables: Completed contract with Sutron Corporation and PBS&J.

Task 2: Select Four Monitoring Sites

B&H will canvass sites across Florida where First Generation and Second Generation Baffle Boxes have been installed. This search will include Baffle Boxes that have been built under the 319 program as well as those built outside of the 319 program. The sites will be investigated to determine their appropriateness for establishing a monitoring program at the sites. Criteria to be used in site selection include size and type of Baffle Box, configuration of Baffle Box (one pipe in and one pipe out is preferable), on-line vs. off-line, submersion of box from upstream or downstream tailwater, base flows, willingness of communities and residents to accept a monitoring program in their yards, and availability of monitoring contractors in the vicinity. Two First Generation Baffle Box sites and two Second Generation sites will be chosen for the

monitoring program. These sites will be visited to determine their suitability for the monitoring program, as well as to secure agreement and cooperation of local agencies.

Deliverables: Four sites for the Baffle Box Monitoring Program.

Task 3: Quality Assurance Project Plan

Sutron, in cooperation with B&H and PBS&J, has prepared a QAPP for testing four baffle boxes in accordance with the requirements set forth in Section 62-160.110(6). No monitoring shall be performed until the QAPP has been approved by FDEP.

Deliverable: QAPP approved by FDEP.

Task 4: Baffle Box Monitoring

B&H will use Sutron Corporation (Sutron) and Sarasota County will use PBS&J as qualified sub-contractors to perform monitoring of the 4 baffle box sites chosen in Task 2. Sutron and PBS&J will follow FDEP specified QAPP and QA/QC procedures for performing the monitoring efforts. Seven to ten storm events of 0.2 inch of rainfall or greater will be sampled over a period of up to 2 years. Sampling will end once 10 storm events have been captured meeting the 0.2 inch depth, unless extreme weather conditions prevent the sampling of 10 events; in which case at least 7 events will be sampled. Two times during the study period, material from the bottom chambers of each baffle box will be sampled, trash and debris removed, a composite sample will be produced by a volume weighted procedure, and analyses performed on the composite sample. For the two Nutrient Separating Baffle Boxes, the material trapped on the screens will be collected two times during the study period. One NSBB collection event shall occur after 4 to 5 storms depending on material accumulation, and a second at the end of the monitoring period. At least one event shall occur during or immediately after the “wet” season. For each NSBB collection event, volume and mass will be calculated, a composite sample will be produced, and analyses will be performed on two subfractions of the composite sample.

Deliverables: Complete and thorough monitoring of 4 baffle boxes by Sutron and PBS&J with sampling for 7-10 storm events at each site. Sampling will follow FDEP QAPP requirements.

Task 5: Monitoring Oversight

B&H will develop an appropriate monitoring program to be used at each of the four locations to ensure that FDEP monitoring goals will be accomplished. B&H will ensure that the monitoring sub-contractors will provide proper QAPP and QA/QC procedures, that proper instrumentation is installed, and that the prerequisite numbers of complete samples are obtained at each site. B&H will make one site visit to each location during the monitoring process.

Deliverables: A thorough and complete monitoring program will be obtained at each of four sites. Sutron and PBS&J will provide quarterly monitoring reports that will be reviewed by

B&H and sent to Sarasota County and FDEP, along with preliminary stormwater monitoring reports and photographs. Preliminary and final project reports will be delivered to Sarasota County and FDEP. Project updates will be provided to participating communities.

Task 6: Final Report

Preliminary and final reports from the monitoring contractors will be reviewed by B&H and revised as necessary. B&H will prepare a draft summary report compiling the results of the four monitoring programs. The draft report will give the results of the Baffle Box monitoring program and recommendations for removal efficiencies to be used by FDEP for the two types of Baffle Boxes. It will also summarize other findings and recommendations from the individual sites. The draft report will be submitted to FDEP for review. Upon receipt of FDEP review comments, B&H will make revisions to the draft report and prepare the final report. Copies of the final report will be sent to FDEP.

Deliverables: B&H will provide three paper copies and one CD of the draft report to FDEP for review. Upon receipt of FDEP review comments, B&H will provide five paper copies and one CD of the final report to FDEP, and one paper copy of the final report to each of the participating communities.

Task 7: Project Management

Prudent project management will help minimize changes, ensure project continuity, and avoid delays in the project schedule. This type of project is highly specialized, requiring unusual equipment and services. Therefore it is crucial that adequate project management be used to ensure the success of the project. B&H will provide a high level of oversight and project coordination to facilitate a smooth flowing project.

Deliverable: B&H will provide monthly reports and invoices to Sarasota County.

Table 1 Scheduled Tasks

Task/Activity	Start Date	Projected Completion Date
Task 1: Initiate Project and Contract Sub-consultants	Month 1	Month 1
Task 2: Select Monitoring Sites	Month 1	Month 2
Task 3: Prepare Quality Assurance Project Plan and Submit to FDEP	Month 1	Month 3
Task 4: Baffle Box Monitoring	Month 3	Month 27
Task 5: Monitoring Oversight	Month 3	Month 27
Task 6: Prepare Final Report	Month 27	Month 29
Task 7: Project Oversight	Month 1	Month 29

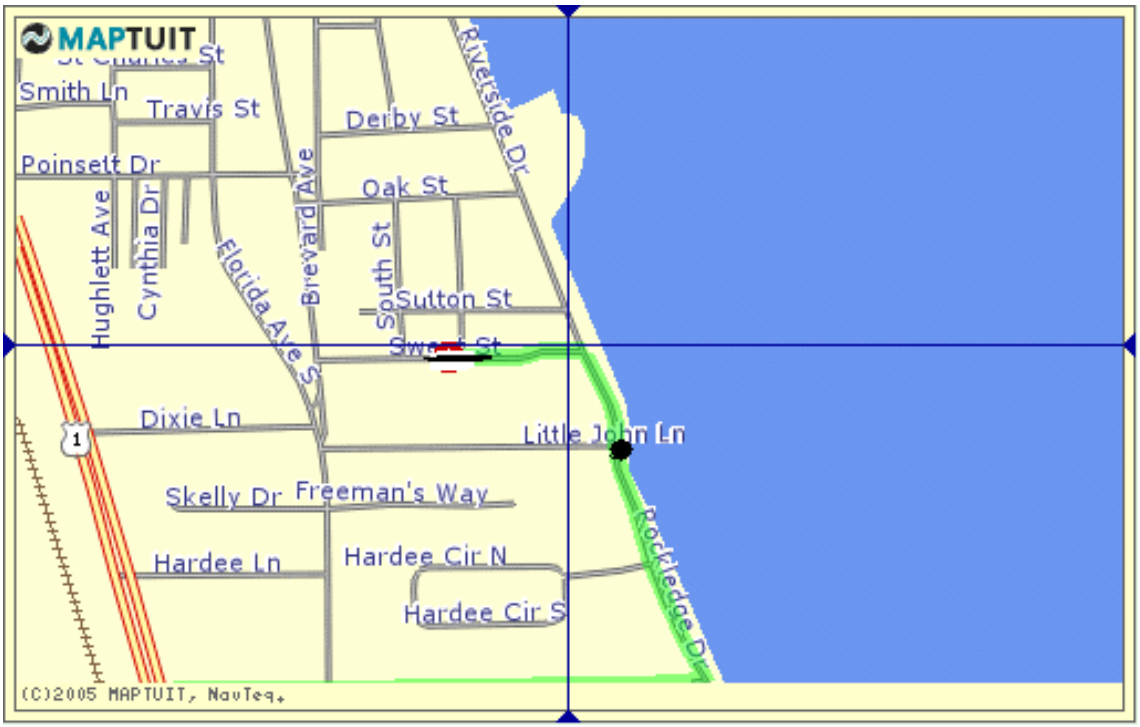
Table 2 Parameters of Interest by Matrix

Aqueous Samples	Sediment and Herbaceous Matter Collected in Baffle Box Chambers	Sediment Gathered from Nutrient Separating Screens	Herbaceous Matter /Solids Gathered from Nutrient Separating Screens
Total Cadmium	Sample separation and preparation per description in Section 10	Sample separation and preparation per description in Section 10	Sample separation and preparation per description in Section 10
Total Chromium	Sieve Analysis (5 screens)	Sieve Analysis (5 screens)	Sieve Analysis (5 screens)
Total Copper	Percent Organic Matter	Percent Organic Matter	Percent Organic Matter
Total Zinc	Density	Density	Density
Nitrate + Nitrite	Total Nitrogen	Total Nitrogen	Total Nitrogen
Total Kjeldahl Nitrogen	Chemical Oxygen Demand	Chemical Oxygen Demand	Chemical Oxygen Demand
Total Ammonia	Total Phosphorus	Total Phosphorus	Total Phosphorus
Total Phosphorus	Mercury	Mercury	Mercury
Orthophosphate	Aluminum	Aluminum	Aluminum
Total Suspended Solids	Barium	Barium	Barium
Fecal Coliform	Chromium	Chromium	Chromium
	Cadmium	Cadmium	Cadmium
	Iron	Iron	Iron
	Nickel	Nickel	Nickel
	Zinc	Zinc	Zinc
	Copper	Copper	Copper
	Acenaphthylene	Acenaphthylene	Acenaphthylene
	Benzo(a)pyrene	Benzo(a)pyrene	Benzo(a)pyrene
	Benzo(g,h,i)perylene	Benzo(g,h,i)perylene	Benzo(g,h,i)perylene
	Fluoranthene	Fluoranthene	Fluoranthene
	Fluorene	Fluorene	Fluorene
	1-Methylnaphthalene	1-Methylnaphthalene	1-Methylnaphthalene
	Naphthalene	Naphthalene	Naphthalene
	Pyrene	Pyrene	Pyrene

D. Site Locations

1. Rockledge City

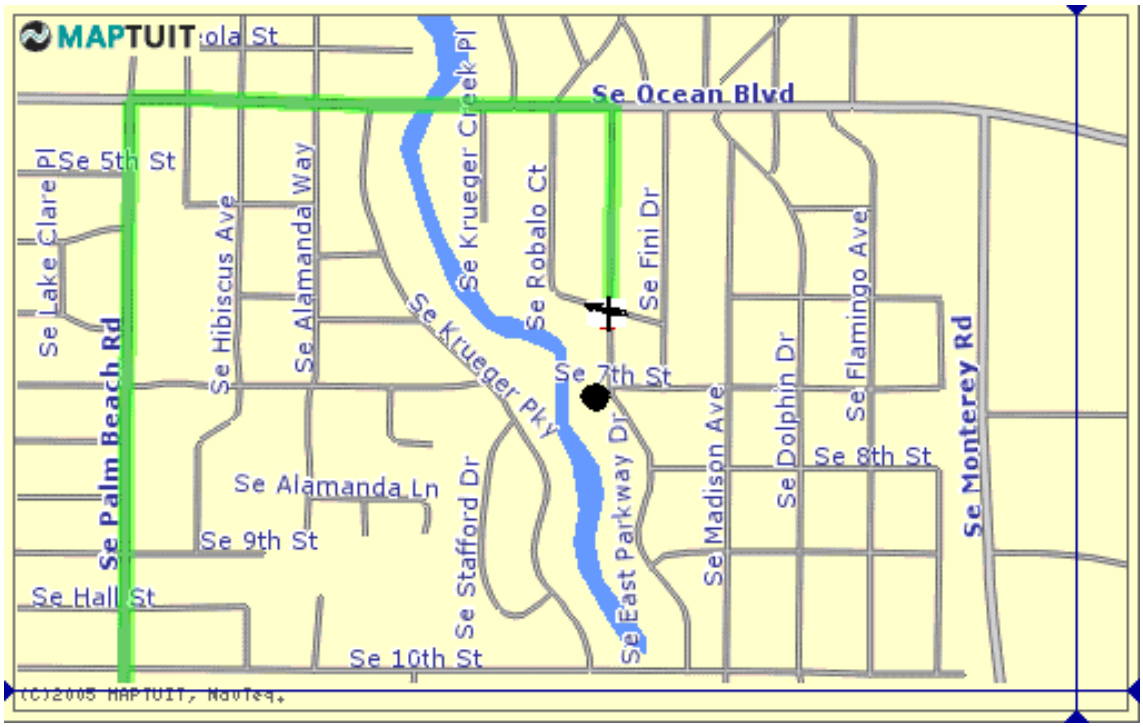
Figure 2 The Nutrient Separating Baffle Box Location at the Intersection of Little John Dr. and Rockledge Dr., Rockledge City



2. Stuart

Figure 3 Baffle Box Location at SE Lincoln Ave. and Dixie Hwy., Stuart

Figure 4 Baffle Box Location at the Intersection of the SE Parkway Dr. and SE 7th Street, Stuart



3. Sarasota

Figure 5 Baffle Box location at the intersection of Oriole Dr. and McClellan Pkwy, Sarasota

Section 7 **Quality Objectives and Criteria**

The objective of this monitoring program is to determine the effectiveness of baffle boxes in removing stormwater pollutants. These data will become part of FDEP's BMP toolbox, with removal efficiencies to be used by communities in their TMDL compliance programs.

This project will evaluate performance of two Type 1 baffle boxes (no horizontal screens) and two Nutrient Separating Baffle Boxes (Type 2). The following will be performed:

- For each baffle box, flow monitoring and autosampler compositing of influent and effluent samples will be carried out during 7 to 10 storm events.
- For each baffle box, the bottom chambers will be initially cleaned at the start of the project. The volume of material accumulated in each chamber will be monitored after each of the 7 to 10 storm events.
- Two times during the project, the material in the bottom of each chamber of each baffle box will be completely removed. A series of sorting, drying, compositing, separating, and analytical procedures will be performed on a volume-weighted composited sample to determine mass, volume, density, particle size, and chemical constituents.
- For the two Nutrient Separating Baffle Boxes, the upper screens will be initially cleaned at the start of the project. The volume of material accumulated on each screens will be monitored after each of the 7 to 10 storm events by measuring the depth of accumulated material and using these measurements to calculate the volume of the material accumulated on the Nutrient Separating Baffle Box screens.
- The material trapped on the screens of the two Nutrient Separating Baffle Boxes will be completely removed two times during the project. A series of sorting, drying, compositing, separating, and analytical procedures will be performed to determine mass, volume, density, particle size, and chemical constituents for two subfractions of a composited sample.
- Additional floating material that collects behind skimmers will be removed during bottom chamber or screen cleanouts and quantified.

The monitoring data will be used to calculate:

1. total masses, event average concentrations, and event mass removal efficiencies of non-gross solids constituents (dissolved, colloidal, and suspended) entering and leaving the boxes for each of 7 to 10 storm events;
2. the total mass of gross solids and associated pollutants retained in the bottom chambers over the time period corresponding to the 7 to 10 storm events; and
3. for NSBB, the total mass of gross solids and associated pollutants retained on the screens over the time period corresponding to the 7 to 10 storm events.

A. Precision and Accuracy

Precision describes the reproducibility of results and will be determined through the collection of field and laboratory duplicate samples and/or duplicate spiked samples. Accuracy is the degree of agreement between an observed value and an accepted reference value. Accuracy will be evaluated through the analysis of surrogate spikes, Laboratory Control Samples (LCS),

Laboratory Control Sample Duplicates (LCSD), matrix spike samples (MS/MSD) and laboratory internal blind audit samples. Precision and accuracy information is tracked by the laboratory, with acceptable ranges updated periodically. In addition, NELAC requirements include the analysis of proficiency test samples to evaluate precision and accuracy.

Precision and accuracy requirements for the target analytes and matrices are provided in Tables 7, 8 and 9.

B. Representativeness

Representativeness refers to the relationship of a sample taken from a site to be analyzed to the remainder of the sample matrix at the site. The use of FDEP approved procedures for collection, compositing and preservation of samples shall achieve representativeness.

C. Comparability

The use of FDEP approved procedures and consistent approved methodologies ensure the comparability of data sets generated by different laboratories.

D. Completeness

Completeness is defined as a measure of the extent to which the data fulfill the data quality objectives of the project. The completeness of the data will be determined during the data validation and verification process.

Section 8 **Special Training/Certifications**

Harbor Branch Environmental laboratory (HBEL), located in Ft. Pierce, FL, is FDOH NELAP certified laboratory # E96080. HBEL's certification documentation is provided as **Appendix A**.

MACTEC Engineering in Jacksonville, FL. MACTEC is an FDEP approved materials testing laboratory.

Jupiter Environmental Laboratories, Inc. (JEL), located in Jupiter, FL., is FDOH NELAP certified laboratory # E86546. JEL's certification documentation is provided in **Appendix B**.

Sanders Laboratories, Inc. (SL), located in Nokomis, FL., is FDOH NELAP certified laboratory # E84380. SL's certification documentation is provided in **Appendix C**.

Section 9 **Documentation and Records**

Documentation procedures outlined in DEP-QA-001/01, and FD 1000 will be followed. In accordance with FDEP Rule, 62-160.240 & .340, F.A.C., all documentation archives will be kept for a minimum of 5 years after the date of project completion. Reports and deliverables will be submitted in Excel '97 or Access 2000 format.

A. Field Procedure Documentation and Reporting

The following field related information will be reported to the FDEP project manager:

- Site and/or stormwater BMP name
- Field ID for each sample container and the associated analytes (test methods) for which the container was collected
- Date and time of sample collection
- Sample collection depth, if applicable
- Sample collection method identified by SOP number
- Indication of samples that were filtered
- Field test measurement results, if applicable:
  - FDEP SOP number
  - Parameter name
  - Result
  - Result unit
  - Applicable data qualifiers per Table 1 of Chapter 62-160, F.A.C.
- Narrative comments discussing corrective/preventive actions taken for any failed QC measure (e.g., blank contamination, meter calibration failure, split sample results, etc.), unacceptable field measurement or other problems related to the sampling event.

1. Field Logs

Field notes are documented using a permanent marker by field staff in a bound waterproof notebook. Logs will be maintained according to FD 1000.

2. Sample Collection, Preservation and Transport

All documentation procedures will be carried out in accordance with FD 5000. Chain of custody forms and sample tags will be supplied by the laboratory, copies of which are provided as Figures 5 and 6. Legal or evidentiary chain of custody, as defined in FD 1000 and the NELAC standards, will be executed.

3. Equipment Decontamination, Calibration and Maintenance Logs

Documentation of equipment decontamination will be carried out according to FD 2000. Certificates from vendors will be retained, whether from a laboratory or commercial vendor. Records of the lot numbers of reagents and other cleaning supplies, with the inclusive dates for use, will be recorded. Pre-cleaned container packing slips, lot numbers of shipments, and certification statements provided by the vendor will be retained. All local, state and federal

requirements pertaining to waste storage and disposal will be followed. Equipment maintenance documentation will be carried out according to FDEP SOP FD 3000.

B. Laboratory Documentation and Reporting

Laboratory deliverables will be submitted in Excel ’97 or Access 2000 format. Laboratory reports will be issued in accordance with NELAC requirements. The data elements specified in DEP-QA-002/02, Table 2, will be included.

Quarterly progress reports submitted to FDEP shall include the following information:

- Laboratory sample identification (ID) and associated field ID
- Analytical/test method
- Parameter/analyte name
- Analytical result (including dilution factor)
- Result unit
- Applicable qualifiers per Table 1 of Chapter 62-160, F.A.C.
- Result comments to include corrective/preventive actions taken for any failed QC measure (e.g., QC sample, calibration failure, etc.) or other problem related to the analysis of the samples
- Date and time of sample preparation
- Date and time of sample analysis
- Results of laboratory verification of field preservation
- Sample matrix
- DoH ELCP certification number for each laboratory
- MDL
- PQL
- Sample type (blank type, duplicate type, etc.)
- Field and laboratory QC blank results:
  - Laboratory QC blank analysis results as required by the method, NELAC Chapter 5 and the QAPP
  - Field quality control results including trip blanks, field blanks, equipment blanks, and field duplicates (or replicates) as specified in the QAPP
- Results of sample matrix spikes, laboratory duplicates or matrix spike duplicates, as applicable
- Results of surrogate spike analyses
- Results of laboratory control samples (LCS)
- Link between each reported quality control measure (e.g., QC blanks, matrix spikes, LCS, duplicates, calibration failure, tec.) and the associated sample results
- Acceptance criteria used to evaluate each reported quality control measure

C. Archival of Electronically Stored Data

Reports generated will be maintained by Sutron, PBS&J and B&H.

D. QAPP Document Control

Upon the generation of a new revision of the QAPP, copies will be distributed to the individuals listed in Section 3 of the QAPP via email.

Table 3 Documentation and Records Storage

Document/Record	Location	Retention Time	Format
QAPP and revisions	B&H, Sutron and PBS&J offices	5 years after project completion	Paper, electronic
QAPP distribution documentation	B&H, Sutron and PBS&J offices	5 years after project completion	Paper, electronic
Field notebooks	B&H, Sutron and PBS&J offices	5 years after project completion	Paper
Field equipment calibration and maintenance logs	B&H, Sutron and PBS&J offices	5 years after project completion	Paper
Chain of custody	B&H, Sutron and PBS&J offices	5 years after project completion	Paper
Field SOPs	B&H, Sutron and PBS&J offices	5 years after project completion	Paper, electronic
Laboratory QA manual	Laboratory	5 years after project completion	Paper, electronic
Laboratory SOPs	Laboratory	5 years after project completion	Paper, electronic
Laboratory data reports	Laboratory	5 years after project completion	Paper, electronic
Laboratory equipment maintenance logs	Laboratory	5 years after project completion	Paper
Laboratory calibration records	Laboratory	5 years after project completion	Paper
Audit/corrective action documentation	B&H, Sutron and PBS&J offices	5 years after project completion	Paper, electronic

Figure 6 Chain of Custody Forms

Sanders Laboratories INC.
Environmental Testing Services

CHAIN-OF-CUSTODY RECORD

PROJECT #

Page ____ of ____

Client
Address
Phone Fax

Report To:
Bill To:
P.O. #
Project Name
Project Location:

Sample Supply:
Customer Type:
Field Report #:
Kit #
REQUESTED DUE DATE:

Sampled By (PRINT)
Sampler Signature

Bottle #	SAMPLE DESCRIPTION	Sample DATE	Sample TIME	Sample TYPE	PRESERVATIVES 4°C	UNPRESERVED	H_2SO_4	HNO_3	HCL	ANALYSES REQUEST	Sample ID #

Bottle Lot #	OUT / DATE	SHIPMENT METHOD RETURNED / DATE	VIA	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	COMMENTS:		COOLER #						
			COOLER SEAL INTACT Yes No						

1050 Endeavor Ct., Nokomis, FL 34275-3693 • (941)488-8103 • FAX 484-6774 • 16880 Gator Road, Fort Myers, FL 33912 • (239) 590-0337 • FAX (239) 590-0536

Jupiter
Environmental Laboratories, Inc.

150 S. Old Dixie HWY
Jupiter, FL 33458
PH 561-575-0030
FX 561-575-4118

CHAIN OF CUSTODY RECORD

DATE:
PAGE: _____ OF _____

FILL IN THE ORANGE AREAS-CLIENT

LABORATORY CLIENT:
ADDRESS:
CITY:
TEL: FAX: E-MAIL:

CLIENT PROJECT NAME / NUMBER:
PROJECT CONTACT:
SAMPLER(S): (SIGNATURE)

Client PO or P.O. #:
QUOTE #:
LOG #

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 3 DAYS (some analytes CANNOT be <3 days)

SPECIAL REQUIREMENTS-pricing/QC package
☐ SFWMD ☐ FDEP ☐ QAQC Level : 1 2 3 see price list for fees

SPECIAL INSTRUCTIONS

Temp Control C

Matrix

REQUESTED ANALYSIS and preservative code

Code
Analysis

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont

Relinquished by: (Signature) LAB/Client	Date:	Time	Received by: (Signature) CLIENT/Lab	Date:	Time:
Relinquished by: (Signature) Lab/Client	Date:	Time	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:

Matrix Codes:
Preservation Codes: *C=chilled S=Sulfuric acid N=Nitric acid H=hydrochloric acid O=Other _____ (fill in)
*ALL SAMPLES MUST BE ON ICE EXCEPT ultra-trace Hg
Please print name of samplers here:

HARBOR BRANCH
ENVIRONMENTAL
LABORATORIES, INC.
5600 US 1 North, Fort Pierce, FL 34946
Phone: (772) 465-2400, Ext. 285 Fax: (772) 467-1584

Chain-of-Custody

and

Agreement to Perform Services

USE BALL POINT PEN
PRESS HARD
COMPLETELY FILL OUT
ALL NON GREYED AREAS
PRINT LEGIBLY

Laboratory not responsible for omitted information

____FDOH # E96080
5600 U.S. 1 North
Fort Pierce, FL 34946

____FDOH # E85370
307 Coolidge Avenue
Lehigh Acres, FL 33936

____FDOH # E83509
255 Enterprise Rd., Suite 1
Deltona, FL 32725

____FDOH # E84418
2514 Osawaw Blvd.
Spring Hill, FL 34607

Company: _____

Address: _____

_____ Zip: _____

Phone: _____ Fax: _____

Client Contact: _____

Project Name: _____

Sampled By: _____

Method(s) of Shipment: _____

e-mail: _____

Standard Laboratory Turn Around Time

Or

Rush in ____ Business Days
Requires Laboratory Approval

For Lab Use Only

Temperature Checked Y N
Custody Seals Intact Y N
pH Checked Y N

LAB # _____

PRESERVATIVE

ANALYSES REQUESTED

Preservation Key

H=Hydrochloric Acid
N=Nitric Acid
S=Sulfuric Acid
SH=Sodium Hydroxide
P=Phosphoric Acid
ST=Sodium Thiosulfate
U=Unpreserved

LAB ID	COLLECTION DATE	COLLECTION TIME	Sample Type*	MATRIX**	# Containers	SAMPLE DESCRIPTION As Will Appear On Report								COMMENTS

* Sample Type: G=Grab C=Composite

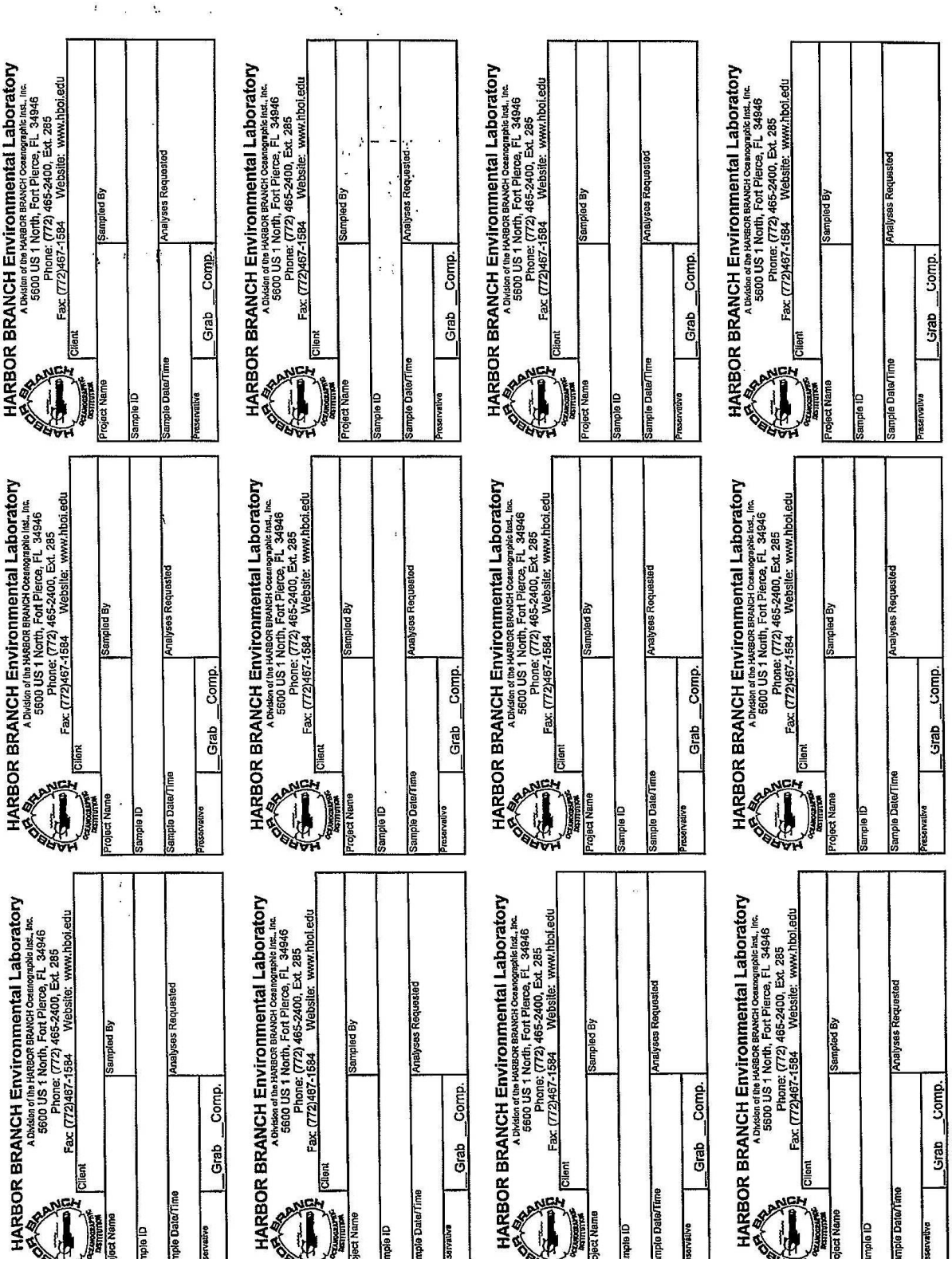
** Matrix: S=Solid SL=Sludge DW=Drinking Water GW=Ground Water SW=Surface Water WW=Wastewater M=Marine

Report Page ___ of ___		
RELINQUISHED BY	RELINQUISHED BY	RELINQUISHED BY
DATE/TIME	DATE/TIME	DATE/TIME
RECEIVED BY	RECEIVED BY	RECEIVED FOR HBEL CUSTODY BY
DATE/TIME	DATE/TIME	DATE/TIME

Distribution: WHITE with REPORT; YELLOW for FILE; PINK to CLIENT; GOLD for SAMPLER

CHAIN PAGE _____ of _____

Figure 7 Chain of Custody Labels



An example of the stickers that go onto bottles during "kit prep" prior to shipment to client. For use by client in the Field. Can be pre-printed by lab, or can be filled out in field on put on bottles by techs.


36 E. B.J. TUNNELL BLVD.
MIAMI, OK 74354
1-800-331-7452

Specially Cleaned Sample Container

Lot #:

DATE: | TIME: | COLLECTED BY:

SAMPLING SITE:

SAMPLE TYPE:
☐ Grab ☐ Composite ☐ Other

TESTS REQUIRED:

PRESERVATIVE

An example of the labels generated by the Jupiter Environmental laboratories, Inc. LIMS system during sample Log-in.

Samples use bar code for tracking thru departments and for disposal. Any samples with "hits" are flagged in LIMS and when scanned during sample disposal they are treated appropriately.

Labels contains all information required under FDEP/NELAC guidelines.
Customer
Project ID
Sample ID
Sample location
Sample description
Disposal date
Bottle type/size
Preservation
project manager(lab)
Chain of Custody ID #
Sample number and fractions number (COC+Sample number - Fraction code ABCD etc)


CONTAINER
TYPE: PL 125
PRSV: COOL
P.MGR: KB
COC: 11111
144411
615628001-A
CST: Abrika Pharmaceuticals
PRJ: FAKE JOB
SID: NO SAMPLE
SAMPLED:
LOCATION:
DESC: NO SAMPLE
KEEP_UNTIL: 05-JUN-06

Project	Date/time
Sample Type Grab composite	Sample location
Matrix	Analysis
Preservative	

SANDERS ENVIRONMENTAL LABORATORIES EXAMPLE BOTTLE LABEL

Section 10 **Sampling Process Design**

A. Site Location

Two site locations will be in Stuart, one at the intersection of Lincoln St. and Dixie, and one on SE 7th St. One site location will be in Rockledge City, at the intersection of Little John Dr. and Rockledge Drive. One site location will be in Sarasota at the intersection of Oriole Dr. and McClellan Pkwy.

One baffle box has been installed at each site, for a total of four baffle boxes. Two autosamplers will be installed at each of the four baffle box sites, for a total of 8 autosamplers.

B. Monitoring and Sampling Frequency and Duration

At each site, 7 to10 storm events will be sampled, where each storm event will have a minimum of 0.2 inch of rainfall. Sampling will end once 10 storm events have been captured meeting the 0.2 inch rainfall requirement, unless extreme weather conditions prevent the sampling of 10 events, in which case at least 7 events will be sampled.

Rain gauges will be installed at each site to keep continuous records of rainfall during the project period. Flow meters will be installed at each box to record volumes of water passing through the boxes.

Each baffle box will be equipped with one rain gauge, one flow meter, and two refrigerated autosamplers. One flow meter will be installed at the outflow of each baffle box to record flow. This flow meter will connect to one rain gauge and two autosamplers. The flow meter will be programmed to receive the rainfall information from the rain gauge and trigger the autosamplers, taking the samples when the rainfall value is greater than 0.2 inch by the flow weighted composite method. For each baffle box and each storm, the inflow autosampler will composite a single inflow sample and the outflow autosampler will composite a single outflow sample.

The plan area of each baffle box chamber will be ascertained before the initiation of the study, through drawings or direct measurement. The volume of material accumulated in each baffle box bottom chamber will be estimated following each storm event. Volume will be determined by multiplying the average depth of gross solids material in the chamber by the plan area. The average depth of material will be ascertained by one or more physical measurements of depth of the material surface or its distance below a vertical datum. A measuring rod with a small end plate that can rest on the material surface will be used to measure the depth of accumulated sediment in the baffle box chambers. Depth estimates along with visual observations of the pattern of the height of solids accumulation, will be used to estimate and average material depth.

The volume of material accumulated on the screens of NSBB will be estimated following each storm event. Volume will be determined by visual inspection of material trapped on the screens, and an estimate of volume based on an appropriate number of physical measurements to quantify depths and area of deposited material.

At the initiation of the study, all gross solids material in the baffle box bottom chambers, screens of the two NSBB, and any floating material, will be completely removed. During the duration of study (corresponding to the 7 to 10 monitored storm events), the material accumulated in the bottom chambers of each baffle box will be removed twice. The material accumulated on the screens of the two NSBB will be removed twice during the study period, at the same time as bottom chambers are cleaned out. Any floating material that accumulates behind skimmers, if any are installed, will also be removed.

C. Number of Samples and Matrices

Samples collected by Sutron will be sent to Harbor Branch Environmental Laboratory in Ft. Pierce, FL for analysis. Sieve analysis, percent organic matter and density analysis will be performed by MACTEC Engineering and Consulting, Inc. in Jacksonville, FL. Sutron will collect stormwater samples and sub-contract sediment/solid sampling to HBEL.

Stormwater samples collected by PBS&J will be shipped to Sanders Laboratories in Nokomis, FL. and Jupiter Environmental Laboratories in Jupiter, FL. for analysis. Solid samples collected by PBS&J will be shipped to Harbor Branch Environmental Laboratory in Ft. Pierce, FL for analysis. Sieve analysis, percent organic matter and density analysis will be performed by MACTEC Engineering and Consulting, Inc. in Jacksonville, FL.

<u>Aqueous Samples</u>
Refrigerated autosamplers will be used to collect flow weighted stormwater samples at the entrance and exit to the baffle boxes. Ten storm events will be sampled for each of the four site locations. One composite inflow and outflow sample will be analyzed per storm per site. A maximum of 80 samples collected via autosampler will be shipped to the laboratory for analysis. Fecal coliform grab samples will be collected by pouring the composite sample into a single sterile container at the end of the sampling event from each five gallon autosampler bottle after it has been thoroughly mixed.

Aqueous methodologies, precision and accuracy, MDL and PQL information for all laboratories is presented in Tables 8 and 9.

<u>Samples Collected from Baffle Box Chambers</u>

Volume Measurement

Each time water quality samples are taken, the volume of all material (trash and debris, herbaceous organic matter, and sediment) will be calculated for each baffle box chamber. Total accumulated volume will be calculated by multiplying the horizontal cross sectional area of each chamber by the average depth of the accumulated material in that chamber. The average depth of accumulation will be determined by measuring the depth of material at a sufficient number of locations to obtain a reasonable average depth estimate for the chamber.

Laboratory Analysis

Two times during the life of the project, samples of bottom chamber material (trash and debris, herbaceous material, and sediment) will be collected from each baffle box chamber. One sampling event will be performed after 4-5 storm events depending on material accumulation and the second at the end of water quality monitoring. At least one event will be performed during or immediately after the "wet" season.

The sample volumes from individual chambers must be great enough to form a composite sample volume that is sufficient for all subsequent analyses. For each baffle box, the material in each chamber will be combined to form a single volume-weighted composite sample. Compositing will be performed on a weighted basis in each respective laboratory, with weighing criterion based on the volume of herbaceous material and sediment accumulated in each chamber (trash and debris not included). With the weighted compositing procedure, chambers with greater accumulated volume (typically the upstream chambers) will contribute a greater amount of material to the composite. The volume-weighted composited (with trash and debris removed) samples will be analyzed for the parameters listed in Table 7.

Following each bottom chamber sampling event, all material in the boxes will be removed by the responsible municipal maintenance entity under the supervision of the consultants. The total volume, mass, and density of the herbaceous material/sediment will be calculated, and analyses will be performed in the composite sediment sample.

For baffle box bottom material, a total of 8 composite samples (4 baffle boxes x 2 samples per baffle box) will be collected and a total of 8 sets of analyses will be performed.

<u>Material Collected on the Nutrient Separating Baffle Box Screens</u>

Volume Measurement

Each time water quality samples are taken, the volume of all material (trash and debris, herbaceous organic matter, and sediment) will be estimated for the Nutrient Separating Baffle Box screen.

Total accumulated volume will be estimated by averaging horizontal cross section and depth measurements.

Laboratory Analysis

Two times during the life of the project, the material trapped on the screens (trash and debris, herbaceous matter, and sediment) will be completely removed. One sampling event will be performed after 4-5 storm events depending on material accumulation and the second at the end of water quality monitoring. At least one event will be performed during or immediately after the "wet" season.

The material removed from the screens will be spread out on a flat surface. Trash and debris (litter, paper, plastic, metal, glass, cups, styrofoam, bags, branches, 2x4, etc.) will be visually identified and removed by hand. The bulk volume of the removed material will be measured and the dry weight determined. At least three representative samples will be collected from the three baffle box screen sections of each baffle box, and a composite sample collected. A portion of the wet composite sample will be analyzed for PAHs.

The remaining material (herbaceous material and sediment) will be mixed and dried for 48 hours outside, spread out to a thickness less than ½ inch and dried for an additional 72 hours before mixing again. At least five samples collected from different locations will be combined into to a single composite sample. The individual sample volumes must be great enough to form a composite sample volume that is sufficient for all subsequent analyses. The composite sample will be dried again, weighed, and divided into two subfractions by using non-metallic screening (Florida Aquatic Ecosystems M1000, 1 mm) to separate the organic material from the inorganic material. The two subfractions of each composited sample (material retained on the 1 mm screen, and material passing through the 1 mm screen) will be sent to the lab to be analyzed for the parameters listed in Table 7. Sieve analysis will not be performed on the portion of the sample that is retained on the 1 mm screen since the particle sieves that will be used are less than 1 mm.

For NSBB screen material, a total of 4 dried composite samples and 8 dried composite sample subfractions (2 Type 2 baffle boxes x 2 samples per baffle box x 2 subfractions/sample) will be collected during the study and a total of 8 sets of analyses will be performed. In addition, 4 composite wet samples will be analyzed for PAHs.

The PAH dry weight (mg/kg) will be calculated for the wet composite sample, and compared to the PAH (mg/kg) dry weight for the two dry subsamples. Using the dry weight of the composite sample and each subsample, mg/kg dry weight will be calculated for the total composite and each of the two subsamples, and a mass balance calculation used to determine PAH loss from drying and sieving (1mm).

Section 11 **Sampling Methodology**

All sampling performed will conform to the requirements set forth in Chapter 62-160, Florida Administrative Code (F.A.C.) and the document "Requirements for Field and Analytical Work performed for the Department of Environmental Protection under Contract" (DEP-QA-002/02), February 2002, and "Standard Operating Procedures for Field Activities" (DEP-QA-001/01).

A. Aqueous Sample Collection

1. Equipment Specifications

The following equipment will be used during the collection of aqueous samples. The sampling equipment construction materials are summarized in Table 4.

a) Rain Gauge

One ISCO 674 rain gauge registers the precipitation information at each location.

b) Flow Meters

Three ISCO 750 Area-Velocity Flow Modules and one ISCO 730 Flow Module will be installed at the outflow pipes of the baffle boxes to record water flow rate. The ISCO 730 Flow Module measures depth of water in a pipe and calculates water flow rate using Manning's Formula. Although this is a very reliable method of flow estimation, it can only be implemented when the pipe is dry unless runoff is present and the pipe discharge has a free surface with no surcharged tailwater condition. The baffle box location in Sarasota meets these requirements and therefore depth measurement will be used for flow measurement. The other 3 monitoring locations are different because pressurized flow conditions (full pipe flow) are expected at least 50% of the time that discharge is occurring. Because of this, discharge cannot be calculated from depth measurements alone via Manning's formula; therefore, the ISCO 750 Area-Velocity Flow Module will be used to record flow at the two Stuart sites and the Rockledge site.

c) Autosamplers

Two refrigerated ISCO Portable Sequential Samplers will be deployed at each baffle box for taking samples from the inflow and the outflow pipes of each baffle box. Since influent and effluent samples will be flow composited, a single sample collection polyethylene bottle may be used for each sampler. Intake lines will use strainers and be mounted 2 inches above the pipe invert.

d) Flowlink Software

Flowlink operational and data analysis software will be used to program the ISCO flow meters to register the precipitation values from the ISCO 674 rain gauge, record the water levels and velocity and convert the flows using the flow continuity equation and Manning's equation; and to trigger the ISCO autosamplers to take flow weighted samples at precipitation values greater than 0.2 inch.

2. Procedure for Collection and Preservation of Flow Weighted Composite Samples

Aqueous sampling will be carried out according to FDEP SOP FS 2100 and FS 2000. Preservation and filtration kits will be obtained from the laboratory. Filtration of orthophosphate samples will be carried out in the field in accordance with FDEP SOP FS 2000. Funnels will be dedicated to each baffle box and matrix.

Aqueous sample preservation and holding times are provided in Table 5.

3. Procedure for Collection and Preservation of Fecal Coliform Samples

Fecal coliform samples will be collected by pouring a well mixed portion of the contents of the autosampler-composited influent and effluent samples into a sterile container.

B. Herbaceous Material and Sediment Collection and Processing

The sampling equipment construction materials are summarized in Table 4.

1. Trash, Herbaceous Matter, and Sediment Samples In Baffle Box Chambers

Trash, herbaceous material, and sediment samples from the baffle box chambers will be collected in accordance with FDEP SOP FS 4000 using a stainless steel hand auger or petit ponar. Samples will be volume-weighted composited into one sample and processed in the lab for analysis.

The baffle box chambers will be vacuumed clean after each sediment sampling event by the responsible municipal maintenance entity under the supervision of the consultants and total volume and mass of removed sediment and total volume and mass of calculated. Sediment sample preservation and holding times are provided in Table 6.

2. Trash, Herbaceous Material and Sediment Gathered from NSBB Screens

For the NSBB, the trash, herbaceous material and sediment trapped in the screens will be removed and sorted. Sediment will be separated from the trash samples will be prepared according to the procedure in Section 10C described above and shipped to the laboratory in double sealed Ziploc bags. The total volume and mass of removed sediment and total volume and mass of debris will be calculated. Sediment and gathered from the screens will be tested separately from the debris.

Sample preservation and holding times are provided in Table 6.

Table 4 Sampling Equipment

Equipment Type	Construction Materials
Autosampler ISCO 5 gallon portable sample bottles	Polyethylene
Autosampler tubing	Tygon tubing
Hand auger	Stainless steel
Petit ponar	Stainless steel
Funnels-various sizes	Polyethylene

C. Equipment Decontamination

All field equipment will be decontaminated using the procedures outlined in FDEP SOP FC 1000, including autosamplers, autosampler bottles and tubing, hand augers and petit ponars. Autosampler bottles, hand augers, petit ponars and the compositing equipment will be decontaminated after each sampling event. Sampling equipment will be dedicated to each location. Equipment decontamination will by carried out at the HBEL and JEL facilities.

Shipping coolers will be supplied and decontaminated by the laboratory.

All local, state and federal requirements pertaining to waste storage and disposal will be followed.

Section 12 Sample Handling and Chain of Custody

A. Sample Identification

Each sample container will be labeled with a unique field identification code according to FD 1000. The chain of custody labels are presented as Figure 7.

B. Chain of Custody Procedures

Legal or evidentiary chain of custody, as defined in FD 1000 and the NELAC standards, shall be executed. The chain of custody form is presented as Figure 6.

C. Shipping Procedures

Samples will be transported to the laboratory by the field technician immediately following collection. Samples will be stored in coolers and iced from time of collection to delivery at the laboratory.

D. Sample Containers, Preservation and Holding Times

Sample containers and preservation kits will be obtained from the laboratory. Filters and syringes used to filter orthophosphate samples will be obtained from the laboratory. Preservation, holding times, and container types will conform to the requirements in FS 1000.

Table 5 Aqueous Matrix Containers, Preservation, and Holding Times

Parameter	Container	Preservation	Holding Time
Total Cadmium	250ml HDPE	HNO_3 to pH<2	6 months
Total Chromium	250ml HDPE	HNO_3 to pH<2	6 months
Total Copper	250ml HDPE	HNO_3 to pH<2	6 months
Total Zinc	250ml HDPE	HNO_3 to pH<2	6 months
Nitrate + Nitrite	125ml HDPE	4°C, H_2SO_4 to pH<2	28 days
TKN	125ml HDPE	4°C, H_2SO_4 to pH<2	28 days
Ammonia	125ml HDPE	4°C, H_2SO_4 to pH<2	28 Days
Total Phosphorus	125ml HDPE	4°C, H_2SO_4 to pH<2	28 days
Orthophosphate	60ml HDPE	Filter with 0.45µ filter immediately then 4°C	48 hours
TSS	1 L HDPE	4°C	7 days
Fecal Coliforms	120ml Sterile	4°C	6 hours

Table 6 Herbaceous Material/Sediment Matrix Containers, Preservation and Holding Times

Parameter	Container	Preservation	Holding Time
Sieve analysis	1 gal. Ziploc bag	N/A	N/A
Percent Organic Matter	1 gal. Ziploc bag	N/A	N/A
Density	1 gal. Ziploc bag	N/A	N/A
Total Nitrogen	8 oz Glass Wide Mouth	4°C	7 days
Chemical Oxygen Demand	8 oz Glass Wide Mouth	4°C	7 days
Total Phosphorus	8 oz Glass Wide Mouth	4°C	7 days
Mercury	8 oz Glass Wide Mouth	4°C	28 days
Aluminum	8 oz Glass Wide Mouth	4°C	6 months
Barium	8 oz Glass Wide Mouth	4°C	6 months
Chromium	8 oz Glass Wide Mouth	4°C	6 months
Cadmium	8 oz Glass Wide Mouth	4°C	6 months
Iron	8 oz Glass Wide Mouth	4°C	6 months
Nickel	8 oz Glass Wide Mouth	4°C	6 months
Zinc	8 oz Glass Wide Mouth	4°C	6 months
Copper	8 oz Glass Wide Mouth	4°C	6 months
Acenaphthylene	Glass, 8 oz. wide mouth with Teflon lined lid	4°C	7 days until extraction, 40 days after
Benzo(a)pyrene	Glass, 8 oz. wide mouth with Teflon lined lid	4°C	7 days until extraction, 40 days after
Benzo(g,h,i)perylene	Glass, 8 oz. wide mouth with Teflon lined lid	4°C	7 days until extraction, 40 days after
Fluoranthene	Glass, 8 oz. wide mouth with Teflon lined lid	4°C	7 days until extraction, 40 days after
Fluorene	Glass, 8 oz. wide mouth with Teflon lined lid	4°C	7 days until extraction, 40 days after
1-Methylnaphthalene	Glass, 8 oz. wide mouth with Teflon lined lid	4°C	7 days until extraction, 40 days after
Naphthalene	Glass, 8 oz. wide mouth with Teflon lined lid	4°C	7 days until extraction, 40 days after
Pyrene	Glass, 8 oz. wide mouth with Teflon lined lid	4°C	7 days until extraction, 40 days after

Section 13 Analytical Methodology

A. Sediment/Solid Matrix

Table 7 HBEL/MACTEC Sediment/Solid Methodology, Precision and Accuracy, Detection Limits

Parameters	Matrix	Units	Method	Precision (% RSD)	Accuracy (% Recovery)	MDL	PQL
Sample Preparation	Sediment/Solid	N/A	Sample separation and preparation per description in §10	N/A	N/A	N/A	N/A
Sieve Analysis (5 screens: #20, #40, #80, #100, <#200)	Sediment/Solid	N/A	ASTM D422	N/A	N/A	N/A	N/A
Percent Organic Matter	Sediment/Solid	%	ASTM D2974	N/A	N/A	N/A	N/A
Density	Sediment/Solid	g/cc	ASTM D2937	N/A	N/A	N/A	N/A
Total Nitrogen	Sediment/Solid	mg/kg	EPA/CE81	12	64 - 136	2	8
Chemical Oxygen Demand	Sediment/Solid	mg/kg	EPA 410.4	12	71 - 136	500	2000
Total Phosphorus	Sediment/Solid	mg/kg	EPA 365.4	14	70 - 132	0.0094	0.0376
Mercury	Sediment/Solid	mg/kg	EPA 7470	12	67-141	0.0035	0.014
Aluminum	Sediment/Solid	mg/kg	EPA 6010	15	80 - 116	1.5	6
Barium	Sediment/Solid	mg/kg	EPA 6010	9	88 - 111	0.09	0.36
Chromium	Sediment/Solid	mg/kg	EPA 6010	7	88 - 112	0.09	0.36
Cadmium	Sediment/Solid	mg/kg	EPA 6010	8	89 - 113	0.035	0.14
Iron	Sediment/Solid	mg/kg	EPA 6010	18	79 - 138	1.25	5
Nickel	Sediment/Solid	mg/kg	EPA 6010	7	85 - 111	0.1	0.4
Zinc	Sediment/Solid	mg/kg	EPA 6010	18	80 - 125	5	20
Copper	Sediment/Solid	mg/kg	EPA 6010	17	84 - 120	0.07	0.28
Acenaphthylene	Sediment/Solid	µg/kg	EPA 8270	22	36 - 122	69	276
Benzo(a)pyrene	Sediment/Solid	µg/kg	EPA 8270	9	55 - 117	67	268

Parameters	Matrix	Units	Method	Precision (% RSD)	Accuracy (% Recovery)	MDL	PQL
Benzo(g,h,i)perylene	Sediment/Solid	µg/kg	EPA 8270	13	56 - 123	130	520
Fluoranthene	Sediment/Solid	µg/kg	EPA 8270	20	50 - 126	72	288
Fluorene	Sediment/Solid	µg/kg	EPA 8270	14	40 - 131	74	296
1-Methylnaphthalene	Sediment/Solid	µg/kg	EPA 8270	18	25 - 113	79	316
Naphthalene	Sediment/Solid	µg/kg	EPA 8270	21	27 - 112	82	328
Pyrene	Sediment/Solid	µg/kg	EPA 8270	13	51 - 121	160	640

B. Aqueous Matrix

Table 8 HBEL Aqueous Methodology, Precision and Accuracy, Detection Limits

Parameters	Matrix	Units	Method	Precision (% RSD)	Accuracy (% Recovery)	MDL	PQL
Total Cadmium	Aqueous	mg/L	EPA 200.7	6	84 - 107	0.0007	0.0028
Total Chromium	Aqueous	mg/L	EPA 200.7	6	88 - 106	0.0018	0.0072
Total Copper	Aqueous	mg/L	EPA 200.7	7	85 - 113	0.0014	0.0056
Total Zinc	Aqueous	mg/L	EPA 200.7	11	78 - 130	0.01	0.04
Nitrate + Nitrite	Aqueous	mg/L	EPA 353.2	12	72 - 126	0.0054	0.0216
Total Kjeldahl Nitrogen	Aqueous	mg/L	EPA 351.2	12	70 - 130	0.048	0.192
Ammonia	Aqueous	mg/L	EPA 350.1	10	71 - 126	0.009	0.036
Total Phosphorus	Aqueous	mg/L	EPA 365.1	14	71 - 128	0.0094	0.0376
Orthophosphate	Aqueous	mg/L	EPA 365.1	7	84 - 110	0.006	0.024
Total Suspended Solids	Aqueous	mg/L	EPA 160.2	20	79-126	1	4
Fecal Coliforms	Aqueous	CFU/100ml	SM 18-9222D	15	Presence	1	4

Table 9 JEL/SL Aqueous Methodology, Precision and Accuracy, Detection Limits

Laboratory	Parameters	Matrix	Units	Method	Precision (% RSD)	Accuracy (% Recovery)	MDL	PQL
JEL	Total Cadmium	Aqueous	µg/L	EPA 200.8	<20	75-125	0.091	0.18
JEL	Total Chromium	Aqueous	µg/L	EPA 200.8	<20	75-125	0.038	0.076
JEL	Total Copper	Aqueous	µg/L	EPA 200.8	<20	75-125	0.2	0.4
JEL	Total Zinc	Aqueous	µg/L	EPA 200.8	<20	75-125	0.95	1.9
JEL	Nitrate + Nitrite	Aqueous	mg/L	EPA 353.1	<20	85-115	0.002	0.02
SL	Total Kjeldahl Nitrogen	Aqueous	mg/L	EPA 351.2	20	75.2-127	0.1	0.4
JEL	Ammonia	Aqueous	mg/L	EPA 350.1	<10	90-110	0.012	0.02
JEL	Total Phosphorus	Aqueous	mg/L	JEL ICP 002	<20	85 - 115	0.001	0.004
SL	Orthophosphate	Aqueous	mg/L	EPA 365.1	7	84-110	0.006	0.024
SL	Total Suspended Solids	Aqueous	mg/L	EPA 160.2	20	79-126	1	4
SL	Fecal Coliforms	Aqueous	CFU/100ml	SM 18-9222D	15	Presence	1	4

Section 14 **Quality Control**

A. Field Quality Control Samples

All field QC samples will be collected in accordance with FDEP SOP FQ 1000. Blanks are not required for microbiological, or physical and aggregate properties.

Analyte free water for use in generating field blanks will be obtained from the laboratory.

Field quality control samples evaluate the precision of sampling techniques, the effectiveness of decontamination, and address possible effects of sample handling and transport. All quality control samples will be prepared on-site in the field, preserved and submitted to the laboratory along with the routine samples. Field generated quality control blanks will be collected according to the requirements of FQ 1230.

1. Field Generated QC Blanks

Precleaned Equipment (EB)
These blanks are collected on sampling equipment that has been brought to the site pre-cleaned and ready for use. Blanks will be collected at a minimum of 5% of each reported result/matrix combination for the life of a project. At least one blank for each reported test result/matrix combination will be collected each year.

Field Cleaned Equipment (FCEB)
These blanks are collected for sampling equipment that has been cleaned in the field. These blanks will be collected should sampling equipment require field decontamination during the course of the event. Blanks will be collected at a minimum of 5% of each reported result/matrix combination for the life of a project. At least one blank for each reported test result/matrix combination will be collected each year.

Field Blanks (FB)
Field blanks are not required if equipment blanks are collected. Collect field blanks if no equipment except the sample container is used to collect the samples or if the sampling equipment is certified clean by the vendor or the laboratory providing the equipment. Field blanks are collected at a minimum of 5% of each reported test result/matrix combination for the life of a project. At least one blank for each reported test result/matrix combination will be collected each year.

Composite Sample Container Blanks
Equipment blanks will be collected on the composite sample containers at a minimum of 5% of each reported result/matrix combination for the life of a project. At least one blank for each reported test result/matrix combination will be collected each year.

Autosampler Tubing Equipment Blank
A blank is collected each time new tubing is installed on an auto sampler or group of autosamplers, or at a frequency of 5% of the tubing changes, whichever is less. If the tubing is

being replaced for multiple autosamplers at the same time, one equipment blank may be collected on a representative length of each batch (spool) of replacement tubing. At least one EB will be collected from each spool or bag of new tubing.

Table 10 Sample and Blank Collection Frequency Summary

Sample Matrix	Maximum # Samples Over 2 years	# EB	# FCEB	# FB	# Composite Container Blanks	# Autosampler Tubing Blanks
Surface Water-Autosampler	80	4	0	N/A	3	12
Material from Baffle Box Chambers	8	2	2*	N/A	N/A	N/A
Material Collected on Screens	12	2	2*	N/A	N/A	N/A
Material Collected Behind Skimmer (if present)	4	2	2*	N/A	N/A	N/A

*Equipment decontamination is to be carried out at the HBEL facility. FCEBs will be collected in the event that field decontamination is necessary.

2. Evaluation of Field Blanks

If an analyte detected in the sample is also found in any field-generated QC blank that is associated with the sample, an attempt will be made to determine the cause of the QC blank contamination. The outcome of this investigation shall be reported and shall include a discussion of the corrective measures taken to minimize future occurrences of QC blank contamination.

If an analyte detected in the sample is also found in any field-generated QC blank that is associated with the sample, the analyte in the affected sample will be reported as estimated ("J" with a narrative explanation) unless the analyte concentration in the affected sample is at least 10 times the reported QC blank value concentration.

B. Laboratory Quality Control Samples

The laboratory shall ensure that the essential quality control measures, laboratory report content and documentation are consistent with Chapter 5 of the NELAC standards and DEP-QA-002/02. In addition, the quality control measures listed below shall be implemented.

1. Quality Control Requirements for Chemical Analyses

a) Matrix-Related Quality Control Samples

The laboratory will ensure that samples associated with this project are used for matrix spikes, and either laboratory duplicates or matrix spike duplicates. The laboratory shall analyze these samples:

- The first time samples from a sample collection matrix (see Table FA 1000-1) are submitted to the laboratory for this project for analysis. The laboratory shall select one or more of the received samples for use in composition of the matrix spike and duplicates.
- The last time samples from the sample collection matrix are received and analyzed. The laboratory shall select one or more of the received samples for use in composition of the matrix spike and duplicates.
- Spike levels must be at the concentrations specified in item c below.
- If the selected sample concentration is expected to be below the specified practical quantitation limit (PQL), then matrix spike duplicates must be used.

b) Laboratory Control Sample

Per NELAC Chapter 5 requirements, as least one Laboratory Control Sample (LCS; also known as Laboratory Fortified Blank) shall be prepared, analyzed and evaluated with each batch of 20 samples or less.

- The acceptance criteria for the LCS, according to the laboratory's Quality Manual, are either obtained from the methodology or may be determined by the laboratory using control charting. In general a failing LCS shall be re-run. If the re-run fails, the matrix spike/matrix spike duplicate may be substituted if the recoveries are within the limits of the LCS with a narration qualifying this. If both the LCS and MS/MSD fail, the data shall be reported and qualified.
- If the LCS is unacceptable, the samples associated with the LCS shall be reprocessed with a new LCS. If the samples cannot be reprocessed, the data must be appropriately qualified.

c) Spiking/Fortification Requirements

All spike fortifications must take place prior to any required sample preparation steps (e.g., sample extraction, sample digestion, pH adjustment, etc.). The final concentration of any spike fortification shall be at the applicable level identified below.

- If any of the samples in the preparation batch are non-detect (i.e., below the MDL specified herein), the spiking level must not be greater than 2 times the PQL.
- The concentration of a spiked sample cannot exceed 5 times the highest concentration of any contracted sample in the preparation batch.

d) Evaluation of Matrix Spikes

The results of matrix spikes must meet the acceptance criteria specified in the methodology or the data must be appropriately qualified.

- If the failure is reported to be due to sample matrix interference, the laboratory shall document the process by which this conclusion is determined.

e) Evaluation of Laboratory Duplicate/Replicate Samples

All replicate samples (sample duplicates, matrix spike duplicates, LCS duplicates or other replicates) must be evaluated for a precision criterion not to exceed 20 % RPD.

- In the event that laboratory replicate agreement is not observed, the laboratory must investigate the poor precision and report the results with appropriate qualifiers and/or comments.

f) Instrument Calibration

In addition to calibration procedures specified in the analytical methods, the laboratory shall ensure that the following requirements are met:

- All sample results shall be chronologically bracketed between acceptable calibration verifications.
- Initial Calibration Requirements
  (i) The minimum number of calibration standards required to calibrate each instrument used for the contracted analyses shall conform to the analytical method approved in the QAPP. If the minimum number of calibration standards is not specified in the method, the number must be specified in the QAPP and shall be consistent with the NELAC Chapter 5 standards.
  (ii) Unless otherwise specified by the method, all sample results shall be based on the initial calibration curve responses.
  (iii) If linear regressions are used, the correlation coefficient shall be equal to or greater than 0.995 for all regressions.
  (iv) Immediately after performing an initial calibration, the accuracy of the calibration shall be verified using a second source. A second source may be a standard, a Standard Reference Material (SRM), or other sample type with a verified concentration such as a QC Check Sample. Standards must have been prepared from a different lot or vendor.
  (v) The acceptance criteria for second-source verifications shall be specified in the QAPP.
  (vi) Sample analysis cannot proceed if an initial calibration is unacceptable.
- Continuing Calibration Requirements:
  (i) When an initial calibration is not performed on the day of analysis, a continuing calibration standard shall be analyzed, evaluated and determined to be acceptable prior to analyzing samples.

(ii) A continuing calibration standard shall be analyzed and evaluated at the end of the analytical run.
(iii) The acceptance criteria for continuing calibration verifications shall be specified in the QAPP.
(iv) For each analytical run, the analytical sensitivity must be evaluated using a continuing calibration standard prepared at the PQL. The analyzed value of this standard must be within 70% – 130% of the expected value. If this PQL check fails, the blank and associated sample results must be reported as "estimated" per Chapter 62-160, F.A.C. unless the affected results are at least 10 times the absolute value of the observed bias of the PQL check.
(v) If a continuing calibration verification fails, samples not chronologically bracketed by acceptable calibration verifications must be reanalyzed or appropriately qualified.

- Sample results below the PQL and above the highest calibration standard shall be appropriately qualified.

g) Quality Control Blanks

- If a Contracted analyte is detected in any analytical QC blank, the sample results that are associated with the blank must be reported with the appropriate qualifier from Chapter 62-160, F.A.C., unless the affected sample concentrations are at least 10 times higher than the calculated QC blank concentration.
- Sample results must be chronologically bracketed with acceptable beginning and ending analytical QC blanks.
- If a Contracted analyte is detected in the field blank, equipment blank or trip blank, the result must be confirmed by reanalyzing a new aliquot of the blank unless the sample concentration results associated with the blank are at least 10 times the calculated blank concentration. The laboratory must investigate the blank contamination to determine that positive blank results are not due to a laboratory error and report the affected samples and field-generated blank results with appropriate qualifiers and/or comments.

h) Quality Control Failure

If any quality control measure or calibration verification fails (including those specified above), samples that are associated with the failure must be reanalyzed, if possible. Sample data that are associated with a failed quality control measure or calibration must be appropriately qualified as specified in Chapter 62-160, F.A.C. An explanatory comment must be attached to the final report for each result that has a qualifier code other than U, I, or A. Any additional qualifier codes used but not explicitly listed in Chapter 62-160, F.A.C. will be identified and defined in the report.

i) MDL/PQL Adjustment

The reported MDL and PQL for each sample must be adjusted for dilution factors and any relevant preparation weights and volumes.

2. Quality Control Requirements for Microbiological Testing

In addition to the quality control requirements outlined in Chapter 5 of the NELAC Standards, the following quality control measures shall be implemented for this project.

All microbiological analyses must conform to the requirements for facilities, personnel qualifications, equipment specifications and quality control measures discussed in *AWWA Standard Methods 20th edition, section 9020*.

a) Quality Control Blanks

- If the membrane filter technique is used, the sample set(s) shall be associated with a beginning and ending filtration blank.
- The results of any blank must be < 1 CFU/100 mL or the associated sample results must be reported with the appropriate qualifier from Chapter 62-160, F.A.C.

b) Laboratory Quality Control Duplicates

- At least 10% of the samples (or one per test run) shall be duplicated.
- All duplicate results shall be evaluated per method specifications using the precision criterion. The range of the transformed duplicates shall not exceed the precision criterion established by the laboratory. In the event that laboratory duplicate agreement is not observed, the laboratory must investigate the poor precision and report the results with appropriate qualifiers and/or comments.
- Field Quality Control Duplicates or Replicates - In the event that agreement (less than or equal the laboratory established precision criterion) is not observed between results from field-generated replicate samples, the laboratory must investigate the replicate analyses to determine that poor precision is not due to a laboratory error and report the results with appropriate qualifiers and/or comments. The laboratory shall use the analytical method specifications for precision control as a guide to evaluation of the field-generated replicate results.

c) Colony Counts

- In addition to the requirements listed below, all analytical results shall be calculated by the procedures established in the microbiological method(s) approved and listed in the QAPP.
- The laboratory shall make every attempt to ensure that colony counts are in the ideal range of 20 – 60 colonies per plate. Reported values from colony plate counts outside this range shall be qualified with a “B” (unless the reported value is from a 100 mL sample and the count is less than 20).
- If all counts are above 60, the result shall be calculated and reported from the highest dilution. This result must be reported as “estimated”.
- The laboratory shall follow the reporting requirements specified in the method for other results that are outside the ideal range.
- If the sample result is “too numerous to count (TNTC)” the laboratory shall report the filtration volume with the data qualifier “Z”.

- Colony counts from samples that have been verified shall be adjusted based on the verification results as specified in the analytical method approved for this Agreement and listed in the QAPP.

Section 15 Instrument/Equipment Decontamination, Testing, Inspection and Maintenance

A. Equipment Requiring Maintenance, Testing or Inspection

Autosamplers

Approximately one monthly maintenance trip will be taken to each of the baffle sites by the technicians. Over a two year period this will result in 24 trips.

B. Equipment Decontamination

All sampling equipment and autosampler bottles will be decontaminated according to FDEP SOP FC 1000. All equipment will be decontaminated at the HBEL, SL, and JEL facilities.

C. Equipment Maintenance

Autosamplers

The autosampler tubing will be inspected each time the sample containers are picked up. If there is evidence of loss of elasticity or discoloration or other conditions that would impact the quality of the sample (such as algal growth), or the pumping flow rate, then the tubing will be replaced. The tubing will be inspected and replaced at a minimum of every six months or when applicable, as discussed above. If the tubing is being replaced for multiple autosamplers at the same time, one equipment blank may be collected on the entire length of replacement tubing.

Equipment preventive and routine maintenance will be documented according to FS 1000.

Section 16 **Field Instrument/Equipment Calibration and Frequency**

The ISCO autosamplers will be calibrated after installation on-site and after samples have been collected for each storm event. Calibration will be carried out according procedures found in the ISCO Portable Sampler manual as well as procedures in FS 2100.

The procedure described in the ISCO sampler manual is as follows:

Use a graduated cylinder for volume measurement.
• The sampler clears the previous calibration setting when you reinitialize the sampler.
• You cannot calibrate while the sampler is running a program.
• When the sampler delivers the sample, it runs through a complete sampling cycle, using the current settings for volume line rinses and retries. If it is a two part program, the sampler uses the volume setting for part A.
To calibrate:
1. Disconnect the pump tube from the bulkhead fitting.
2. Place the end of the tube over a collection container.
3. Follow the steps in Calibrating Sample Volumes in the margin.
4. Reconnect the pump tube to the bulkhead fitting.

Section 17 Inspection/Acceptance of Supplies and Consumables

A. Sample Containers

To be provided by the laboratory prior to each sampling event.

B. Sample Coolers

To be provided by the laboratory prior to each sampling event.

C. Field Filtration Apparatus

To be provided by the laboratory prior to each sampling event.

D. Sample Preservation Kits

To be provided by the laboratory prior to each sampling event.

E. Analyte-Free Water

To be provided by the laboratory prior to each sampling event.

F. Equipment Decontamination Reagents

1. Liqui-Nox Detergent

Liqui-Nox will be provided by the laboratories for decontamination performed at their facilities.

2. Pesticide Grade Solvents

Pesticide grade isopropanol will be provided by the laboratories for decontamination performed at their facilities.

3. Reagent Grade Hydrochloric Acid

Reagent grade hydrochloric acid will be provided by the laboratories for decontamination performed at their facilities.

Lot numbers and manufacturers of all reagents will be documented according to FD 1000.

Section 18 **Non-Direct Measurements**

Not applicable.

Section 19 **Data Management**

The documentation procedures described in FD 1000 will be followed.

A. Record Retention

All laboratory and field records as outlined in Rules 62-160.240 and .340, F.A.C. will be retained for a minimum of five years after the project completion.

B. Field Logs

Notebooks generated in the field by each contractor will be maintained in the West Palm Beach offices.

C. Chain of Custody Records

Chain of custody documentation will be maintained in the Sutron and PBS&J offices and by the laboratories.

D. Laboratory Data

Hardcopy and electronic reports generated by the laboratory will be retained for five years.

E. Data Archival

Electronic deliverables and final reports will be maintained by Berryman & Henigar.

Section 20 **Assessments and Response Actions**

A. Planning Review Audits

Initial: Within 15 days of the completion of the first sampling and analysis event the planning document shall be reviewed relative to the completed field and laboratory activities to determine if the data quality objectives are being met, identify any improvements to be made to the process, and refine the sampling and/or analytical design or schedule. Within one month of the review, a summary of the review, including any corrective action plans or amendments to the planning document, shall be sent to the DEP project manager and a copy shall be maintained with the permanent project records.

Ongoing: Planning reviews as described above shall occur annually.

B. Quality Systems Audits

B&H will make one site visit to each location during the monitoring process for the purpose of assessing the conformance of field activities to the QAPP.

C. Corrective Action

Any deviations from the approved QAPP procedures determined as a result of the site assessment visit will be documented and reported to the B&H project manager. In the event that QAPP procedures were not followed, the data will be considered unusable for inclusion in the final reports.

D. Statements of Usability

As a part of the audit process and the final report, statements about data usability shall be provided relative to the contract Data Quality Objectives and Data Quality Indicators specified in the QAPP.

Section 21 **Reports to Management**

A. Quarterly Reports

The results of the field audits and data validation/verification will be reported to the B&H project manager and will be incorporated into the summary reports to FDEP.

Quarterly reports will be sent to Sarasota County and FDEP, along with preliminary stormwater monitoring results and photographs, and preliminary and final project reports. Project updates will be provided to participating communities.

B. Final Reports

Preliminary and final reports from the monitoring contractors will be reviewed by B&H and revised as necessary. B&H will prepare a draft summary report compiling the results of the four monitoring programs. The draft report will give the results of the four baffle box monitoring programs and recommendations for removal efficiencies to be used by FDEP for the two types of baffle box. It will also summarize other findings and recommendations from the individual sites. The draft report will be submitted to FDEP for review, including three paper copies and one CD. Upon receipt of FDEP review comments, B&H will make revisions to the draft report and prepare the final report. B&H will provide five paper copies and one CD of the final report to FDEP and one paper copy to each participating community.

Section 22 Data Review, Verification and Validation

A. Data Verification

Data verification is the process for evaluating the completeness, correctness, and conformance of the data set against the methodology and contractual specifications.

Sampling, analyses, and data verification will be performed according to the requirements set forth in "Requirements for Field and Analytical Work Performed for the Department of Environmental Protection Under Contract" (DEP-QA-002/02), February 2002, and the quality control requirements discussed in Section 14 of the QAPP.

B. Data Validation

Data validation is an analyte and sample specific process that determines the quality of the data set relative to the end use. Any data deemed to be unusable for the stated objectives will be identified as such in the summary reports.

Section 23 **Verification and Validation Methods**

Data verification and validation will be carried out by the Sutron Corp. and PBS&J project managers and quality assurance officers according to the requirements set forth in "Requirements for Field and Analytical Work Performed for the Department of Environmental Protection Under Contract" (DEP-QA-002/02), February 2002 and according to the requirements included in Sections 7 and 14 of this QAPP.

Section 24 **Reconciliation with User Requirements**

Statements of Usability

As a part of the audit process and the final report, statements about data usability relative to the Data Quality Objectives specified in Section 7 and Quality Control requirements in Section 14 of the QAPP shall be submitted in the reports to management. The results of all quality control measures will be evaluated according to "Requirements for Field and Analytical Work Performed for the Department of Environmental Protection Under Contract" (DEP-QA-002/02), February 2002 and according to the requirements included in this QAPP.

Appendix A

HBEL Certification Documentation

State of Florida
Department of Health, Bureau of Laboratories
This is to certify that

E96080
Harbor Branch Environmental Laboratory
5600 U.S. 1 North
Ft. Pierce, FL 34946

has complied with Florida Administrative Code 64E-1, for the examination of Environmental samples in the following categories:

DRINKING WATER - Group I Unregulated Contaminants, Group II Unregulated Contaminants, Group III Unregulated Contaminants, Microbiology, Other Regulated Contaminants, Primary Inorganic Contaminants, Secondary Inorganic Contaminants, Synthetic Organic Contaminants

NON-POTABLE WATER - Extractable Organics, General Chemistry, Metals, Microbiology, Pesticides-Herbicides-PCB's, Volatile Organics

SOLID and CHEMICAL MATERIALS - Extractable Organics, General Chemistry, Metals, Microbiology, Pesticides-Herbicides-PCB's, Volatile Organics

BIOLOGICAL TISSUES - Extractable Organics, Metals, Pesticides-Herbicides-PCB's

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

EFFECTIVE JULY 1, 2005 **THROUGH JUNE 30, 2006**

Ming S. Chan, Ph.D.
Bureau Chief, Bureau of Laboratories
Florida Department of Health
DH Form 1697, 7/04
NON-TRANSFERABLE 06/13/2005-E96080

Laboratories Certified Under NELAP by the Florida Department of Health
Listing of Organization FOAs Query Results
Database Version:
2/25/2006 5:30:15 AM

Laboratory Name Harbor Branch Environmental Laboratory

DOH ID: E96080

Matrix	Category	Method	Analyte	Certification Date
Non-Potable Water	Extractable Organics	EPA 610	Acenaphthene	3/25/2003
Non-Potable Water	Extractable Organics	EPA 610	Acenaphthylene	3/25/2003
Non-Potable Water	Extractable Organics	EPA 610	Anthracene	3/25/2003
Non-Potable Water	Extractable Organics	EPA 610	Benzo(a)anthracene	3/25/2003
Non-Potable Water	Extractable Organics	EPA 610	Benzo(a)pyrene	3/25/2003
Non-Potable Water	Extractable Organics	EPA 610	Benzo(b)fluoranthene	3/25/2003
Non-Potable Water	Extractable Organics	EPA 610	Benzo(g h i)perylene	3/25/2003
Non-Potable Water	Extractable Organics	EPA 610	Benzo(k)fluoranthene	3/25/2003
Non-Potable Water	Extractable Organics	EPA 610	Chrysene	3/25/2003
Non-Potable Water	Extractable Organics	EPA 610	Dibenz(a h) anthracene	3/25/2003
Non-Potable Water	Extractable Organics	EPA 610	Fluoranthene	3/25/2003
Non-Potable Water	Extractable Organics	EPA 610	Fluorene	3/25/2003
Non-Potable Water	Extractable Organics	EPA 610	Indeno(1 2 3-cd)pyrene	3/25/2003
Non-Potable Water	Extractable Organics	EPA 610	Naphthalene	3/25/2003
Non-Potable Water	Extractable Organics	EPA 610	Phenanthrene	3/25/2003
Non-Potable Water	Extractable Organics	EPA 610	Pyrene	3/25/2003

Non-Potable Water	Extractable Organics	EPA 625	1 2 4-Trichlorobenzene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	1 2-Dichlorobenzene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	1 3-Dichlorobenzene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	1 4-Dichlorobenzene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	2 4 6-Trichlorophenol	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	2 4-Dichlorophenol	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	2 4-Dimethylphenol	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	2 4-Dinitrophenol	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	2 4-Dinitrotoluene (2 4-DNT)	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	2 6-Dinitrotoluene (2 6-DNT)	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	2-Chloronaphthalene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	2-Chlorophenol	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	2-Methyl-4 6-dinitrophenol	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	2-Nitrophenol	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	3 3`-Dichlorobenzidine	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	4-Bromophenyl phenyl ether	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	4-Chloro-3-methylphenol	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	4-Chlorophenyl phenylether	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	4-Nitrophenol	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Acenaphthene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Acenaphthylene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Anthracene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Benzidine	9/23/2002

Non-Potable Water	Extractable Organics	EPA 625	Benzo(a)anthracene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Benzo(a)pyrene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Benzo(b)fluoranthene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Benzo(g h i)perylene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Benzo(k)fluoranthene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Butyl benzyl phthalate	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Chrysene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Di-n-butyl phthalate	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Di-n-octyl phthalate	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Dibenz(a h) anthracene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Diethyl phthalate	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Dimethyl phthalate	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Fluoranthene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Fluorene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Hexachlorobenzene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Hexachlorobutadiene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Hexachlorocyclopentadiene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Hexachloroethane	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Indeno(1 2 3-cd)pyrene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Isophorone	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Naphthalene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Nitrobenzene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Pentachlorophenol	9/23/2002

Non-Potable Water	Extractable Organics	EPA 625	Phenanthrene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Phenol	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	Pyrene	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	bis(2-Chloroethoxy)methane	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	bis(2-Chloroethyl) ether	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	bis(2-Chloroisopropyl) ether (2 2`-Oxybis(1-chloropropane))	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	bis(2-Ethylhexyl) phthalate (DEHP)	3/14/2003
Non-Potable Water	Extractable Organics	EPA 625	n-Nitrosodi-n-propylamine	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	n-Nitrosodimethylamine	9/23/2002
Non-Potable Water	Extractable Organics	EPA 625	n-Nitrosodiphenylamine	9/23/2002
Non-Potable Water	Extractable Organics	EPA 8270	1 2 4-Trichlorobenzene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	1 2-Dichlorobenzene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	1 2-Diphenylhydrazine	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	1 3-Dichlorobenzene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	1 3-Dinitrobenzene (1 3-DNB)	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	1 4-Dichlorobenzene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	2 4 5-Trichlorophenol	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	2 4 6-Trichlorophenol	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	2 4-Dichlorophenol	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	2 4-Dimethylphenol	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	2 4-Dinitrophenol	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	2 4-Dinitrotoluene (2 4-DNT)	7/1/2003

Non-Potable Water	Extractable Organics	EPA 8270	2 6-Dinitrotoluene (2 6-DNT)	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	2-Chloronaphthalene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	2-Chlorophenol	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	2-Methyl-4 6-dinitrophenol	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	2-Methylnaphthalene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	2-Methylphenol (o-Cresol)	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	2-Nitroaniline	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	2-Nitrophenol	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	3 3`-Dichlorobenzidine	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	3-Nitroaniline	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	4-Bromophenyl phenyl ether	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	4-Chloro-3-methylphenol	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	4-Chloroaniline	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	4-Chlorophenyl phenylether	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	4-Methylphenol (p-Cresol)	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	4-Nitroaniline	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	4-Nitrophenol	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Acenaphthene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Acenaphthylene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Aniline	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Anthracene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Benzidine	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Benzo(a)anthracene	7/1/2003

Non-Potable Water	Extractable Organics	EPA 8270	Benzo(a)pyrene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Benzo(b)fluoranthene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Benzo(g h i)perylene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Benzo(k)fluoranthene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Benzoic acid	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Benzyl alcohol	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Butyl benzyl phthalate	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Chrysene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Di-n-butyl phthalate	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Di-n-octyl phthalate	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Dibenz(a h) anthracene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Dibenzofuran	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Diethyl phthalate	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Dimethyl phthalate	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Fluoranthene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Fluorene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Hexachlorobenzene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Hexachlorobutadiene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Hexachlorocyclopentadiene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Hexachloroethane	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Indeno(1 2 3-cd)pyrene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Isophorone	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Naphthalene	7/1/2003

Non-Potable Water	Extractable Organics	EPA 8270	Nitrobenzene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Pentachlorophenol	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Phenanthrene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Phenol	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Pyrene	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	Pyridine	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	bis(2-Chloroethoxy)methane	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	bis(2-Chloroethyl) ether	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	bis(2-Chloroisopropyl) ether (2 2`-Oxybis(1-chloropropane))	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	bis(2-Ethylhexyl) phthalate (DEHP)	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	n-Nitrosodi-n-propylamine	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	n-Nitrosodimethylamine	7/1/2003
Non-Potable Water	Extractable Organics	EPA 8270	n-Nitrosodiphenylamine	7/1/2003
Non-Potable Water	Extractable Organics	FL-PRO	Total Petroleum Hydrocarbons (TPH)	11/12/2004
Non-Potable Water	General Chemistry	DEP SOP 10/03/83	Un-ionized Ammonia	9/23/2002
Non-Potable Water	General Chemistry	EPA 110.2	Color	9/23/2002
Non-Potable Water	General Chemistry	EPA 120.1	Conductivity	9/23/2002
Non-Potable Water	General Chemistry	EPA 130.2	Hardness	9/23/2002
Non-Potable Water	General Chemistry	EPA 150.1	pH	9/23/2002
Non-Potable Water	General Chemistry	EPA 160.1	Residue-filterable (TDS)	9/23/2002
Non-Potable Water	General Chemistry	EPA 160.2	Residue-nonfilterable (TSS)	9/23/2002
Non-Potable Water	General Chemistry	EPA 160.3	Residue-total	9/23/2002

Non-Potable Water	General Chemistry	EPA 160.4	Residue-volatile	9/23/2002
Non-Potable Water	General Chemistry	EPA 180.1	Turbidity	9/23/2002
Non-Potable Water	General Chemistry	EPA 300.0	Bromate	9/23/2002
Non-Potable Water	General Chemistry	EPA 300.0	Bromide	9/23/2002
Non-Potable Water	General Chemistry	EPA 300.0	Chlorate	9/23/2002
Non-Potable Water	General Chemistry	EPA 300.0	Chloride	9/23/2002
Non-Potable Water	General Chemistry	EPA 300.0	Chlorite	9/23/2002
Non-Potable Water	General Chemistry	EPA 300.0	Fluoride	9/23/2002
Non-Potable Water	General Chemistry	EPA 300.0	Nitrate as N	9/23/2002
Non-Potable Water	General Chemistry	EPA 300.0	Nitrate-nitrite	9/23/2002
Non-Potable Water	General Chemistry	EPA 300.0	Nitrite as N	9/23/2002
Non-Potable Water	General Chemistry	EPA 300.0	Orthophosphate as P	9/23/2002
Non-Potable Water	General Chemistry	EPA 300.0	Sulfate	9/23/2002
Non-Potable Water	General Chemistry	EPA 310.1	Alkalinity as CaCO3	9/23/2002
Non-Potable Water	General Chemistry	EPA 335.2	Cyanide	9/23/2002
Non-Potable Water	General Chemistry	EPA 340.2	Fluoride	9/23/2002
Non-Potable Water	General Chemistry	EPA 350.1	Ammonia as N	9/23/2002
Non-Potable Water	General Chemistry	EPA 351.2	Kjeldahl nitrogen - total	9/23/2002
Non-Potable Water	General Chemistry	EPA 351.2 - EPA 350.1	Organic nitrogen	9/23/2002
Non-Potable Water	General Chemistry	EPA 353.2	Nitrate as N	9/23/2002
Non-Potable Water	General Chemistry	EPA 353.2	Nitrate-nitrite	9/23/2002
Non-Potable Water	General Chemistry	EPA 353.2	Nitrite as N	7/23/2004

Non-Potable Water	General Chemistry	EPA 354.1	Nitrite as N	9/23/2002
Non-Potable Water	General Chemistry	EPA 360.1	Oxygen dissolved	9/23/2002
Non-Potable Water	General Chemistry	EPA 365.1	Orthophosphate as P	9/23/2002
Non-Potable Water	General Chemistry	EPA 365.1	Phosphorus total	9/23/2002
Non-Potable Water	General Chemistry	EPA 365.4	Phosphorus total	9/23/2002
Non-Potable Water	General Chemistry	EPA 370.1	Silica-dissolved	9/23/2002
Non-Potable Water	General Chemistry	EPA 376.1	Sulfide	9/23/2002
Non-Potable Water	General Chemistry	EPA 405.1	Biochemical oxygen demand	9/23/2002
Non-Potable Water	General Chemistry	EPA 410.4	Chemical oxygen demand	9/23/2002
Non-Potable Water	General Chemistry	EPA 413.1	Oil & Grease	9/23/2002
Non-Potable Water	General Chemistry	EPA 415.1	Total organic carbon	9/23/2002
Non-Potable Water	General Chemistry	EPA 418.1	Total recoverable petroleum hydrocarbons (TRPH)	9/23/2002
Non-Potable Water	General Chemistry	EPA 420.1	Total phenolics	9/23/2002
Non-Potable Water	General Chemistry	EPA 425.1	Surfactants - MBAS	9/23/2002
Non-Potable Water	General Chemistry	EPA 7196	Chromium VI	11/12/2004
Non-Potable Water	General Chemistry	EPA 9014	Total cyanide	7/1/2003
Non-Potable Water	General Chemistry	EPA 9040	pH	7/1/2003
Non-Potable Water	General Chemistry	EPA 9060	Total organic carbon	7/1/2003
Non-Potable Water	General Chemistry	EPA 9065	Total phenolics	7/1/2003
Non-Potable Water	General Chemistry	EPA 9070	Oil & Grease	7/1/2003
Non-Potable Water	General Chemistry	SM 10200 H	Chlorophylls	9/23/2002
Non-Potable Water	General Chemistry	SM 2120 B	Color	9/23/2002
Non-Potable Water	General Chemistry	SM 2320 B	Alkalinity as CaCO3	9/23/2002

Non-Potable Water	General Chemistry	SM 2340 B	Hardness	9/23/2002
Non-Potable Water	General Chemistry	SM 2520 B	Salinity	9/23/2002
Non-Potable Water	General Chemistry	SM 2540 C	Residue-filterable (TDS)	9/23/2002
Non-Potable Water	General Chemistry	SM 2540 D	Residue-nonfilterable (TSS)	9/23/2002
Non-Potable Water	General Chemistry	SM 4500 F-C	Fluoride	9/23/2002
Non-Potable Water	General Chemistry	SM 4500-Si D	Silica-dissolved	9/23/2002
Non-Potable Water	General Chemistry	SM 5210 B	Biochemical oxygen demand	9/23/2002
Non-Potable Water	General Chemistry	SM 5210 B	Carbonaceous BOD (CBOD)	9/23/2002
Non-Potable Water	General Chemistry	SM 5540 C	Surfactants - MBAS	9/23/2002
Non-Potable Water	Metals	EPA 200.7	Aluminum	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Antimony	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Arsenic	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Barium	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Beryllium	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Boron	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Cadmium	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Calcium	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Chromium	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Cobalt	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Copper	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Iron	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Lead	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Magnesium	3/25/2003

Non-Potable Water	Metals	EPA 200.7	Manganese	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Molybdenum	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Nickel	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Potassium	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Selenium	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Silver	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Sodium	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Thallium	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Tin	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Titanium	7/23/2004
Non-Potable Water	Metals	EPA 200.7	Vanadium	3/25/2003
Non-Potable Water	Metals	EPA 200.7	Zinc	3/25/2003
Non-Potable Water	Metals	EPA 245.1	Mercury	9/23/2002
Non-Potable Water	Metals	EPA 279.2	Thallium	9/23/2002
Non-Potable Water	Metals	EPA 6010	Aluminum	7/1/2003
Non-Potable Water	Metals	EPA 6010	Antimony	7/1/2003
Non-Potable Water	Metals	EPA 6010	Arsenic	9/23/2002
Non-Potable Water	Metals	EPA 6010	Barium	7/1/2003
Non-Potable Water	Metals	EPA 6010	Beryllium	7/1/2003
Non-Potable Water	Metals	EPA 6010	Boron	7/1/2003
Non-Potable Water	Metals	EPA 6010	Cadmium	9/23/2002
Non-Potable Water	Metals	EPA 6010	Calcium	7/1/2003
Non-Potable Water	Metals	EPA 6010	Chromium	9/23/2002

Non-Potable Water	Metals	EPA 6010	Cobalt	7/1/2003
Non-Potable Water	Metals	EPA 6010	Copper	9/23/2002
Non-Potable Water	Metals	EPA 6010	Iron	7/1/2003
Non-Potable Water	Metals	EPA 6010	Lead	9/23/2002
Non-Potable Water	Metals	EPA 6010	Magnesium	7/1/2003
Non-Potable Water	Metals	EPA 6010	Manganese	7/1/2003
Non-Potable Water	Metals	EPA 6010	Molybdenum	9/23/2002
Non-Potable Water	Metals	EPA 6010	Nickel	9/23/2002
Non-Potable Water	Metals	EPA 6010	Potassium	9/23/2002
Non-Potable Water	Metals	EPA 6010	Selenium	9/23/2002
Non-Potable Water	Metals	EPA 6010	Silver	7/1/2003
Non-Potable Water	Metals	EPA 6010	Sodium	7/1/2003
Non-Potable Water	Metals	EPA 6010	Strontium	7/1/2003
Non-Potable Water	Metals	EPA 6010	Thallium	7/1/2003
Non-Potable Water	Metals	EPA 6010	Tin	7/1/2003
Non-Potable Water	Metals	EPA 6010	Titanium	7/1/2003
Non-Potable Water	Metals	EPA 6010	Vanadium	7/1/2003
Non-Potable Water	Metals	EPA 6010	Zinc	9/23/2002
Non-Potable Water	Metals	EPA 7470	Mercury	9/23/2002
Non-Potable Water	Metals	EPA 7841	Thallium	7/1/2003
Non-Potable Water	Microbiology	EPA 1600	Enterococci	9/23/2002
Non-Potable Water	Microbiology	SM 9215 B	Heterotrophic plate count	9/23/2002
Non-Potable Water	Microbiology	SM 9221 B	Total coliforms	9/23/2002

Non-Potable Water	Microbiology	SM 9221 E	Fecal coliforms	9/23/2002
Non-Potable Water	Microbiology	SM 9222 B	Total coliforms	9/23/2002
Non-Potable Water	Microbiology	SM 9222 D	Fecal coliforms	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	4 4`-DDD	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	4 4`-DDE	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	4 4`-DDT	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Aldrin	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Aroclor-1016 (PCB-1016)	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Aroclor-1221 (PCB-1221)	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Aroclor-1232 (PCB-1232)	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Aroclor-1242 (PCB-1242)	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Aroclor-1248 (PCB-1248)	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Aroclor-1254 (PCB-1254)	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Aroclor-1260 (PCB-1260)	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Chlordane (tech.)	9/23/2002

Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Dieldrin	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Endosulfan I	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Endosulfan II	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Endosulfan sulfate	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Endrin	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Endrin aldehyde	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Heptachlor	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Heptachlor epoxide	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	Toxaphene (Chlorinated camphene)	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	alpha-BHC (alpha-Hexachlorocyclohexane)	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	beta-BHC (beta-Hexachlorocyclohexane)	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	delta-BHC	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 608	gamma-BHC (Lindane gamma-Hexachlorocyclohexane)	8/19/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 615	2 4-D	9/23/2002

Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 615	Silvex (2 4 5-TP)	9/23/2002
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 631	Benomyl	11/12/2004
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	4 4`-DDD	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	4 4`-DDE	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	4 4`-DDT	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Aldrin	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Chlordane (tech.)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Dieldrin	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Endosulfan I	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Endosulfan II	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Endosulfan sulfate	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Endrin	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Endrin aldehyde	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Heptachlor	7/1/2003

Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Heptachlor epoxide	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Methoxychlor	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Toxaphene (Chlorinated camphene)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	alpha-BHC (alpha-Hexachlorocyclohexane)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	beta-BHC (beta-Hexachlorocyclohexane)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	delta-BHC	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	gamma-BHC (Lindane gamma-Hexachlorocyclohexane)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 3 3` 4 4` 5-Heptachlorobiphenyl (BZ 170)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 3 4 4` 5`-Hexachlorobiphenyl (BZ 138)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 3 5`-Tetrachlorobiphenyl (BZ 44)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 4 4` 5 5`-Hexachlorobiphenyl (BZ 153)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 4 5 5`-Pentachlorobiphenyl (BZ 101)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 4 5`-Tetrachlorobiphenyl (BZ 49)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 5 5`-Tetrachlorobiphenyl (BZ 52)	7/1/2003

Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 5-Trichlorobiphenyl (BZ 18)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	2 3` 4 4`-Tetrachlorobiphenyl (BZ 66)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1016 (PCB-1016)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1221 (PCB-1221)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1232 (PCB-1232)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1248 (PCB-1248)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1254 (PCB-1254)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1260 (PCB-1260)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Azinphos-methyl (Guthion)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Chlorpyrifos	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Coumaphos	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Demeton-s	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Diazinon	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Dichlorovos (DDVP Dichlorvos)	7/1/2003

Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Dimethoate	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Ethion	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Ethoprop	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Fensulfothion	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Malathion	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Mevinphos	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Naled	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Parathion ethyl	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Phorate	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8141	Ronnel	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8151	2 4 5-T	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8151	2 4-D	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8151	2 4-DB	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8151	Dalapon	7/1/2003

Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8151	Dicamba	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8151	Dichloroprop (Dichlorprop)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8151	Dinoseb (2-sec-butyl-4 6-dinitrophenol DNBP)	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8151	MCPA	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8151	MCPP	7/1/2003
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8151	Silvex (2 4 5-TP)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 624	1 1 1-Trichloroethane	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	1 1 2 2-Tetrachloroethane	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	1 1 2-Trichloroethane	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	1 1-Dichloroethane	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	1 1-Dichloroethylene	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	1 2-Dichlorobenzene	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	1 2-Dichloroethane	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	1 2-Dichloropropane	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	1 3-Dichlorobenzene	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	1 4-Dichlorobenzene	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	2-Chloroethyl vinyl ether	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Acrolein (Propenal)	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Acrylonitrile	9/23/2002

Non-Potable Water	Volatile Organics	EPA 624	Benzene	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Bromodichloromethane	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Bromoform	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Carbon tetrachloride	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Chlorobenzene	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Chloroethane	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Chloroform	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Dibromochloromethane	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Ethylbenzene	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Methyl bromide (Bromomethane)	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Methyl chloride (Chloromethane)	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Methylene chloride	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Tetrachloroethylene (Perchloroethylene)	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Toluene	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Trichloroethene (Trichloroethylene)	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Trichlorofluoromethane	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Vinyl chloride	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	Xylene (total)	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	cis-1 3-Dichloropropene	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	trans-1 2-Dichloroethylene	9/23/2002
Non-Potable Water	Volatile Organics	EPA 624	trans-1 3-Dichloropropylene	9/23/2002
Non-Potable Water	Volatile Organics	EPA 8011	1 2-Dibromo-3-chloropropane (DBCP)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8011	1 2-Dibromoethane (EDB Ethylene dibromide)	7/1/2003

Non-Potable Water	Volatile Organics	EPA 8260	1 1 1 2-Tetrachloroethane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 1 1-Trichloroethane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 1 2 2-Tetrachloroethane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 1 2-Trichloroethane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 1-Dichloroethane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 1-Dichloroethylene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 1-Dichloropropene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 2 3-Trichlorobenzene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 2 3-Trichloropropane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 2 4-Trichlorobenzene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 2 4-Trimethylbenzene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 2-Dibromo-3-chloropropane (DBCP)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 2-Dibromoethane (EDB Ethylene dibromide)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 2-Dichlorobenzene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 2-Dichloroethane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 2-Dichloropropane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 3 5-Trimethylbenzene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 3-Dichlorobenzene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 3-Dichloropropane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	1 4-Dichlorobenzene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	2 2-Dichloropropane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	2-Butanone (Methyl ethyl ketone MEK)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	2-Chloroethyl vinyl ether	7/1/2003

Non-Potable Water	Volatile Organics	EPA 8260	2-Chlorotoluene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	2-Hexanone	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	4-Chlorotoluene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	4-Methyl-2-pentanone (MIBK)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Acetone	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Acetonitrile	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Allyl chloride (3-Chloropropene)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Benzene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Bromobenzene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Bromochloromethane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Bromodichloromethane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Bromoform	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Carbon disulfide	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Carbon tetrachloride	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Chlorobenzene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Chloroethane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Chloroform	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Chloroprene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Dibromochloromethane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Dibromomethane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Dichlorodifluoromethane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Ethyl methacrylate	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Ethylbenzene	7/1/2003

Non-Potable Water	Volatile Organics	EPA 8260	Hexachlorobutadiene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Iodomethane (Methyl iodide)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Isobutyl alcohol (2-Methyl-1-propanol)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Isopropylbenzene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Methacrylonitrile	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Methyl bromide (Bromomethane)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Methyl chloride (Chloromethane)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Methyl methacrylate	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Methyl tert-butyl ether (MTBE)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Methylene chloride	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Naphthalene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Propionitrile (Ethyl cyanide)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Styrene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Tetrachloroethylene (Perchloroethylene)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Toluene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Trichloroethene (Trichloroethylene)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Trichlorofluoromethane	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Vinyl acetate	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Vinyl chloride	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	Xylene (total)	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	cis-1 2-Dichloroethylene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	cis-1 3-Dichloropropene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	n-Butylbenzene	7/1/2003

Non-Potable Water	Volatile Organics	EPA 8260	n-Propylbenzene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	p-Isopropyltoluene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	sec-Butylbenzene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	tert-Butylbenzene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	trans-1 2-Dichloroethylene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	trans-1 3-Dichloropropylene	7/1/2003
Non-Potable Water	Volatile Organics	EPA 8260	trans-1 4-Dichloro-2-butene	7/1/2003
Solids	Extractable Organics	EPA 8270	1 2 4-Trichlorobenzene	9/23/2002
Solids	Extractable Organics	EPA 8270	1 2-Dichlorobenzene	9/23/2002
Solids	Extractable Organics	EPA 8270	1 3-Dichlorobenzene	9/23/2002
Solids	Extractable Organics	EPA 8270	1 4-Dichlorobenzene	9/23/2002
Solids	Extractable Organics	EPA 8270	2 4 5-Trichlorophenol	9/23/2002
Solids	Extractable Organics	EPA 8270	2 4 6-Trichlorophenol	9/23/2002
Solids	Extractable Organics	EPA 8270	2 4-Dichlorophenol	9/23/2002
Solids	Extractable Organics	EPA 8270	2 4-Dimethylphenol	9/23/2002
Solids	Extractable Organics	EPA 8270	2 4-Dinitrophenol	9/23/2002
Solids	Extractable Organics	EPA 8270	2 4-Dinitrotoluene (2 4-DNT)	9/23/2002
Solids	Extractable Organics	EPA 8270	2 6-Dinitrotoluene (2 6-DNT)	9/23/2002
Solids	Extractable Organics	EPA 8270	2-Chloronaphthalene	9/23/2002
Solids	Extractable Organics	EPA 8270	2-Chlorophenol	9/23/2002
Solids	Extractable Organics	EPA 8270	2-Methyl-4 6-dinitrophenol	9/23/2002
Solids	Extractable Organics	EPA 8270	2-Methylnaphthalene	9/23/2002
Solids	Extractable Organics	EPA 8270	2-Methylphenol (o-Cresol)	9/23/2002

Solids	Extractable Organics	EPA 8270	2-Nitroaniline	9/23/2002
Solids	Extractable Organics	EPA 8270	2-Nitrophenol	9/23/2002
Solids	Extractable Organics	EPA 8270	3 3`-Dichlorobenzidine	9/23/2002
Solids	Extractable Organics	EPA 8270	3-Nitroaniline	9/23/2002
Solids	Extractable Organics	EPA 8270	4-Bromophenyl phenyl ether	1/7/2003
Solids	Extractable Organics	EPA 8270	4-Chloro-3-methylphenol	9/23/2002
Solids	Extractable Organics	EPA 8270	4-Chlorophenyl phenylether	9/23/2002
Solids	Extractable Organics	EPA 8270	4-Methylphenol (p-Cresol)	9/23/2002
Solids	Extractable Organics	EPA 8270	4-Nitroaniline	9/23/2002
Solids	Extractable Organics	EPA 8270	4-Nitrophenol	9/23/2002
Solids	Extractable Organics	EPA 8270	Acenaphthene	9/23/2002
Solids	Extractable Organics	EPA 8270	Acenaphthylene	9/23/2002
Solids	Extractable Organics	EPA 8270	Aniline	9/23/2002
Solids	Extractable Organics	EPA 8270	Anthracene	9/23/2002
Solids	Extractable Organics	EPA 8270	Benzidine	9/23/2002
Solids	Extractable Organics	EPA 8270	Benzo(a)anthracene	9/23/2002
Solids	Extractable Organics	EPA 8270	Benzo(a)pyrene	4/7/2003
Solids	Extractable Organics	EPA 8270	Benzo(b)fluoranthene	9/23/2002
Solids	Extractable Organics	EPA 8270	Benzo(g h i)perylene	9/23/2002
Solids	Extractable Organics	EPA 8270	Benzo(k)fluoranthene	9/23/2002
Solids	Extractable Organics	EPA 8270	Benzoic acid	9/23/2002
Solids	Extractable Organics	EPA 8270	Benzyl alcohol	9/23/2002
Solids	Extractable Organics	EPA 8270	Butyl benzyl phthalate	9/23/2002

Solids	Extractable Organics	EPA 8270	Chrysene	9/23/2002
Solids	Extractable Organics	EPA 8270	Di-n-butyl phthalate	9/23/2002
Solids	Extractable Organics	EPA 8270	Di-n-octyl phthalate	9/23/2002
Solids	Extractable Organics	EPA 8270	Dibenz(a h) anthracene	9/23/2002
Solids	Extractable Organics	EPA 8270	Dibenzofuran	9/23/2002
Solids	Extractable Organics	EPA 8270	Diethyl phthalate	9/23/2002
Solids	Extractable Organics	EPA 8270	Dimethyl phthalate	9/23/2002
Solids	Extractable Organics	EPA 8270	Fluoranthene	9/23/2002
Solids	Extractable Organics	EPA 8270	Fluorene	9/23/2002
Solids	Extractable Organics	EPA 8270	Hexachlorobenzene	9/23/2002
Solids	Extractable Organics	EPA 8270	Hexachlorobutadiene	9/23/2002
Solids	Extractable Organics	EPA 8270	Hexachlorocyclopentadiene	9/23/2002
Solids	Extractable Organics	EPA 8270	Hexachloroethane	9/23/2002
Solids	Extractable Organics	EPA 8270	Indeno(1 2 3-cd)pyrene	9/23/2002
Solids	Extractable Organics	EPA 8270	Isophorone	9/23/2002
Solids	Extractable Organics	EPA 8270	Naphthalene	9/23/2002
Solids	Extractable Organics	EPA 8270	Nitrobenzene	9/23/2002
Solids	Extractable Organics	EPA 8270	Pentachlorophenol	9/23/2002
Solids	Extractable Organics	EPA 8270	Phenanthrene	9/23/2002
Solids	Extractable Organics	EPA 8270	Phenol	9/23/2002
Solids	Extractable Organics	EPA 8270	Pyrene	9/23/2002
Solids	Extractable Organics	EPA 8270	Pyridine	9/23/2002
Solids	Extractable Organics	EPA 8270	bis(2-Chloroethoxy)methane	1/7/2003

Solids	Extractable Organics	EPA 8270	bis(2-Chloroethyl) ether	9/23/2002
Solids	Extractable Organics	EPA 8270	bis(2-Chloroisopropyl) ether (2 2`-Oxybis(1-chloropropane))	1/7/2003
Solids	Extractable Organics	EPA 8270	bis(2-Ethylhexyl) phthalate (DEHP)	9/23/2002
Solids	Extractable Organics	EPA 8270	n-Nitrosodi-n-propylamine	9/23/2002
Solids	Extractable Organics	EPA 8270	n-Nitrosodimethylamine	9/23/2002
Solids	Extractable Organics	EPA 8270	n-Nitrosodiphenylamine	9/23/2002
Solids	Extractable Organics	FL-PRO	Total Petroleum Hydrocarbons (TPH)	11/12/2004
Solids	General Chemistry	EPA 1311	Toxicity Characteristic Leaching Procedure	9/23/2002
Solids	General Chemistry	EPA 350.1	Ammonia as N	11/12/2004
Solids	General Chemistry	EPA 351.2	Kjeldahl nitrogen - total	11/12/2004
Solids	General Chemistry	EPA 353.2	Total nitrate-nitrite	11/12/2004
Solids	General Chemistry	EPA 365.4	Phosphorus total	11/12/2004
Solids	General Chemistry	EPA 9014	Total cyanide	9/23/2002
Solids	General Chemistry	EPA 9040	pH	9/23/2002
Solids	General Chemistry	EPA 9045	pH	9/23/2002
Solids	General Chemistry	EPA 9060	Total organic carbon	9/23/2002
Solids	General Chemistry	SM 2540 G	Residue-total	11/12/2004
Solids	General Chemistry	SM 2540 G	Residue-volatile	11/12/2004
Solids	General Chemistry	SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	11/12/2004
Solids	Metals	EPA 6010	Aluminum	9/23/2002
Solids	Metals	EPA 6010	Antimony	9/23/2002
Solids	Metals	EPA 6010	Arsenic	9/23/2002

Solids	Metals	EPA 6010	Barium	9/23/2002
Solids	Metals	EPA 6010	Beryllium	9/23/2002
Solids	Metals	EPA 6010	Boron	9/23/2002
Solids	Metals	EPA 6010	Cadmium	9/23/2002
Solids	Metals	EPA 6010	Calcium	9/23/2002
Solids	Metals	EPA 6010	Chromium	9/23/2002
Solids	Metals	EPA 6010	Cobalt	9/23/2002
Solids	Metals	EPA 6010	Copper	9/23/2002
Solids	Metals	EPA 6010	Iron	9/23/2002
Solids	Metals	EPA 6010	Lead	9/23/2002
Solids	Metals	EPA 6010	Magnesium	9/23/2002
Solids	Metals	EPA 6010	Manganese	9/23/2002
Solids	Metals	EPA 6010	Molybdenum	9/23/2002
Solids	Metals	EPA 6010	Nickel	9/23/2002
Solids	Metals	EPA 6010	Potassium	9/23/2002
Solids	Metals	EPA 6010	Selenium	9/23/2002
Solids	Metals	EPA 6010	Silver	9/23/2002
Solids	Metals	EPA 6010	Sodium	9/23/2002
Solids	Metals	EPA 6010	Strontium	9/23/2002
Solids	Metals	EPA 6010	Thallium	9/23/2002
Solids	Metals	EPA 6010	Tin	9/23/2002
Solids	Metals	EPA 6010	Titanium	9/23/2002
Solids	Metals	EPA 6010	Vanadium	9/23/2002

Solids	Metals	EPA 6010	Zinc	9/23/2002
Solids	Metals	EPA 7470	Mercury	9/23/2002
Solids	Metals	EPA 7841	Thallium	9/23/2002
Solids	Microbiology	SM 9221 E	Fecal coliforms	11/12/2004
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	4 4`-DDD	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	4 4`-DDE	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	4 4`-DDT	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Aldrin	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Chlordane (tech.)	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Dieldrin	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Endosulfan I	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Endosulfan II	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Endosulfan sulfate	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Endrin	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Endrin aldehyde	9/23/2002
Solids	Pesticides-Herbicides-	EPA 8081	Heptachlor	9/23/2002

	PCB`s			
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Heptachlor epoxide	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Methoxychlor	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Toxaphene (Chlorinated camphene)	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	alpha-BHC (alpha-Hexachlorocyclohexane)	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	beta-BHC (beta-Hexachlorocyclohexane)	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	delta-BHC	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	gamma-BHC (Lindane gamma-Hexachlorocyclohexane)	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 3 3` 4 4` 5-Heptachlorobiphenyl (BZ 170)	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 3 4 4` 5`-Hexachlorobiphenyl (BZ 138)	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 3 4` 5 5` 6-Heptachlorobiphenyl (BZ 187)	5/14/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 3 5`-Tetrachlorobiphenyl (BZ 44)	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 4 4` 5 5`-Hexachlorobiphenyl (BZ 153)	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 4 5 5`-Pentachlorobiphenyl (BZ 101)	9/23/2002
Solids	Pesticides-Herbicides-	EPA 8082	2 2` 4 5`-Tetrachlorobiphenyl (BZ 49)	9/23/2002

	PCB`s			
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 5 5`-Tetrachlorobiphenyl (BZ 52)	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	2 2` 5-Trichlorobiphenyl (BZ 18)	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	2 3` 4 4`-Tetrachlorobiphenyl (BZ 66)	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1016 (PCB-1016)	5/14/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1221 (PCB-1221)	5/14/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1232 (PCB-1232)	5/14/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1242 (PCB-1242)	7/23/2004
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1248 (PCB-1248)	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1254 (PCB-1254)	5/14/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1260 (PCB-1260)	5/14/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8151	2 4 5-T	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8151	2 4-D	9/23/2002
Solids	Pesticides-Herbicides-PCB`s	EPA 8151	Dicamba	9/23/2002
Solids	Pesticides-Herbicides-	EPA 8151	Silvex (2 4 5-TP)	9/23/2002

	PCB`s			
Solids	Pesticides-Herbicides-PCB`s	EPA 8321	Benomyl	11/12/2004
Solids	Volatile Organics	EPA 8260	1 1 1 2-Tetrachloroethane	9/23/2002
Solids	Volatile Organics	EPA 8260	1 1 1-Trichloroethane	9/23/2002
Solids	Volatile Organics	EPA 8260	1 1 2 2-Tetrachloroethane	9/23/2002
Solids	Volatile Organics	EPA 8260	1 1 2-Trichloroethane	9/23/2002
Solids	Volatile Organics	EPA 8260	1 1-Dichloroethane	9/23/2002
Solids	Volatile Organics	EPA 8260	1 1-Dichloroethylene	9/23/2002
Solids	Volatile Organics	EPA 8260	1 1-Dichloropropene	9/23/2002
Solids	Volatile Organics	EPA 8260	1 2 3-Trichlorobenzene	9/23/2002
Solids	Volatile Organics	EPA 8260	1 2 3-Trichloropropane	9/23/2002
Solids	Volatile Organics	EPA 8260	1 2 4-Trichlorobenzene	9/23/2002
Solids	Volatile Organics	EPA 8260	1 2 4-Trimethylbenzene	9/23/2002
Solids	Volatile Organics	EPA 8260	1 2-Dibromo-3-chloropropane (DBCP)	9/23/2002
Solids	Volatile Organics	EPA 8260	1 2-Dibromoethane (EDB Ethylene dibromide)	9/23/2002
Solids	Volatile Organics	EPA 8260	1 2-Dichlorobenzene	9/23/2002
Solids	Volatile Organics	EPA 8260	1 2-Dichloroethane	9/23/2002
Solids	Volatile Organics	EPA 8260	1 2-Dichloropropane	9/23/2002
Solids	Volatile Organics	EPA 8260	1 3 5-Trimethylbenzene	9/23/2002
Solids	Volatile Organics	EPA 8260	1 3-Dichlorobenzene	9/23/2002
Solids	Volatile Organics	EPA 8260	1 3-Dichloropropane	9/23/2002
Solids	Volatile Organics	EPA 8260	1 4-Dichlorobenzene	9/23/2002

Solids	Volatile Organics	EPA 8260	2 2-Dichloropropane	9/23/2002
Solids	Volatile Organics	EPA 8260	2-Butanone (Methyl ethyl ketone MEK)	9/23/2002
Solids	Volatile Organics	EPA 8260	2-Chloroethyl vinyl ether	9/23/2002
Solids	Volatile Organics	EPA 8260	2-Chlorotoluene	9/23/2002
Solids	Volatile Organics	EPA 8260	2-Hexanone	9/23/2002
Solids	Volatile Organics	EPA 8260	4-Chlorotoluene	9/23/2002
Solids	Volatile Organics	EPA 8260	4-Methyl-2-pentanone (MIBK)	1/7/2003
Solids	Volatile Organics	EPA 8260	Acetone	9/23/2002
Solids	Volatile Organics	EPA 8260	Benzene	9/23/2002
Solids	Volatile Organics	EPA 8260	Bromobenzene	9/23/2002
Solids	Volatile Organics	EPA 8260	Bromochloromethane	9/23/2002
Solids	Volatile Organics	EPA 8260	Bromodichloromethane	9/23/2002
Solids	Volatile Organics	EPA 8260	Bromoform	1/7/2003
Solids	Volatile Organics	EPA 8260	Carbon disulfide	9/23/2002
Solids	Volatile Organics	EPA 8260	Carbon tetrachloride	9/23/2002
Solids	Volatile Organics	EPA 8260	Chlorobenzene	9/23/2002
Solids	Volatile Organics	EPA 8260	Chloroethane	9/23/2002
Solids	Volatile Organics	EPA 8260	Chloroform	9/23/2002
Solids	Volatile Organics	EPA 8260	Dibromochloromethane	1/7/2003
Solids	Volatile Organics	EPA 8260	Dibromomethane	9/23/2002
Solids	Volatile Organics	EPA 8260	Dichlorodifluoromethane	9/23/2002
Solids	Volatile Organics	EPA 8260	Ethyl methacrylate	9/23/2002
Solids	Volatile Organics	EPA 8260	Ethylbenzene	1/7/2003

Solids	Volatile Organics	EPA 8260	Hexachlorobutadiene	9/23/2002
Solids	Volatile Organics	EPA 8260	Iodomethane (Methyl iodide)	9/23/2002
Solids	Volatile Organics	EPA 8260	Isobutyl alcohol (2-Methyl-1-propanol)	9/23/2002
Solids	Volatile Organics	EPA 8260	Isopropylbenzene	9/23/2002
Solids	Volatile Organics	EPA 8260	Methyl bromide (Bromomethane)	9/23/2002
Solids	Volatile Organics	EPA 8260	Methyl chloride (Chloromethane)	9/23/2002
Solids	Volatile Organics	EPA 8260	Methyl tert-butyl ether (MTBE)	9/23/2002
Solids	Volatile Organics	EPA 8260	Methylene chloride	9/23/2002
Solids	Volatile Organics	EPA 8260	Naphthalene	9/23/2002
Solids	Volatile Organics	EPA 8260	Styrene	9/23/2002
Solids	Volatile Organics	EPA 8260	Tetrachloroethylene (Perchloroethylene)	9/23/2002
Solids	Volatile Organics	EPA 8260	Toluene	9/23/2002
Solids	Volatile Organics	EPA 8260	Trichloroethene (Trichloroethylene)	9/23/2002
Solids	Volatile Organics	EPA 8260	Trichlorofluoromethane	9/23/2002
Solids	Volatile Organics	EPA 8260	Vinyl chloride	9/23/2002
Solids	Volatile Organics	EPA 8260	Xylene (total)	9/23/2002
Solids	Volatile Organics	EPA 8260	cis-1 2-Dichloroethylene	9/23/2002
Solids	Volatile Organics	EPA 8260	cis-1 3-Dichloropropene	9/23/2002
Solids	Volatile Organics	EPA 8260	n-Butylbenzene	9/23/2002
Solids	Volatile Organics	EPA 8260	n-Propylbenzene	9/23/2002
Solids	Volatile Organics	EPA 8260	p-Isopropyltoluene	9/23/2002
Solids	Volatile Organics	EPA 8260	sec-Butylbenzene	9/23/2002
Solids	Volatile Organics	EPA 8260	tert-Butylbenzene	9/23/2002

Solids	Volatile Organics	EPA 8260	trans-1 2-Dichloroethylene	9/23/2002
Solids	Volatile Organics	EPA 8260	trans-1 3-Dichloropropylene	9/23/2002

Appendix B

JEL Certification Documentation

FLORIDA DEPARTMENT OF HEALTH

State of Florida
Department of Health, Bureau of Laboratories

This is to certify that

E86546
JUPITER ENVIRONMENTAL LABORATORIES, INC.
150 SOUTH OLD DIXIE HWY
JUPITER, FL 33458

has complied with Florida Administrative Code 64E-1,
for the examination of Environmental samples in the following categories

NON-POTABLE WATER - EXTRACTABLE ORGANICS, NON-POTABLE WATER - GENERAL CHEMISTRY, NON-POTABLE WATER - METALS, NON-POTABLE WATER - PESTICIDES-HERBICIDES-PCB'S, NON-POTABLE WATER - VOLATILE ORGANICS, SOLID AND CHEMICAL MATERIALS - EXTRACTABLE ORGANICS, SOLID AND CHEMICAL MATERIALS - GENERAL CHEMISTRY, SOLID AND CHEMICAL MATERIALS - METALS, SOLID AND CHEMICAL MATERIALS - PESTICIDES-HERBICIDES-PCB'S, SOLID AND CHEMICAL MATERIALS - VOLATILE ORGANICS

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

EFFECTIVE December 09, 2005 THROUGH June 30, 2006

Ming S. Chan, Ph.D.
Bureau Chief, Bureau of Laboratories
Florida Department of Health
DH Form 1897, 7/04
NON-TRANSFERABLE E86546-03-12/9/2005

Laboratories Certified Under NELAP by the Florida Department of Health
Listing of Organization FOAs Query Results
Database Version:
4/1/2006 5:30:16 AM

Laboratory Name Jupiter Environmental Laboratories Inc.

DOH ID: E86546

Matrix	Category	Method	Analyte	Certification Date
Non-Potable Water	Extractable Organics	EPA 8270	1 2 4 5-Tetrachlorobenzene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	1 2 4-Trichlorobenzene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	1 2-Dichlorobenzene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	1 2-Dinitrobenzene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	1 3 5-Trinitrobenzene (1 3 5-TNB)	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	1 3-Dichlorobenzene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	1 3-Dinitrobenzene (1 3-DNB)	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	1 4-Dichlorobenzene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	1 4-Dinitrobenzene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	1 4-Naphthoquinone	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	1 4-Phenylenediamine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	1-Naphthylamine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2 3 4 6-Tetrachlorophenol	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2 4 5-Trichlorophenol	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2 4 6-Trichlorophenol	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2 4-Dichlorophenol	5/4/2005

Non-Potable Water	Extractable Organics	EPA 8270	2 4-Dimethylphenol	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2 4-Dinitrophenol	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2 4-Dinitrotoluene (2 4-DNT)	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2 6-Dichlorophenol	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2 6-Dinitrotoluene (2 6-DNT)	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2-Acetylaminofluorene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2-Chloronaphthalene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2-Chlorophenol	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2-Methyl-4 6-dinitrophenol	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2-Methylnaphthalene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2-Methylphenol (o-Cresol)	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2-Nitroaniline	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2-Nitrophenol	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	2-Picoline (2-Methylpyridine)	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	3 3`-Dichlorobenzidine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	3 3`-Dimethylbenzidine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	3-Methylcholanthrene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	3-Methylphenol (m-Cresol)	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	3-Nitroaniline	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	4-Aminobiphenyl	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	4-Bromophenyl phenyl ether	5/4/2005

Non-Potable Water	Extractable Organics	EPA 8270	4-Chloro-3-methylphenol	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	4-Chloroaniline	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	4-Chlorophenyl phenylether	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	4-Dimethyl aminoazobenzene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	4-Methylphenol (p-Cresol)	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	4-Nitroaniline	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	4-Nitrophenol	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	5-Nitro-o-toluidine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	7 12-Dimethylbenz(a) anthracene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Acenaphthene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Acenaphthylene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Acetophenone	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Aniline	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Anthracene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Aramite	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Benzo(a)anthracene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Benzo(a)pyrene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Benzo(b)fluoranthene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Benzo(g h i)perylene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Benzo(k)fluoranthene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Benzyl alcohol	5/4/2005

Non-Potable Water	Extractable Organics	EPA 8270	Butyl benzyl phthalate	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Chlorobenzilate	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Chrysene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Di-n-butyl phthalate	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Di-n-octyl phthalate	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Dibenz(a h) anthracene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Dibenzofuran	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Diethyl phthalate	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Dimethyl phthalate	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Diphenylamine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Ethyl methanesulfonate	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Fluoranthene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Fluorene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Hexachlorobenzene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Hexachlorobutadiene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Hexachlorocyclopentadiene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Hexachloroethane	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Hexachlorophene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Hexachloropropene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Indeno(1 2 3-cd)pyrene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Isophorone	5/4/2005

Non-Potable Water	Extractable Organics	EPA 8270	Isosafrole	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Methapyrilene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Methyl methanesulfonate	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Naphthalene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Nitrobenzene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Nitroquinoline-1-oxide	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Pentachloronitrobenzene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Pentachlorophenol	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Phenacetin	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Phenanthrene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Phenol	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Pronamide (Kerb)	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Pyrene	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Pyridine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	Safrole	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	a-a-Dimethylphenethylamine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	beta-Naphthylamine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	bis(2-Chloroethoxy)methane	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	bis(2-Chloroethyl) ether	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	bis(2-Chloroisopropyl) ether (2 2`-Oxybis(1-chloropropane))	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	bis(2-Ethylhexyl) phthalate (DEHP)	5/4/2005

Non-Potable Water	Extractable Organics	EPA 8270	n-Nitroso-di-n-butylamine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	n-Nitrosodi-n-propylamine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	n-Nitrosodiethylamine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	n-Nitrosodimethylamine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	n-Nitrosodiphenylamine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	n-Nitrosomethylethylamine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	n-Nitrosomorpholine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	n-Nitrosopiperidine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	n-Nitrosopyrrolidine	5/4/2005
Non-Potable Water	Extractable Organics	EPA 8270	o-Toluidine	5/4/2005
Non-Potable Water	Extractable Organics	FL-PRO	Total Petroleum Hydrocarbons (TPH)	10/18/2005
Non-Potable Water	General Chemistry	EPA 150.1	pH	10/18/2005
Non-Potable Water	General Chemistry	EPA 310.2	Alkalinity as CaCO3	10/18/2005
Non-Potable Water	General Chemistry	EPA 325.2	Chloride	10/18/2005
Non-Potable Water	General Chemistry	EPA 340.1	Fluoride	10/18/2005
Non-Potable Water	General Chemistry	EPA 350.1	Ammonia as N	10/18/2005
Non-Potable Water	General Chemistry	EPA 353.1	Nitrate as N	10/18/2005
Non-Potable Water	General Chemistry	EPA 353.1	Total nitrate-nitrite	10/18/2005
Non-Potable Water	General Chemistry	EPA 354.1	Nitrite as N	10/18/2005
Non-Potable Water	General Chemistry	EPA 365.3	Orthophosphate as P	10/18/2005
Non-Potable Water	General Chemistry	EPA 375.4	Sulfate	10/18/2005

Non-Potable Water	General Chemistry	EPA 420.1	Total phenolics	10/18/2005
Non-Potable Water	General Chemistry	EPA 7196	Chromium VI	10/18/2005
Non-Potable Water	Metals	EPA 1631	Mercury	10/18/2005
Non-Potable Water	Metals	EPA 200.8	Aluminum	5/4/2005
Non-Potable Water	Metals	EPA 200.8	Antimony	2/26/2003
Non-Potable Water	Metals	EPA 200.8	Arsenic	10/15/2003
Non-Potable Water	Metals	EPA 200.8	Barium	5/4/2005
Non-Potable Water	Metals	EPA 200.8	Beryllium	10/15/2003
Non-Potable Water	Metals	EPA 200.8	Cadmium	10/15/2003
Non-Potable Water	Metals	EPA 200.8	Chromium	5/4/2005
Non-Potable Water	Metals	EPA 200.8	Cobalt	5/4/2005
Non-Potable Water	Metals	EPA 200.8	Copper	10/15/2003
Non-Potable Water	Metals	EPA 200.8	Lead	10/15/2003
Non-Potable Water	Metals	EPA 200.8	Manganese	10/15/2003
Non-Potable Water	Metals	EPA 200.8	Mercury	10/15/2003
Non-Potable Water	Metals	EPA 200.8	Molybdenum	10/15/2003
Non-Potable Water	Metals	EPA 200.8	Nickel	10/15/2003
Non-Potable Water	Metals	EPA 200.8	Selenium	10/15/2003
Non-Potable Water	Metals	EPA 200.8	Silver	10/15/2003
Non-Potable Water	Metals	EPA 200.8	Thallium	5/4/2005
Non-Potable Water	Metals	EPA 200.8	Thorium	5/4/2005

Non-Potable Water	Metals	EPA 200.8	Uranium	5/4/2005
Non-Potable Water	Metals	EPA 200.8	Vanadium	2/26/2003
Non-Potable Water	Metals	EPA 200.8	Zinc	5/4/2005
Non-Potable Water	Metals	JEL ICP-002	Phosphorus total	10/29/2004
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	4 4`-DDD	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	4 4`-DDE	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	4 4`-DDT	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Aldrin	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Chlordane (tech.)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Dieldrin	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Endosulfan I	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Endosulfan II	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Endosulfan sulfate	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Endrin	5/4/2005

Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Endrin aldehyde	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Endrin ketone	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Heptachlor	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Heptachlor epoxide	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Methoxychlor	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	Toxaphene (Chlorinated camphene)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	alpha-BHC (alpha-Hexachlorocyclohexane)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	alpha-Chlordane	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	beta-BHC (beta-Hexachlorocyclohexane)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	delta-BHC	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	gamma-BHC (Lindane gamma-Hexachlorocyclohexane)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8081	gamma-Chlordane	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1016 (PCB-1016)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-	EPA 8082	Aroclor-1221 (PCB-1221)	5/4/2005

	PCB`s			
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1232 (PCB-1232)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1242 (PCB-1242)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1248 (PCB-1248)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1254 (PCB-1254)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1260 (PCB-1260)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	4 4`-DDD	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	4 4`-DDE	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	4 4`-DDT	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Aldrin	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Azinphos-methyl (Guthion)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Carbophenothion	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Chlorfenvinphos	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Coumaphos	5/4/2005

Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Demeton-o	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Demeton-s	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Diallate	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Dichlorovos (DDVP Dichlorvos)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Dicrotophos	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Dieldrin	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Dimethoate	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Dinoseb (2-sec-butyl-4 6-dinitrophenol DNBP)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Dioxathion	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Disulfoton	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	EPN	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Endosulfan I	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Endosulfan II	5/4/2005
Non-Potable Water	Pesticides-Herbicides-	EPA 8270	Endosulfan sulfate	5/4/2005

	PCB`s			
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Endrin	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Endrin aldehyde	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Ethion	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Famphur	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Fensulfothion	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Fenthion	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Heptachlor	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Heptachlor epoxide	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Isodrin	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Kepone	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Leptophos	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Malathion	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Methoxychlor	5/4/2005

Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Methyl parathion (Parathion methyl)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Mevinphos	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Monocrotophos	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Naled	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Parathion ethyl	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Phorate	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Phosmet (Imidan)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Phosphamidon	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Sulfotepp	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Terbufos	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Tetrachlorvinphos (Stirophos Gardona)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	Thionazin (Zinophos)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	alpha-BHC (alpha-Hexachlorocyclohexane)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-	EPA 8270	beta-BHC (beta-Hexachlorocyclohexane)	5/4/2005

	PCB`s			
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	delta-BHC	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	gamma-BHC (Lindane gamma-Hexachlorocyclohexane)	5/4/2005
Non-Potable Water	Pesticides-Herbicides-PCB`s	EPA 8270	o o o-Triethyl phosphorothioate	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 1 1 2-Tetrachloroethane	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 1 1-Trichloroethane	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 1 2 2-Tetrachloroethane	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 1 2-Trichloroethane	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 1-Dichloroethane	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 1-Dichloroethylene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 1-Dichloropropene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 2 3-Trichlorobenzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 2 3-Trichloropropane	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 2 4-Trichlorobenzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 2 4-Trimethylbenzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 2-Dibromo-3-chloropropane (DBCP)	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 2-Dibromoethane (EDB Ethylene dibromide)	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 2-Dichlorobenzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 2-Dichloroethane	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 2-Dichloropropane	5/4/2005

Non-Potable Water	Volatile Organics	EPA 8260	1 3 5-Trimethylbenzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 3-Dichlorobenzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 3-Dichloropropane	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	1 4-Dichlorobenzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	2 2-Dichloropropane	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	2-Butanone (Methyl ethyl ketone MEK)	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	2-Chloroethyl vinyl ether	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	2-Chlorotoluene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	2-Hexanone	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	4-Chlorotoluene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	4-Methyl-2-pentanone (MIBK)	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Acetone	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Acrolein (Propenal)	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Acrylonitrile	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Benzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Bromobenzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Bromochloromethane	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Bromodichloromethane	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Bromoform	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Carbon disulfide	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Carbon tetrachloride	5/4/2005

Non-Potable Water	Volatile Organics	EPA 8260	Chlorobenzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Chloroethane	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Chloroform	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Dibromochloromethane	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Dibromomethane	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Dichlorodifluoromethane	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Ethyl methacrylate	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Ethylbenzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Hexachlorobutadiene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Iodomethane (Methyl iodide)	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Isopropylbenzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Methyl bromide (Bromomethane)	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Methyl chloride (Chloromethane)	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Methyl tert-butyl ether (MTBE)	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Methylene chloride	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Naphthalene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Styrene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Tetrachloroethylene (Perchloroethylene)	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Toluene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Trichloroethene (Trichloroethylene)	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Trichlorofluoromethane	5/4/2005

Non-Potable Water	Volatile Organics	EPA 8260	Vinyl acetate	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Vinyl chloride	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	Xylene (total)	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	cis-1 2-Dichloroethylene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	cis-1 3-Dichloropropene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	cis-1 4-Dichloro-2-butene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	m-Xylene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	n-Butylbenzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	n-Propylbenzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	o-Xylene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	p-Isopropyltoluene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	p-Xylene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	sec-Butylbenzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	tert-Butylbenzene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	trans-1 2-Dichloroethylene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	trans-1 3-Dichloropropylene	5/4/2005
Non-Potable Water	Volatile Organics	EPA 8260	trans-1 4-Dichloro-2-butene	5/4/2005
Solids	Extractable Organics	EPA 8270	1 2 4 5-Tetrachlorobenzene	5/4/2005
Solids	Extractable Organics	EPA 8270	1 2 4-Trichlorobenzene	2/3/2003
Solids	Extractable Organics	EPA 8270	1 2-Dichlorobenzene	2/3/2003
Solids	Extractable Organics	EPA 8270	1 2-Dinitrobenzene	2/3/2003

Solids	Extractable Organics	EPA 8270	1 2-Diphenylhydrazine	5/4/2005
Solids	Extractable Organics	EPA 8270	1 3 5-Trinitrobenzene (1 3 5-TNB)	5/4/2005
Solids	Extractable Organics	EPA 8270	1 3-Dichlorobenzene	2/3/2003
Solids	Extractable Organics	EPA 8270	1 3-Dinitrobenzene (1 3-DNB)	2/3/2003
Solids	Extractable Organics	EPA 8270	1 4-Dichlorobenzene	2/3/2003
Solids	Extractable Organics	EPA 8270	1 4-Dinitrobenzene	2/3/2003
Solids	Extractable Organics	EPA 8270	1 4-Naphthoquinone	2/3/2003
Solids	Extractable Organics	EPA 8270	1-Naphthylamine	2/3/2003
Solids	Extractable Organics	EPA 8270	2 3 4 6-Tetrachlorophenol	5/4/2005
Solids	Extractable Organics	EPA 8270	2 4 5-Trichlorophenol	2/3/2003
Solids	Extractable Organics	EPA 8270	2 4 5-Trimethylaniline	2/3/2003
Solids	Extractable Organics	EPA 8270	2 4 6-Trichlorophenol	2/3/2003
Solids	Extractable Organics	EPA 8270	2 4-Dichlorophenol	2/3/2003
Solids	Extractable Organics	EPA 8270	2 4-Dimethylphenol	2/3/2003
Solids	Extractable Organics	EPA 8270	2 4-Dinitrophenol	2/3/2003
Solids	Extractable Organics	EPA 8270	2 4-Dinitrotoluene (2 4-DNT)	5/4/2005
Solids	Extractable Organics	EPA 8270	2 6-Dichlorophenol	2/3/2003
Solids	Extractable Organics	EPA 8270	2 6-Dinitrotoluene (2 6-DNT)	2/3/2003
Solids	Extractable Organics	EPA 8270	2-Acetylaminofluorene	2/3/2003
Solids	Extractable Organics	EPA 8270	2-Chloronaphthalene	2/3/2003
Solids	Extractable Organics	EPA 8270	2-Chlorophenol	2/3/2003

Solids	Extractable Organics	EPA 8270	2-Methyl-4 6-dinitrophenol	5/4/2005
Solids	Extractable Organics	EPA 8270	2-Methylnaphthalene	2/3/2003
Solids	Extractable Organics	EPA 8270	2-Methylphenol (o-Cresol)	2/3/2003
Solids	Extractable Organics	EPA 8270	2-Nitroaniline	2/3/2003
Solids	Extractable Organics	EPA 8270	2-Nitrophenol	2/3/2003
Solids	Extractable Organics	EPA 8270	2-Picoline (2-Methylpyridine)	5/4/2005
Solids	Extractable Organics	EPA 8270	3 3`-Dichlorobenzidine	2/3/2003
Solids	Extractable Organics	EPA 8270	3 3`-Dimethylbenzidine	2/3/2003
Solids	Extractable Organics	EPA 8270	3-Methylcholanthrene	2/3/2003
Solids	Extractable Organics	EPA 8270	3-Methylphenol (m-Cresol)	2/3/2003
Solids	Extractable Organics	EPA 8270	3-Nitroaniline	2/3/2003
Solids	Extractable Organics	EPA 8270	4-Aminobiphenyl	2/3/2003
Solids	Extractable Organics	EPA 8270	4-Bromophenyl phenyl ether	2/3/2003
Solids	Extractable Organics	EPA 8270	4-Chloro-3-methylphenol	2/3/2003
Solids	Extractable Organics	EPA 8270	4-Chloroaniline	2/3/2003
Solids	Extractable Organics	EPA 8270	4-Chlorophenyl phenylether	2/3/2003
Solids	Extractable Organics	EPA 8270	4-Dimethyl aminoazobenzene	2/3/2003
Solids	Extractable Organics	EPA 8270	4-Methylphenol (p-Cresol)	2/3/2003
Solids	Extractable Organics	EPA 8270	4-Nitroaniline	2/3/2003
Solids	Extractable Organics	EPA 8270	4-Nitrophenol	2/3/2003
Solids	Extractable Organics	EPA 8270	5-Nitro-o-toluidine	2/3/2003

Solids	Extractable Organics	EPA 8270	7 12-Dimethylbenz(a) anthracene	5/4/2005
Solids	Extractable Organics	EPA 8270	Acenaphthene	2/3/2003
Solids	Extractable Organics	EPA 8270	Acenaphthylene	2/3/2003
Solids	Extractable Organics	EPA 8270	Acetophenone	2/3/2003
Solids	Extractable Organics	EPA 8270	Aniline	2/3/2003
Solids	Extractable Organics	EPA 8270	Anthracene	2/3/2003
Solids	Extractable Organics	EPA 8270	Aramite	2/3/2003
Solids	Extractable Organics	EPA 8270	Benzidine	2/3/2003
Solids	Extractable Organics	EPA 8270	Benzo(a)pyrene	2/3/2003
Solids	Extractable Organics	EPA 8270	Benzo(b)fluoranthene	2/3/2003
Solids	Extractable Organics	EPA 8270	Benzo(g h i)perylene	5/4/2005
Solids	Extractable Organics	EPA 8270	Benzo(k)fluoranthene	2/3/2003
Solids	Extractable Organics	EPA 8270	Benzyl alcohol	2/3/2003
Solids	Extractable Organics	EPA 8270	Butyl benzyl phthalate	2/3/2003
Solids	Extractable Organics	EPA 8270	Carbazole	5/4/2005
Solids	Extractable Organics	EPA 8270	Chrysene	2/3/2003
Solids	Extractable Organics	EPA 8270	Di-n-butyl phthalate	2/3/2003
Solids	Extractable Organics	EPA 8270	Di-n-octyl phthalate	2/3/2003
Solids	Extractable Organics	EPA 8270	Dibenz(a h) anthracene	2/3/2003
Solids	Extractable Organics	EPA 8270	Dibenzofuran	2/3/2003
Solids	Extractable Organics	EPA 8270	Diethyl phthalate	2/3/2003

Solids	Extractable Organics	EPA 8270	Dimethyl phthalate	2/3/2003
Solids	Extractable Organics	EPA 8270	Diphenylamine	2/3/2003
Solids	Extractable Organics	EPA 8270	Ethyl methanesulfonate	5/4/2005
Solids	Extractable Organics	EPA 8270	Fluoranthene	2/3/2003
Solids	Extractable Organics	EPA 8270	Fluorene	2/3/2003
Solids	Extractable Organics	EPA 8270	Hexachlorobenzene	2/3/2003
Solids	Extractable Organics	EPA 8270	Hexachlorobutadiene	2/3/2003
Solids	Extractable Organics	EPA 8270	Hexachlorocyclopentadiene	2/3/2003
Solids	Extractable Organics	EPA 8270	Hexachloroethane	2/3/2003
Solids	Extractable Organics	EPA 8270	Hexachloropropene	5/4/2005
Solids	Extractable Organics	EPA 8270	Indeno(1 2 3-cd)pyrene	2/3/2003
Solids	Extractable Organics	EPA 8270	Isophorone	2/3/2003
Solids	Extractable Organics	EPA 8270	Isosafrole	5/4/2005
Solids	Extractable Organics	EPA 8270	Methapyrilene	2/3/2003
Solids	Extractable Organics	EPA 8270	Methyl methanesulfonate	2/3/2003
Solids	Extractable Organics	EPA 8270	Naphthalene	2/3/2003
Solids	Extractable Organics	EPA 8270	Nitrobenzene	2/3/2003
Solids	Extractable Organics	EPA 8270	Nitroquinoline-1-oxide	2/3/2003
Solids	Extractable Organics	EPA 8270	Pentachlorobenzene	2/3/2003
Solids	Extractable Organics	EPA 8270	Pentachloronitrobenzene	2/3/2003
Solids	Extractable Organics	EPA 8270	Pentachlorophenol	2/3/2003

Solids	Extractable Organics	EPA 8270	Phenacetin	2/3/2003
Solids	Extractable Organics	EPA 8270	Phenanthrene	2/3/2003
Solids	Extractable Organics	EPA 8270	Phenol	2/3/2003
Solids	Extractable Organics	EPA 8270	Pyrene	2/3/2003
Solids	Extractable Organics	EPA 8270	Pyridine	5/4/2005
Solids	Extractable Organics	EPA 8270	Safrole	5/4/2005
Solids	Extractable Organics	EPA 8270	beta-Naphthylamine	2/3/2003
Solids	Extractable Organics	EPA 8270	bis(2-Chloroethoxy)methane	2/3/2003
Solids	Extractable Organics	EPA 8270	bis(2-Chloroethyl) ether	2/3/2003
Solids	Extractable Organics	EPA 8270	bis(2-Chloroisopropyl) ether (2 2`-Oxybis(1-chloropropane))	2/3/2003
Solids	Extractable Organics	EPA 8270	bis(2-Ethylhexyl) phthalate (DEHP)	2/3/2003
Solids	Extractable Organics	EPA 8270	n-Nitroso-di-n-butylamine	2/3/2003
Solids	Extractable Organics	EPA 8270	n-Nitrosodi-n-propylamine	2/3/2003
Solids	Extractable Organics	EPA 8270	n-Nitrosodiethylamine	2/3/2003
Solids	Extractable Organics	EPA 8270	n-Nitrosodimethylamine	2/3/2003
Solids	Extractable Organics	EPA 8270	n-Nitrosodiphenylamine	2/3/2003
Solids	Extractable Organics	EPA 8270	n-Nitrosomethylethylamine	2/3/2003
Solids	Extractable Organics	EPA 8270	n-Nitrosomorpholine	5/4/2005
Solids	Extractable Organics	EPA 8270	n-Nitrosopiperidine	2/3/2003
Solids	Extractable Organics	EPA 8270	n-Nitrosopyrrolidine	2/3/2003
Solids	Extractable Organics	EPA 8270	o-Toluidine	2/3/2003

Solids	Extractable Organics	FL-PRO	Total Petroleum Hydrocarbons (TPH)	10/18/2005
Solids	General Chemistry	EPA 9045	pH	10/18/2005
Solids	Metals	EPA 6020	Aluminum	2/26/2003
Solids	Metals	EPA 6020	Antimony	2/26/2003
Solids	Metals	EPA 6020	Arsenic	2/26/2003
Solids	Metals	EPA 6020	Barium	2/26/2003
Solids	Metals	EPA 6020	Beryllium	2/26/2003
Solids	Metals	EPA 6020	Cadmium	2/26/2003
Solids	Metals	EPA 6020	Calcium	5/4/2005
Solids	Metals	EPA 6020	Chromium	2/26/2003
Solids	Metals	EPA 6020	Cobalt	2/26/2003
Solids	Metals	EPA 6020	Copper	2/26/2003
Solids	Metals	EPA 6020	Iron	5/4/2005
Solids	Metals	EPA 6020	Lead	2/26/2003
Solids	Metals	EPA 6020	Magnesium	5/4/2005
Solids	Metals	EPA 6020	Manganese	2/26/2003
Solids	Metals	EPA 6020	Mercury	5/4/2005
Solids	Metals	EPA 6020	Molybdenum	5/4/2005
Solids	Metals	EPA 6020	Nickel	2/26/2003
Solids	Metals	EPA 6020	Potassium	5/4/2005
Solids	Metals	EPA 6020	Selenium	5/4/2005

Solids	Metals	EPA 6020	Silver	2/26/2003
Solids	Metals	EPA 6020	Sodium	5/4/2005
Solids	Metals	EPA 6020	Thallium	2/26/2003
Solids	Metals	EPA 6020	Vanadium	5/4/2005
Solids	Metals	EPA 6020	Zinc	2/26/2003
Solids	Metals	JEL ICP-002	Phosphorus total	10/29/2004
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	4 4`-DDD	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	4 4`-DDE	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	4 4`-DDT	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Aldrin	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Chlordane (tech.)	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Dieldrin	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Endosulfan I	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Endosulfan II	5/4/2005
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Endosulfan sulfate	2/3/2003
Solids	Pesticides-Herbicides-	EPA 8081	Endrin	2/3/2003

	PCB`s			
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Endrin aldehyde	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Endrin ketone	5/4/2005
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Heptachlor	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Heptachlor epoxide	5/4/2005
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Methoxychlor	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	Toxaphene (Chlorinated camphene)	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	alpha-BHC (alpha-Hexachlorocyclohexane)	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	alpha-Chlordane	5/4/2005
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	beta-BHC (beta-Hexachlorocyclohexane)	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	delta-BHC	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	gamma-BHC (Lindane gamma-Hexachlorocyclohexane)	5/4/2005
Solids	Pesticides-Herbicides-PCB`s	EPA 8081	gamma-Chlordane	5/4/2005
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1016 (PCB-1016)	10/15/2003

Solids	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1221 (PCB-1221)	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1232 (PCB-1232)	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1242 (PCB-1242)	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1248 (PCB-1248)	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1254 (PCB-1254)	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8082	Aroclor-1260 (PCB-1260)	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	4 4`-DDD	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	4 4`-DDE	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	4 4`-DDT	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Aldrin	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Azinphos-methyl (Guthion)	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Carbophenothion	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Chlordane (tech.)	2/3/2003
Solids	Pesticides-Herbicides-	EPA 8270	Chlorfenvinphos	10/15/2003

	PCB`s			
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Chlorobenzilate	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Coumaphos	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Crotoxyphos	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Demeton-o	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Demeton-s	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Diallate	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Dichlorovos (DDVP Dichlorvos)	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Dicrotophos	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Dieldrin	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Dimethoate	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Dinoseb (2-sec-butyl-4 6-dinitrophenol DNBP)	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Dioxathion	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Disulfoton	10/15/2003

Solids	Pesticides-Herbicides-PCB`s	EPA 8270	EPN	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Endosulfan I	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Endosulfan II	5/4/2005
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Endosulfan sulfate	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Endrin	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Endrin aldehyde	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Ethion	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Famphur	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Fensulfothion	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Fenthion	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Heptachlor	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Heptachlor epoxide	5/4/2005
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Hexamethylphosphoramide (HMPA)	10/15/2003
Solids	Pesticides-Herbicides-	EPA 8270	Isodrin	2/3/2003

	PCB`s			
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Kepone	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Leptophos	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Malathion	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Methoxychlor	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Methyl parathion (Parathion methyl)	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Mevinphos	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Monocrotophos	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Naled	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Parathion ethyl	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Phorate	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Phosmet (Imidan)	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Phosphamidon	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Sulfotepp	10/15/2003

Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Terbufos	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Tetrachlorvinphos (Stirophos Gardona)	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Tetraethyl pyrophosphate (TEPP)	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	Thionazin (Zinophos)	10/15/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	alpha-BHC (alpha-Hexachlorocyclohexane)	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	beta-BHC (beta-Hexachlorocyclohexane)	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	delta-BHC	2/3/2003
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	gamma-BHC (Lindane gamma-Hexachlorocyclohexane)	5/4/2005
Solids	Pesticides-Herbicides-PCB`s	EPA 8270	o o o-Triethyl phosphorothioate	2/3/2003
Solids	Volatile Organics	EPA 8260	1 1 1 2-Tetrachloroethane	2/3/2003
Solids	Volatile Organics	EPA 8260	1 1 1-Trichloroethane	2/3/2003
Solids	Volatile Organics	EPA 8260	1 1 2 2-Tetrachloroethane	2/3/2003
Solids	Volatile Organics	EPA 8260	1 1 2-Trichloroethane	2/3/2003
Solids	Volatile Organics	EPA 8260	1 1-Dichloroethane	2/3/2003
Solids	Volatile Organics	EPA 8260	1 1-Dichloroethylene	2/3/2003
Solids	Volatile Organics	EPA 8260	1 1-Dichloropropene	5/4/2005

Solids	Volatile Organics	EPA 8260	1 2 3-Trichlorobenzene	5/4/2005
Solids	Volatile Organics	EPA 8260	1 2 3-Trichloropropane	2/3/2003
Solids	Volatile Organics	EPA 8260	1 2 4-Trichlorobenzene	2/3/2003
Solids	Volatile Organics	EPA 8260	1 2 4-Trimethylbenzene	5/4/2005
Solids	Volatile Organics	EPA 8260	1 2-Dibromo-3-chloropropane (DBCP)	5/4/2005
Solids	Volatile Organics	EPA 8260	1 2-Dibromoethane (EDB Ethylene dibromide)	2/3/2003
Solids	Volatile Organics	EPA 8260	1 2-Dichlorobenzene	2/3/2003
Solids	Volatile Organics	EPA 8260	1 2-Dichloroethane	2/3/2003
Solids	Volatile Organics	EPA 8260	1 2-Dichloropropane	2/3/2003
Solids	Volatile Organics	EPA 8260	1 3 5-Trimethylbenzene	2/3/2003
Solids	Volatile Organics	EPA 8260	1 3-Dichlorobenzene	2/3/2003
Solids	Volatile Organics	EPA 8260	1 3-Dichloropropane	5/4/2005
Solids	Volatile Organics	EPA 8260	1 4-Dichlorobenzene	2/3/2003
Solids	Volatile Organics	EPA 8260	1 4-Dioxane (1 4-Diethyleneoxide)	5/4/2005
Solids	Volatile Organics	EPA 8260	2 2-Dichloropropane	5/4/2005
Solids	Volatile Organics	EPA 8260	2-Butanone (Methyl ethyl ketone MEK)	5/4/2005
Solids	Volatile Organics	EPA 8260	2-Chloroethyl vinyl ether	5/4/2005
Solids	Volatile Organics	EPA 8260	2-Chlorotoluene	5/4/2005
Solids	Volatile Organics	EPA 8260	2-Hexanone	5/4/2005
Solids	Volatile Organics	EPA 8260	4-Chlorotoluene	5/4/2005
Solids	Volatile Organics	EPA 8260	4-Methyl-2-pentanone (MIBK)	5/4/2005

Solids	Volatile Organics	EPA 8260	Acetone	5/4/2005
Solids	Volatile Organics	EPA 8260	Acrolein (Propenal)	5/4/2005
Solids	Volatile Organics	EPA 8260	Acrylonitrile	5/4/2005
Solids	Volatile Organics	EPA 8260	Benzene	2/3/2003
Solids	Volatile Organics	EPA 8260	Bromobenzene	2/3/2003
Solids	Volatile Organics	EPA 8260	Bromochloromethane	2/3/2003
Solids	Volatile Organics	EPA 8260	Bromodichloromethane	2/3/2003
Solids	Volatile Organics	EPA 8260	Bromoform	2/3/2003
Solids	Volatile Organics	EPA 8260	Carbon disulfide	5/4/2005
Solids	Volatile Organics	EPA 8260	Carbon tetrachloride	2/3/2003
Solids	Volatile Organics	EPA 8260	Chlorobenzene	2/3/2003
Solids	Volatile Organics	EPA 8260	Chloroethane	2/3/2003
Solids	Volatile Organics	EPA 8260	Chloroform	2/3/2003
Solids	Volatile Organics	EPA 8260	Dibromochloromethane	2/3/2003
Solids	Volatile Organics	EPA 8260	Dibromomethane	2/3/2003
Solids	Volatile Organics	EPA 8260	Dichlorodifluoromethane	2/3/2003
Solids	Volatile Organics	EPA 8260	Ethyl methacrylate	5/4/2005
Solids	Volatile Organics	EPA 8260	Ethylbenzene	2/3/2003
Solids	Volatile Organics	EPA 8260	Hexachlorobutadiene	2/3/2003
Solids	Volatile Organics	EPA 8260	Iodomethane (Methyl iodide)	5/4/2005
Solids	Volatile Organics	EPA 8260	Isopropylbenzene	2/3/2003

Solids	Volatile Organics	EPA 8260	Methyl bromide (Bromomethane)	2/3/2003
Solids	Volatile Organics	EPA 8260	Methyl chloride (Chloromethane)	2/3/2003
Solids	Volatile Organics	EPA 8260	Methyl tert-butyl ether (MTBE)	5/4/2005
Solids	Volatile Organics	EPA 8260	Methylene chloride	2/3/2003
Solids	Volatile Organics	EPA 8260	Naphthalene	2/3/2003
Solids	Volatile Organics	EPA 8260	Styrene	2/3/2003
Solids	Volatile Organics	EPA 8260	Tetrachloroethylene (Perchloroethylene)	2/3/2003
Solids	Volatile Organics	EPA 8260	Toluene	2/3/2003
Solids	Volatile Organics	EPA 8260	Trichloroethene (Trichloroethylene)	5/4/2005
Solids	Volatile Organics	EPA 8260	Trichlorofluoromethane	2/3/2003
Solids	Volatile Organics	EPA 8260	Vinyl acetate	5/4/2005
Solids	Volatile Organics	EPA 8260	Vinyl chloride	2/3/2003
Solids	Volatile Organics	EPA 8260	Xylene (total)	2/3/2003
Solids	Volatile Organics	EPA 8260	cis-1 2-Dichloroethylene	5/4/2005
Solids	Volatile Organics	EPA 8260	cis-1 3-Dichloropropene	5/4/2005
Solids	Volatile Organics	EPA 8260	cis-1 4-Dichloro-2-butene	5/4/2005
Solids	Volatile Organics	EPA 8260	n-Butylbenzene	5/4/2005
Solids	Volatile Organics	EPA 8260	n-Propylbenzene	5/4/2005
Solids	Volatile Organics	EPA 8260	p-Isopropyltoluene	5/4/2005
Solids	Volatile Organics	EPA 8260	sec-Butylbenzene	5/4/2005
Solids	Volatile Organics	EPA 8260	tert-Butylbenzene	5/4/2005

Solids	Volatile Organics	EPA 8260	trans-1 2-Dichloroethylene	2/3/2003
Solids	Volatile Organics	EPA 8260	trans-1 4-Dichloro-2-butene	5/4/2005

Appendix C

SL Certification Documentation

04/04/2006 TUE 8:38 FAX 4846774 Sanders Laboratories 001/007

FLORIDA DEPARTMENT OF HEALTH

State of Florida
Department of Health, Bureau of Laboratories

This is to certify that

E84380
Sanders Laboratories, Inc. - Nokomis
1050 Endeavor Ct.
Nokomis, FL 34275

has complied with Florida Administrative Code 64E-1, for the examination of Environmental samples in the following categories:

DRINKING WATER - Microbiology, Primary Inorganic Contaminants, Secondary Inorganic Contaminants

NON-POTABLE WATER - General Chemistry, Metals, Microbiology

SOLID and CHEMICAL MATERIALS - General Chemistry, Metals

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

EFFECTIVE JULY 1, 2005 **THROUGH JUNE 30, 2006**

Ming S. Chan, Ph.D.
Bureau Chief, Bureau of Laboratories
Florida Department of Health
DH Form 1697, 7/04
NON-TRANSFERABLE 06/01/2005-E84380

Laboratories Certified Under NELAP by the Florida Department of Health
Listing of Organization FOAs Query Results
Database Version:
4/1/2006 5:30:16 AM

Laboratory Name Sanders Laboratories Inc. - Nokomis

DOH ID: E84380

Matrix	Category	Method	Analyte	Certification Date
Drinking Water	Microbiology	SM 9215 B	Heterotrophic plate count	4/15/2002
Drinking Water	Microbiology	SM 9221 E	Fecal coliforms	1/18/2002
Drinking Water	Microbiology	SM 9222 B	Total coliforms	1/18/2002
Drinking Water	Microbiology	SM 9223 B	Total coliforms & E. coli	1/18/2002
Drinking Water	Primary Inorganic Contaminants	EPA 200.7	Arsenic	1/18/2002
Drinking Water	Primary Inorganic Contaminants	EPA 200.7	Barium	1/18/2002
Drinking Water	Primary Inorganic Contaminants	EPA 200.7	Beryllium	1/18/2002
Drinking Water	Primary Inorganic Contaminants	EPA 200.7	Cadmium	1/18/2002
Drinking Water	Primary Inorganic Contaminants	EPA 200.7	Calcium	3/18/2002
Drinking Water	Primary Inorganic Contaminants	EPA 200.7	Chromium	1/18/2002
Drinking Water	Primary Inorganic Contaminants	EPA 200.7	Magnesium	3/7/2005
Drinking Water	Primary Inorganic Contaminants	EPA 200.7	Nickel	1/18/2002
Drinking Water	Primary Inorganic Contaminants	EPA 200.7	Sodium	1/18/2002
Drinking Water	Primary Inorganic Contaminants	EPA 200.9	Thallium	1/18/2002
Drinking Water	Primary Inorganic Contaminants	EPA 310.1	Alkalinity as CaCO3	8/25/2004

Drinking Water	Primary Inorganic Contaminants	EPA 330.5	Total residual chlorine	8/25/2004
Drinking Water	Primary Inorganic Contaminants	EPA 353.2	Nitrate as N	3/18/2002
Drinking Water	Primary Inorganic Contaminants	EPA 353.2	Nitrite as N	3/18/2002
Drinking Water	Primary Inorganic Contaminants	EPA 353.2	Total nitrate-nitrite	3/18/2002
Drinking Water	Primary Inorganic Contaminants	EPA 354.1	Nitrite as N	3/18/2002
Drinking Water	Primary Inorganic Contaminants	SM 2510 B	Conductivity	8/25/2004
Drinking Water	Primary Inorganic Contaminants	SM 3111 B	Nickel	1/18/2002
Drinking Water	Primary Inorganic Contaminants	SM 3111 B	Sodium	1/18/2002
Drinking Water	Primary Inorganic Contaminants	SM 3112 B	Mercury	1/18/2002
Drinking Water	Primary Inorganic Contaminants	SM 3113 B	Antimony	1/18/2002
Drinking Water	Primary Inorganic Contaminants	SM 3113 B	Lead	1/18/2002
Drinking Water	Primary Inorganic Contaminants	SM 3113 B	Selenium	1/18/2002
Drinking Water	Primary Inorganic Contaminants	SM 4500-Cl G	Chlorine	12/30/2004
Drinking Water	Secondary Inorganic Contaminants	EPA 130.2	Total hardness as CaCO3	8/25/2004
Drinking Water	Secondary Inorganic Contaminants	EPA 150.1	pH	1/18/2002
Drinking Water	Secondary Inorganic Contaminants	EPA 160.1	Total dissolved solids	1/18/2002
Drinking Water	Secondary Inorganic Contaminants	EPA 180.1	Turbidity	8/25/2004
Drinking Water	Secondary Inorganic Contaminants	EPA 200.7	Aluminum	1/18/2002
Drinking Water	Secondary Inorganic Contaminants	EPA 200.7	Iron	6/27/2002
Drinking Water	Secondary Inorganic Contaminants	EPA 200.7	Manganese	1/18/2002
Drinking Water	Secondary Inorganic Contaminants	EPA 200.7	Potassium	8/25/2004

Drinking Water	Secondary Inorganic Contaminants	EPA 200.7	Silver	1/18/2002
Drinking Water	Secondary Inorganic Contaminants	EPA 200.7	Zinc	1/18/2002
Drinking Water	Secondary Inorganic Contaminants	EPA 215.2	Calcium hardness as CaCO3	8/25/2004
Drinking Water	Secondary Inorganic Contaminants	EPA 375.4	Sulfate	1/18/2002
Drinking Water	Secondary Inorganic Contaminants	SM 2120 B	Color	1/18/2002
Drinking Water	Secondary Inorganic Contaminants	SM 2150 B	Odor	1/18/2002
Drinking Water	Secondary Inorganic Contaminants	SM 3111 B	Iron	6/27/2002
Drinking Water	Secondary Inorganic Contaminants	SM 3111 B	Manganese	1/18/2002
Drinking Water	Secondary Inorganic Contaminants	SM 3111 B	Silver	1/18/2002
Drinking Water	Secondary Inorganic Contaminants	SM 3111 B	Zinc	1/18/2002
Drinking Water	Secondary Inorganic Contaminants	SM 3111 D	Aluminum	1/18/2002
Drinking Water	Secondary Inorganic Contaminants	SM 4500 Cl- B	Chloride	1/18/2002
Drinking Water	Secondary Inorganic Contaminants Primary Inorganic Contaminants	EPA 200.7	Copper	1/18/2002
Drinking Water	Secondary Inorganic Contaminants Primary Inorganic Contaminants	SM 3111 B	Copper	1/18/2002
Drinking Water	Secondary Inorganic Contaminants Primary Inorganic Contaminants	SM 4500 F-C	Fluoride	1/18/2002
Non-Potable Water	General Chemistry	DEP SOP 10/03/83	Un-ionized Ammonia	1/18/2002
Non-Potable Water	General Chemistry	EPA 120.1	Conductivity	1/18/2002
Non-Potable Water	General Chemistry	EPA 130.2	Hardness	1/18/2002
Non-Potable Water	General Chemistry	EPA 150.1	pH	1/18/2002

Non-Potable Water	General Chemistry	EPA 160.1	Residue-filterable (TDS)	1/18/2002
Non-Potable Water	General Chemistry	EPA 160.2	Residue-nonfilterable (TSS)	1/18/2002
Non-Potable Water	General Chemistry	EPA 160.3	Residue-total	8/25/2004
Non-Potable Water	General Chemistry	EPA 160.4	Residue-volatile	8/25/2004
Non-Potable Water	General Chemistry	EPA 180.1	Turbidity	1/18/2002
Non-Potable Water	General Chemistry	EPA 310.1	Alkalinity as CaCO3	1/18/2002
Non-Potable Water	General Chemistry	EPA 330.5	Total residual chlorine	1/18/2002
Non-Potable Water	General Chemistry	EPA 350.3	Ammonia as N	1/18/2002
Non-Potable Water	General Chemistry	EPA 351.2	Kjeldahl nitrogen - total	1/18/2002
Non-Potable Water	General Chemistry	EPA 351.2 - EPA 350.3	Organic nitrogen	1/18/2002
Non-Potable Water	General Chemistry	EPA 353.2	Nitrate as N	1/18/2002
Non-Potable Water	General Chemistry	EPA 353.2	Nitrite as N	10/8/2004
Non-Potable Water	General Chemistry	EPA 353.2	Total nitrate-nitrite	3/18/2002
Non-Potable Water	General Chemistry	EPA 354.1	Nitrite as N	1/18/2002
Non-Potable Water	General Chemistry	EPA 360.1	Oxygen dissolved	1/18/2002
Non-Potable Water	General Chemistry	EPA 365.2	Orthophosphate as P	1/18/2002
Non-Potable Water	General Chemistry	EPA 365.2	Phosphorus total	1/18/2002
Non-Potable Water	General Chemistry	EPA 365.4	Phosphorus total	10/8/2004
Non-Potable Water	General Chemistry	EPA 370.1	Silica-dissolved	3/18/2002
Non-Potable Water	General Chemistry	EPA 375.4	Sulfate	1/18/2002
Non-Potable Water	General Chemistry	EPA 405.1	Biochemical oxygen demand	1/18/2002

Non-Potable Water	General Chemistry	EPA 410.4	Chemical oxygen demand	1/18/2002
Non-Potable Water	General Chemistry	SM 10200 H	Chlorophylls	1/18/2002
Non-Potable Water	General Chemistry	SM 2120 B	Color	3/18/2002
Non-Potable Water	General Chemistry	SM 2520 B	Salinity	8/25/2004
Non-Potable Water	General Chemistry	SM 2540 G	Total fixed and volatile residue	8/25/2004
Non-Potable Water	General Chemistry	SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	8/25/2004
Non-Potable Water	General Chemistry	SM 3500-Cr D	Chromium VI	8/25/2004
Non-Potable Water	General Chemistry	SM 4500 Cl- B	Chloride	1/18/2002
Non-Potable Water	General Chemistry	SM 5210 B	Carbonaceous BOD (CBOD)	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Aluminum	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Antimony	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Arsenic	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Barium	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Beryllium	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Cadmium	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Calcium	3/18/2002
Non-Potable Water	Metals	EPA 200.7	Chromium	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Cobalt	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Copper	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Iron	1/18/2002

Non-Potable Water	Metals	EPA 200.7	Lead	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Magnesium	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Manganese	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Molybdenum	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Nickel	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Phosphorus total	3/18/2002
Non-Potable Water	Metals	EPA 200.7	Potassium	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Selenium	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Silver	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Sodium	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Thallium	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Vanadium	1/18/2002
Non-Potable Water	Metals	EPA 200.7	Zinc	1/18/2002
Non-Potable Water	Metals	EPA 202.1	Aluminum	1/18/2002
Non-Potable Water	Metals	EPA 206.2	Arsenic	1/18/2002
Non-Potable Water	Metals	EPA 213.1	Cadmium	1/18/2002
Non-Potable Water	Metals	EPA 215.1	Calcium	3/18/2002
Non-Potable Water	Metals	EPA 215.2	Calcium hardness as CaCO3	10/8/2004
Non-Potable Water	Metals	EPA 218.1	Chromium	3/18/2002
Non-Potable Water	Metals	EPA 236.1	Iron	1/18/2002
Non-Potable Water	Metals	EPA 239.2	Lead	1/18/2002

Non-Potable Water	Metals	EPA 242.1	Magnesium	1/18/2002
Non-Potable Water	Metals	EPA 245.1	Mercury	1/18/2002
Non-Potable Water	Metals	EPA 249.1	Nickel	1/18/2002
Non-Potable Water	Metals	EPA 258.1	Potassium	1/18/2002
Non-Potable Water	Metals	EPA 273.1	Sodium	1/18/2002
Non-Potable Water	Metals	EPA 289.1	Zinc	1/18/2002
Non-Potable Water	Metals	EPA 6010	Aluminum	7/1/2003
Non-Potable Water	Metals	EPA 6010	Antimony	7/1/2003
Non-Potable Water	Metals	EPA 6010	Arsenic	1/18/2002
Non-Potable Water	Metals	EPA 6010	Barium	7/1/2003
Non-Potable Water	Metals	EPA 6010	Beryllium	7/1/2003
Non-Potable Water	Metals	EPA 6010	Cadmium	1/18/2002
Non-Potable Water	Metals	EPA 6010	Chromium	7/1/2003
Non-Potable Water	Metals	EPA 6010	Cobalt	7/1/2003
Non-Potable Water	Metals	EPA 6010	Copper	1/18/2002
Non-Potable Water	Metals	EPA 6010	Iron	7/1/2003
Non-Potable Water	Metals	EPA 6010	Lead	1/18/2002
Non-Potable Water	Metals	EPA 6010	Magnesium	7/1/2003
Non-Potable Water	Metals	EPA 6010	Manganese	7/1/2003
Non-Potable Water	Metals	EPA 6010	Molybdenum	1/18/2002
Non-Potable Water	Metals	EPA 6010	Nickel	1/18/2002

Non-Potable Water	Metals	EPA 6010	Potassium	1/18/2002
Non-Potable Water	Metals	EPA 6010	Selenium	1/18/2002
Non-Potable Water	Metals	EPA 6010	Silver	7/1/2003
Non-Potable Water	Metals	EPA 6010	Sodium	7/1/2003
Non-Potable Water	Metals	EPA 6010	Thallium	7/1/2003
Non-Potable Water	Metals	EPA 6010	Vanadium	7/13/2005
Non-Potable Water	Metals	EPA 6010	Zinc	1/18/2002
Non-Potable Water	Metals	EPA 7470	Mercury	1/18/2002
Non-Potable Water	Microbiology	SM 9221 C	Fecal coliforms	1/18/2002
Non-Potable Water	Microbiology	SM 9222 B	Total coliforms	1/18/2002
Non-Potable Water	Microbiology	SM 9222 D	Fecal coliforms	1/18/2002
Non-Potable Water	Microbiology	SM 9230 C	Fecal streptococci	1/18/2002
Solids	General Chemistry	EPA 9045	pH	8/25/2004
Solids	Metals	EPA 6010	Aluminum	6/13/2002
Solids	Metals	EPA 6010	Antimony	6/13/2002
Solids	Metals	EPA 6010	Arsenic	6/13/2002
Solids	Metals	EPA 6010	Barium	6/13/2002
Solids	Metals	EPA 6010	Beryllium	6/13/2002
Solids	Metals	EPA 6010	Cadmium	6/13/2002
Solids	Metals	EPA 6010	Chromium	6/13/2002
Solids	Metals	EPA 6010	Cobalt	6/13/2002

Solids	Metals	EPA 6010	Copper	6/13/2002
Solids	Metals	EPA 6010	Iron	6/13/2002
Solids	Metals	EPA 6010	Lead	6/13/2002
Solids	Metals	EPA 6010	Magnesium	6/13/2002
Solids	Metals	EPA 6010	Manganese	6/13/2002
Solids	Metals	EPA 6010	Molybdenum	6/13/2002
Solids	Metals	EPA 6010	Nickel	6/13/2002
Solids	Metals	EPA 6010	Potassium	6/13/2002
Solids	Metals	EPA 6010	Selenium	6/13/2002
Solids	Metals	EPA 6010	Silver	6/13/2002
Solids	Metals	EPA 6010	Sodium	6/13/2002
Solids	Metals	EPA 6010	Thallium	6/13/2002
Solids	Metals	EPA 6010	Vanadium	12/8/2003
Solids	Metals	EPA 6010	Zinc	6/13/2002
Solids	Metals	EPA 7470	Mercury	7/1/2003