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www.stpete.org

City of St. Petersburg

Post Office Box 2842
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Channel 35 WSPF-TV
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October 23, 2012

Kevin O'Donnell
Environmental Manager, Southwest and Central Districts
Division of Environmental Assessment & Restoration
Bureau of Assessment and Restoration Support
Watershed Assessment, TMDL Program
2600 Blair Stone Rd MS# 3555
Tallahassee, Fl 32399

RE: 4c / 4e Documentation for Lake Maggiore
WBID 1731A

Dear Mr. O'Donnell:

We received your request for additional information for Lake Maggiore (WBID 1731A) for purposes of evaluating specific conductance within Lake Maggiore.

Lake Maggiore is rather unique in its history and cannot be considered a freshwater lake in the same way as an inland freshwater lake. It was originally known as "Salt Lake", and prior to the 1940's, the lake was directly connected by Salt Creek to Tampa Bay at its northeastern corner. The lake lies in close proximity to Tampa Bay with the eastern side of the lake just 2000 feet from the shoreline of Tampa Bay.

A series of newspaper articles beginning in the 1940's taken from the archives of the St. Petersburg Times track the change of Lake Maggiore from salt water to fresh water which began with the construction of a dam between the lake and Salt Creek. These articles are attached hereto as Exhibit "A" and show that in the early 1940's, the large tract of land around the lake was acquired by the City of St. Petersburg for creation of a park and a dam was constructed at the northeastern corner of the lake where the lake connected with Salt Creek. In 1943, there was still overflow water from the lake into the creek and there continued to be mullet in Lake Maggiore. In March 1944, Lake Maggiore was certified as a fresh water lake and the lake was stocked with game fish. In 1948, crowds of fishermen were gathering at the Lake Maggiore dam to see large mullet schools concentrated at the dam, and the mullet were attempting to get over the dam, intent on making their annual migration into the gulf. In an article in 1992, it was reported that the northeast corner of the lake was usually brackish enough to support some marine species. The dam structure was rebuilt in 1993.

Today, Lake Maggiore remains hydrologically connected to Salt Creek, a tidal waterbody directly connected to Tampa Bay. While there is a structure in Salt Creek, which was rebuilt in 1993, the function of the structure is to control water levels in the lake providing a barrier for Salt Creek from entering the lake. The structure and surrounding areas are not designed or built

to hold back excessive tides. The design plans for the structure lists a design high water level for the lake at 99.10 feet (city datum) and low water at 97.6 feet (city datum). The surrounding land elevation is 100.3 feet (city datum). Mean sea level (msl) at the St. Petersburg tide station #8726520 is 97.63 feet (city datum). Therefore, the surrounding land is 2.67 feet above MSL. The as-built construction plan sheets for the structure are included as Exhibit "B".

Recent storm events evidence the hydrological connection as well. In June 2012, rain and flooding from tropical storm Debbie impacted the St. Petersburg area. Review of the tide data from the St. Petersburg station shows that the tide elevation exceeded the 2.67 feet for numerous consecutive days in June, 2012 associated with tropical storm Debby. Depending on the amount of rain at the time of the elevated tides, significant interaction of the creek with the lake would have occurred. The area around the structure remained flooded for multiple days. In addition, review of the tide data from the St. Petersburg station shows that the tide elevation exceeded the 2.67 feet at least once in 2011.

There is no connection from Lake Maggiore to the west except potentially minor flow during a100 year storm event.

As your agency is aware, the City recently undertook a large dredging and restoration project within Lake Maggiore. As a result, there was significant dredging of Lake Maggiore between October 2004 and October 2006. The sampling program by SWFWMD was completed in December 2010.

To supplement data that was collected by the SWFWMD, the city of St. Petersburg collected two (2) sets of specific conductance data for Lake Maggiore during the past two (2) weeks. Each set of data included four (4) locations in the lake at different depths. The laboratory data sheets are attached as Exhibit "C" for your use. In all samples, the specific conductance results were above 2000 umhos/cm.

St. Petersburg supports listing WBID1731A as either category 4c or 4e.

If you have any questions or request additional information, please contact Carlos Frey at 727-892-5380 or by email at carlos.frey@stpete.org.

Sincerely,

Thomas B. Gibson

Thomas B. Gibson, P.E.
Director, Engineering & Capital Improvements

Attachments

Cc: M. Connors, J. Wallace, C. Frey

Exhibit A

News Articles

1) April 4, 1924 St. Petersburg Times – Lake Maggiore previously referred to as Salt Lake
2) May 16, 1941The Evening Independent – refers to a coffer dam being constructed across Lake Maggiore
3) July 1, 1943 St. Petersburg Times – Salt water mullet in Lake Maggiore
4) March 2, 1944 St. Petersburg Times – Lake Maggiore stocked with freshwater fish
5) February 1, 1948 St. Petrsburg Times – Lake Maggiore seined to remove saltwater fish such as tarpon, mullet and snook.
6) April 11, 1959 St. Petersburg Times – Contains reference to old timers calling the lake " Salt Lake"
7) 1992 St. Petersburg Times – refers to the north east section of the lake being more brackish

4/4/1924

lake and peculiarly enough its name is Lake Maggiore.

In the similiarity of names there is a connection: Ages ago bucaneers visited the Florida coast. They found no City of Sunshine, in fact no city at all. What became Pinellas county lay a sun drenched tract of white sand and pine and palmetto growth extending to the water. These sailors no doubt sought drinking water. They found it. Among them is believed to have been an Italian so impressed with the beauty of what is now Lake Maggiore he christened it in memory of his emerald lake at home; christened it on the spot.

In what manner the name became perpetuated nobody knows.

On very old maps, roughly sketched maps of the country the name was found and handed down to early settlers. Then it was lost. Beautiful Lake Maggiore became known as Salt Lake and remained known as such for years and years. Not until the country was surveyed for modern maps and an old, old map of the regions found lying somewhat laden and neglected was the name restored for all time.

Lake Maggiore is pronounced like "Mergy-ory." This is important for the name is as beautiful when properly spoken as is the lake.

Pinellas county has several beautiful lakes three of which lie within the precincts of the Sunshine City. All but one of the trio has interesting histories.

Bordering the heart of St. Petersburg's business district lies Mirror Lake, a body of water aptly named. Viewed at night when it is the perfect reflector of the stars and lights the nerve center of the city becomes a pool such as Narcissus might have bent above. About the lake and walks that frame it is growing today the cultural center [illegible]

"Despite the fact that the water in the first well was hard the city contracted to have additional wells dug on the principle that hard water is decidedly better than no water at all."

"In 1908 a second well was put down to a depth of 170 feet and a fine vein was found that rose to within eight feet of the surface. In May, 1909 a third well was sunk a depth of 138 feet. The water from both these wells, while hard, minerals that was contained in the 460 foot reservoir of the first did not contain the percentage of well. Moreover, it had been learned that a better grade of water could be obtained from Well No. 1 by shutting off the lower vein and tapping a vein which had been encountered at the 150-foot level.

"These additional twelve-inch wells have been sunk at Mirror Lake since 1910."

Once Different Shape.

Mirror Lake in the old days was different of shape than as seen today. The original plat of St. Petersburg included about two-thirds of the present lake although several of the public-spirited residents of the Sunshine City who fought to save the lake from being obliterated entirely a few years ago say the lake could have been twice its present size. Its present size and topography came as the result of dredging out parts of it and the filling in of others. In 1909 money was voted by the city council to buy additional land about the lake and the following year it was declared a city park. It is recorded that:

"The water which drained into the lake during the rainy season often caused it to overflow its boundaries and in 1913 an eighteen-inch drain was laid to Tampa Bay, lowering the level of the lake four feet. However, the drain was not large enough to carry off the rainfall of sixteen inches which fell [illegible]

course of construction covers an area of 56 acres. When completed Crescent Lake Park will be a beautiful palm-planted tract with a magnificent entrance and a lake the beauty of which will rival that of Maggiore. Strangely enough Crescent Lake once disappeared but not in the manner of Maggiore. It merely disappeared from view. water hyacinths grew in profusion until the lake was entirely covered and for years remained a lost lake. Rediscovered it was almost drained and filled in about ten years ago but through the efforts of citizens with vision looking toward developing the beauty of the Sunshine City enough agitation was stirred to interest civic authorities who moved toward the lake's purchase. In 1919 the city paid C. Perry Snell $30,000. for the 56 acres the park comprises. Little was done towards beautifying the park until 1923 when a drainage system was started making further improvements possible. A city

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The Evening Independent - May 16, 1941

Fruitland Heights Club Hears Talk On Florida Taxes

Walter P. Fuller was guest speaker at a meeting of the Fruitland Heights Community club last night at the Glenoak school. He discussed Florida's taxation problems.

In a short business session, H. K. Wilson, member of the club's board of directors, reported on the completion of a coffer dam across Lake Maggiore. The dam has been a project of the club for the last two years.

Members agreed to urge the city to make a survey around the lake for the purpose of dredging and building a sea-wall on the shoreline which has been permanently established by the dam.

L. Vincent Meade reported on the project to widen Sixteenth street south—called a bottleneck by club

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FISHERMEN WONDERING

Mullet Suddenly Disappear From Salt Creek Waters

As hundreds of fishermen swarmed to Salt creek yesterday to get their share of the deluge of mullet that had been going upstream for the past three days into Lake Maggiore, the fish apparently got some word of the planned onslaught and disappeared.

The few that were seen were headed out of the lake toward the salt water.

Fishermen were unable to explain the sudden stoppage of the record fish flow, further than to suggest that the changing tides may have made some difference, along with the diminishing of the overflow waters from the lake into Salt creek. Anyway, there weren't any fish to be had yesterday at that particular spot and a host of expectant fishermen were disappointed.

There also was a dispute among fishermen yesterday as to whether the fish going into the lake are heading for certain suicide. Many fishermen asserted that some of the best mullet are caught in Lake Maggiore, while others maintain that this particular type of fish cannot survive long in the fresh lake waters.

This latter group point to the death of hundreds of fish in Lake Maggiore a few years ago and contend that this probably is explained in the fact that salt water fish got into the lake and were unable to survive.

The accepted theory at the time, however, was that the fish met their death through the effects of poisonous gases generated in weed growths along the banks of the lake.

rd was received last night Washington that Polly Rose , formerly of St. Petersburg, been named by Democratic nal Chairman Robert E. egan on the committee of gements for the Democratic nal convention in Chicago in

Lake Maggiore To Be Stocked With Game Fish

Certification of Lake Maggiore as a fresh water lake will result in state and federal co-operation in the stocking of the lake with game fish under the newly set-up county soil conservation board, it was stated yesterday afternoon by Councilman William S. Howell following the conservation group's preliminary survey at this end of the county.

It was also announced that the party, including state and federal technicians, had made it plain that co-operation by the city at the newly acquired Lake Maggiore property, intended as a park, on matters of drainage and water levels would result in use of state federal equipment for projects agreed on.

The Maggiore survey was included in the inspection of major drainage areas on the initiative of Howell, who also accompanied the party through the dairying district in northwest St. Petersburg and Pinellas Park and the

Crew To Seine Lake Maggiore To Remove Fish

Lake Maggiore will be seined by a commercial fishing crew under direction of the Game and Fresh Water Fish commission. Beginning this morning at 7 a. m. and continuing until all fish have been seined from the lake.

Arrangements were made by Ralph Cooksey, president who obtained permission of the state body to seine the lake. Cooksey engaged the net crew of Cecil Evans, 1135 Twelfth street south to handle the nets. This selection was made, Cooksey said, because Evans has the only snook net in the county and could do the job.

Proceeds of the sale will be divided between Evans and the Wildlife federation and marketing will be through the Pinellas Seafood company. Conservation agents Garner and Philbin will supervise the netting.

The seining will begin at the dam on Ninth street south. All mullet, snook and other edible salt water fish will be sold. Bass, perch and crappie will be tagged and released. Tarpon and other game fish will be released into salt water.

Crowds of fishermen have been gathering at the Lake Maggiore dam for two weeks to see the large mullet schools, concentrated at the dam. The mullet, intent on their annual migration into the gulf have been attempting to get over the dam. Many of them have been speared by roving bands of youths.

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Nature Trail Is Answer To Orange Juice Stands

By DICK BOTHWELL

One of the disadvantages of living in Florida is that you get used to living in Florida. This applies to Lake Maggiore Park, St. Petersburg's finest insurance against the "madding crowd."

2nd Of 3 Articles

For example, the Park's beautiful Nature Trail is one of our great tourist attractions. Visitors can see orange juice stands anywhere in the U.S.A. but a look at Florida untouched is something different, something special.

In fact, just last November, the New York Times devoted an entire page of its travel section to pictures and a story about the Nature Trail. Yet how many of St. Petersburg's people have seen it?

The fact is that before you can appreciate something, you should know something about it. This applies to the big southside park with the odd name. Liguists tell us that it is properly pronounced "mahd JO ray" but most Pinellas folks just say "Mag-Orie" and let it go at that. (Old-timers first called it Salt Lake but we'll leave that one to Utah.)

The name happens to be older than the city itself. It was applied by William B. Miranda back in 1884, while that sturdy pioneer was helping to plat Disston City. He's said to have been impressed by the Italian lake of the same name.

Whatever the source, the title stuck. (Once they held a contest to rename it but the lake kept right on bring Mahd-JO-ray.)

For a long time, during the South Side's wilderness period, the lake was mostly used by police to dump wandering gators into, which accounts for a saurian population said to number several hundred.

Lots of people have seen the Southland Sweepstakes run there, applauded the Lake Maggiore Ski Club; but did you know that one of the first water ski shows in the nation was held there 30 years ago?

It was staged by Earl Gresh, well-known local sportsman, and Alfred E. Newman, retired Timesman and local historian.

"The crowd watched from the north side of the lake, the only side open then," Gresh recalls. "We had a bunch of local amateurs . . . the skis were clumsy, hand-made affairs, the motors only did 24-28 m.p.h."

MARSHES AND LITIGATION

The area mostly slept, however. Except for some northside development, its shores were both marshy in spots and tied up in litigation.

Even the Florida Boom failed to shake up the lake area. A million-dollar bond issue was voted to buy a large tract around the lake but owners refused to sell. Then came the crash, and the property was acquired by Sam H. Mann and James R. Bussey, prominent St. Petersburg barristers.

These two gentlemen did their City and fellow citizens a huge favor in 1941. Persuaded by the nimble tongue of Mayor R. J. McCutcheon Jr., they agreed to sell the Lake Maggiore land to the City for park purposes for $40,000, although they had refused another offer of $75,000.

The City came into possession in 1943 but World War II delayed development until 1947, when a gradual program of clearing began around the mile-square lake.

"City fathers," trumpeted The Times, "have now decided that a city of more than 100,000 population cannot ignore such an opportunity for a sight-seeing and recreation spot."

What was true in 1947 is twice as true in 1959. In fact, Lake Maggiore Park today is at last on the threshold of new status as one of America's most magnificent City parks.

NEXT: The Park That Has Everything.

St. Br

, 1992

Lake Maggiore fish kill is called natural

By STEPHEN NOHLGREN
Times Staff Writer

ST. PETERSBURG — Hundreds of dead fish floated to the surface of Lake Maggiore over the weekend, but city officials who checked the water and fish bodies Monday found nothing seriously amiss.

"It looks like natural and normal fish kill" that has already run its course, said Tom Davidowicz, ranger at the city's Boyd Hill Nature Park. "The ones that we are pulling out have been dead for a while."

For a day or two, the stench of rotting fish permeated neighborhoods on the lake's northeast shore. But during the weekend, city workers hauled off about 300 pounds of fish. Winds blew other fish carcasses across the lake to the cattails that rim the nature park on the western shore.

Most of the dead fish were saltwater species — including menhaden, snook, redfish and yellow fin mojarra — said city forester Julie Weston. They seemed to die in the northeast corner, where Salt Creek connects the lake with Tampa Bay.

Usually, water in that area is brackish enough to support some marine species, Weston said. But sometimes a control gate will reduce the saltwater flow into the lake, killing off some of the more vulnerable saltwater species.

"They were in a very limited area. And I was in there Saturday and still saw lots of fish doing just fine," Weston said. "If it were some kind of chemical or something in the lake, it would have had a much wider effect."

Another aggravating factor may have been a lack of wind over the weekend, she said. Maggiore is a shallow lake that acquires oxygen when wind stirs it up. Without wind, the lake sometimes loses so much oxygen that fish begin to die.

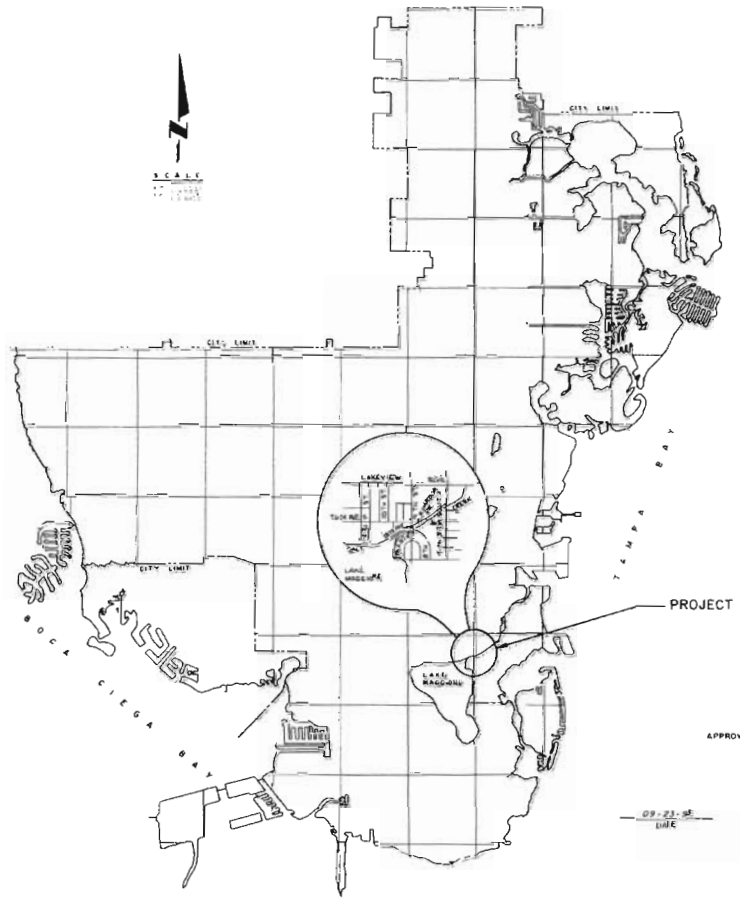
Exhibit B

1993 As-Built Construction Plan Sheets 9724-1 and 9724-13 for Current Control Structure

9th STREET BRIDGE OVER SALT CREEK

& LAKE MAGGIORE CONTROL STRUCTURE REPLACEMENT

BRIDGE NO. 157107 (EXISTING)
BRIDGE NO. 157198 (NEW)
PROJECT NO. 92031-110(R)



DRAWING INDEX

DWG. NO	DESCRIPTION
9724-1	TITLE SHEET
9724-2	GENERAL NOTES
9724-3	PLAN
9724-4	ELEVATIONS
9724-5	DEMOLITION & CONSTRUCTION STAGING
9724-6	GRADE PLAN
9724-7	PILE LAYOUT
9724-8	END BENT DETAILS WITH SHEET PILES
9724-9	SUPERSTRUCTURE SLAB
9724-10	SUPERSTRUCTURE SLAB
9724-11	BRIDGE RAILING & MISCELLANEOUS DETAILS
9724-12	APPROACH SLAB DETAILS
9724-13	CONTROL STRUCTURE PLAN & ELEVATION
9724-14	CONTROL STRUCTURE MISCELLANEOUS DETAILS
9724-15	CONTROL STRUCTURE ELECTRICAL DETAILS
9724-16	REINFORCING BAR LIST
9724-17	NORTH UTILITY RELOCATION PLAN / PROFILE
9724-18	SOUTH UTILITY RELOCATION PLAN / PROFILE
9724-19	MAINTENANCE OF TRAFFIC DETAILS
9724-20	EROSION AND TURBIDITY CONTROL DETAILS
9724-21-26	STANDARD DRAWINGS

APPROVED FOR BID

09-23-96
DATE

Michael J. Connors
MICHAEL J. CONNORS PE
DIRECTOR OF ENGINEERING

PLANS PREPARED BY
MICHAEL BAKER JR., INC.

Baker

RECORD DRAWING
PLANS INDICATE AS-BUILT CONDITIONS.
CONSTRUCTION COMPLETED IN ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS.

DATE APPROVED 5-21-96

Thomas B. Mahan
ENGINEERING CONSTRUCTION DIVISION
ENGINEERING DEPARTMENT
CITY OF ST. PETERSBURG

STORM DRAIN "AS BUILT" PLANS

CAMPBELL CONSULTANTS, INC
LAND SURVEYORS
5601 116TH AVENUE NORTH
CLEARWATER, FLORIDA 34620
PHONE (813) 573-4566 - FAX (813) 572-6603

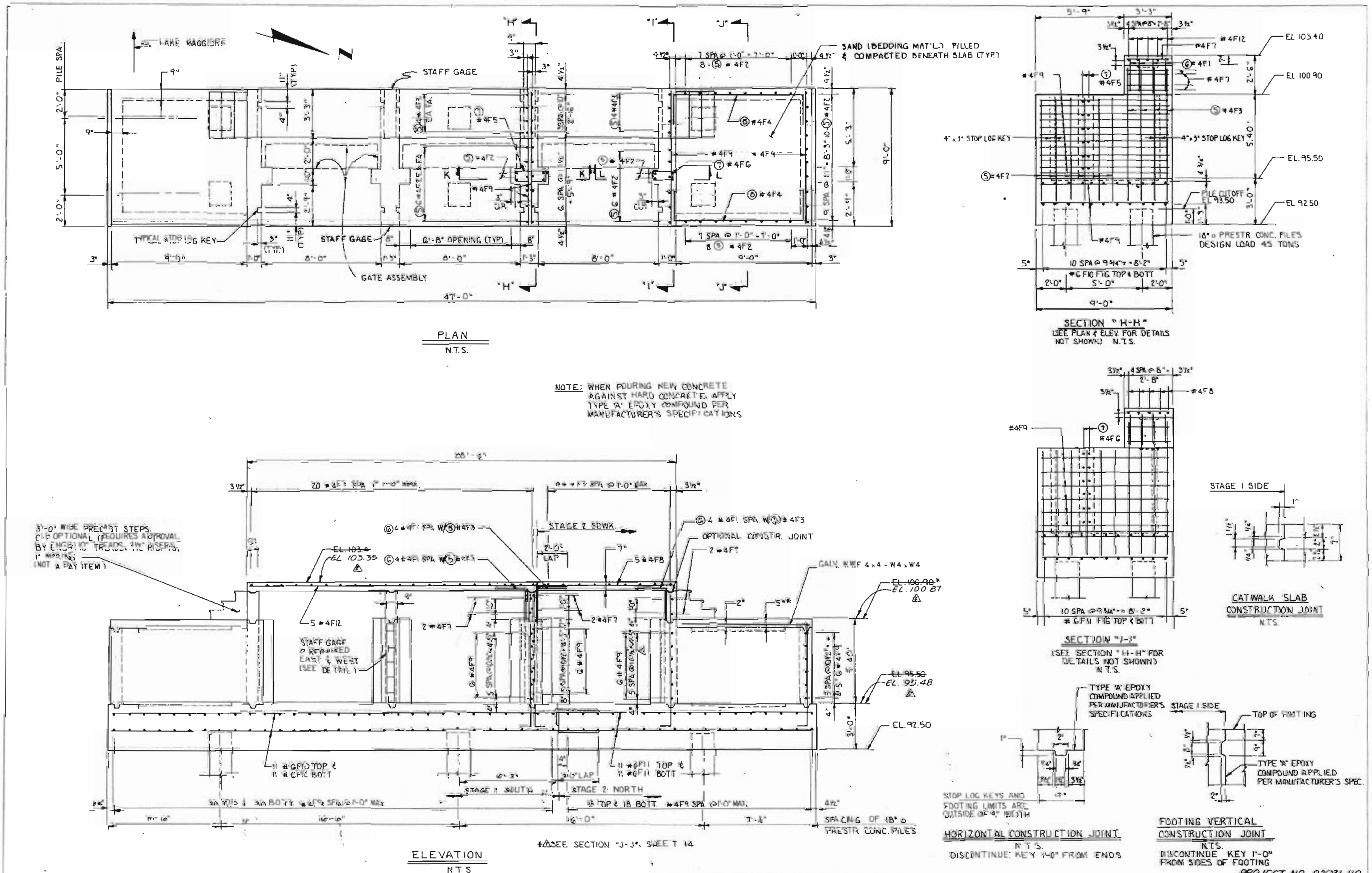
See pages 6, 13, 17, & 18 3/12/96

C I T Y O F S T . P E T E R S B U R G , F L A .

DATE:
JUNE 22, 1993
REV DEC 22, 1993

DRAWING NO. 9724-1

COPY NO.____



PROJECT NO. 92031-110

REVISIONS: △ Revised To Addm. — As-BUILT, E.R.

9th STREET BRIDGE OVER SALT CREEK & LAKE MAGGIORE CONTROL STRUCTURE REPLACEMENT

Baker
Michael Baker Jr.

CONTROL STRUCTURE
PLAN & ELEVATION

DATE: 6-22-93

DRAWING NO. 9724-13

Exhibit C
Water Quality Data

1) September 21, 2012 Sampling Date
Summary table
Laboratory Datasheets

2) September 28, 2012 Sampling Date
Summary table
Laboratory Datasheets

3) Sample Location Map

SAMPDATA

SAMPLENAME	LABSAMPID	MATRIX	SAMPDATE	METHODCODE	ANALYTE	RESULT	RL	UNITS
LM1 - surface	1226211-01	Aqueous	9/21/2012	NA	Sample Depth	1		Ft
LM1 - surface	1226211-01	Aqueous	9/21/2012	SM2510 B	Conductivity	2300		umhos/cm
LM1 - surface	1226211-01	Aqueous	9/21/2012	SM2520 B	Sailinity	1.17		ppt
LM1 - surface	1226211-01	Aqueous	9/21/2012	SM2550 B	Temperature	28.3		°C
LM1 - surface	1226211-01	Aqueous	9/21/2012	SM4500 B	pH	8.40		std units
LM1 - mid depth	1226211-02	Aqueous	9/21/2012	NA	Sample Depth	2.5		Ft
LM1 - mid depth	1226211-02	Aqueous	9/21/2012	SM2510 B	Conductivity	2299		umhos/cm
LM1 - mid depth	1226211-02	Aqueous	9/21/2012	SM2520 B	Sailinity	1.17		ppt
LM1 - mid depth	1226211-02	Aqueous	9/21/2012	SM2550 B	Temperature	28.3		°C
LM1 - mid depth	1226211-02	Aqueous	9/21/2012	SM4500 B	pH	8.41		std units
LM1 - bottom	1226211-03	Aqueous	9/21/2012	NA	Sample Depth	4		Ft
LM1 - bottom	1226211-03	Aqueous	9/21/2012	SM2510 B	Conductivity	2300		umhos/cm
LM1 - bottom	1226211-03	Aqueous	9/21/2012	SM2520 B	Sailinity	1.17		ppt
LM1 - bottom	1226211-03	Aqueous	9/21/2012	SM2550 B	Temperature	28.2		°C
LM1 - bottom	1226211-03	Aqueous	9/21/2012	SM4500 B	pH	8.39		std units
LM2 - surface	1226211-04	Aqueous	9/21/2012	NA	Sample Depth	1		Ft
LM2 - surface	1226211-04	Aqueous	9/21/2012	SM2510 B	Conductivity	2294		umhos/cm
LM2 - surface	1226211-04	Aqueous	9/21/2012	SM2520 B	Sailinity	1.17		ppt
LM2 - surface	1226211-04	Aqueous	9/21/2012	SM2550 B	Temperature	28.1		°C
LM2 - surface	1226211-04	Aqueous	9/21/2012	SM4500 B	pH	8.55		std units
LM2 - mid depth	1226211-05	Aqueous	9/21/2012	NA	Sample Depth	4.8		Ft
LM2 - mid depth	1226211-05	Aqueous	9/21/2012	SM2510 B	Conductivity	2294		umhos/cm
LM2 - mid depth	1226211-05	Aqueous	9/21/2012	SM2520 B	Sailinity	1.17		ppt
LM2 - mid depth	1226211-05	Aqueous	9/21/2012	SM2550 B	Temperature	28.1		°C
LM2 - mid depth	1226211-05	Aqueous	9/21/2012	SM4500 B	pH	8.49		std units
LM2 - bottom	1226211-06	Aqueous	9/21/2012	NA	Sample Depth	8.7		Ft
LM2 - bottom	1226211-06	Aqueous	9/21/2012	SM2510 B	Conductivity	2296		umhos/cm
LM2 - bottom	1226211-06	Aqueous	9/21/2012	SM2520 B	Sailinity	1.17		ppt
LM2 - bottom	1226211-06	Aqueous	9/21/2012	SM2550 B	Temperature	28.1		°C
LM2 - bottom	1226211-06	Aqueous	9/21/2012	SM4500 B	pH	8.41		std units
LM3 - surface	1226211-07	Aqueous	9/21/2012	NA	Sample Depth	1		Ft
LM3 - surface	1226211-07	Aqueous	9/21/2012	SM2510 B	Conductivity	2301		umhos/cm
LM3 - surface	1226211-07	Aqueous	9/21/2012	SM2520 B	Sailinity	1.17		ppt
LM3 - surface	1226211-07	Aqueous	9/21/2012	SM2550 B	Temperature	28.6		°C
LM3 - surface	1226211-07	Aqueous	9/21/2012	SM4500 B	pH	8.60		std units
LM3 - mid depth	1226211-08	Aqueous	9/21/2012	NA	Sample Depth	4.25		Ft
LM3 - mid depth	1226211-08	Aqueous	9/21/2012	SM2510 B	Conductivity	2302		umhos/cm
LM3 - mid depth	1226211-08	Aqueous	9/21/2012	SM2520 B	Sailinity	1.17		ppt
LM3 - mid depth	1226211-08	Aqueous	9/21/2012	SM2550 B	Temperature	28.5		°C
LM3 - mid depth	1226211-08	Aqueous	9/21/2012	SM4500 B	pH	8.54		std units
LM3 - bottom	1226211-09	Aqueous	9/21/2012	NA	Sample Depth	7.6		Ft
LM3 - bottom	1226211-09	Aqueous	9/21/2012	SM2510 B	Conductivity	2305		umhos/cm
LM3 - bottom	1226211-09	Aqueous	9/21/2012	SM2520 B	Sailinity	1.17		ppt
LM3 - bottom	1226211-09	Aqueous	9/21/2012	SM2550 B	Temperature	28.4		°C
LM3 - bottom	1226211-09	Aqueous	9/21/2012	SM4500 B	pH	8.43		std units
LM4 - surface	1226211-10	Aqueous	9/21/2012	NA	Sample Depth	1		Ft
LM4 - surface	1226211-10	Aqueous	9/21/2012	SM2510 B	Conductivity	2303		umhos/cm
LM4 - surface	1226211-10	Aqueous	9/21/2012	SM2520 B	Sailinity	1.17		ppt
LM4 - surface	1226211-10	Aqueous	9/21/2012	SM2550 B	Temperature	28.3		°C
LM4 - surface	1226211-10	Aqueous	9/21/2012	SM4500 B	pH	8.63		std units
LM4 - mid depth	1226211-11	Aqueous	9/21/2012	NA	Sample Depth	3		Ft

LM4 - mid depth	1226211-11	Aqueous	9/21/2012	SM2510 B	Conductivity	2302		umhos/cm
LM4 - mid depth	1226211-11	Aqueous	9/21/2012	SM2520 B	Sailinity	1.17		ppt
LM4 - mid depth	1226211-11	Aqueous	9/21/2012	SM2550 B	Temperature	28.2		°C
LM4 - mid depth	1226211-11	Aqueous	9/21/2012	SM4500 B	pH	8.62		std units
LM4 - bottom	1226211-12	Aqueous	9/21/2012	NA	Sample Depth	5.1		Ft
LM4 - bottom	1226211-12	Aqueous	9/21/2012	SM2510 B	Conductivity	2299		umhos/cm
LM4 - bottom	1226211-12	Aqueous	9/21/2012	SM2520 B	Sailinity	1.17		ppt
LM4 - bottom	1226211-12	Aqueous	9/21/2012	SM2550 B	Temperature	28.1		°C
LM4 - bottom	1226211-12	Aqueous	9/21/2012	SM4500 B	pH	8.43		std units

st.petersburg
water resources

St. Petersburg Environmental Compliance Division Laboratory
1635 3rd Ave N
St Petersburg, FL 33713
Phone: 727-893-7261
Fax: 727-823-9152

September 28, 2012

Engineering Department - St. Petersburg
Carlos Frey
MSC 7th floor, One 4th Street North
St.Petersburg FL, 33701

RE: Lake Maggiore Conductivity Profile

Report No. 1226211

The following report includes analytical results for samples received by the laboratory on25-Sep-12 11:26.

Reported results in this document meet NELAC standards, unless otherwise indicated in the report, and only apply to the samples analyzed in accordance with the attached Chain of Custody document(s).

If you have any questions concerning this report, please contact Kevin Riskowitz, Laboratory Supervisor, at 727-892-5696 or at Kevin.Riskowitz@stpete.org.

Sincerely,

Kevin Riskowitz
Laboratory Supervisor
Phone: 727-892-5696

Florida DOH Certificate No. E44058
This analytical report must be reproduced in its entirety.

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg FL, 33701	Report Number:	1226211	09/28/2012 8:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LM1 - surface	1226211-01	Aqueous	21-Sep-12 09:20	25-Sep-12 11:26
LM1 - mid depth	1226211-02	Aqueous	21-Sep-12 09:19	25-Sep-12 11:26
LM1 - bottom	1226211-03	Aqueous	21-Sep-12 09:16	25-Sep-12 11:26
LM2 - surface	1226211-04	Aqueous	21-Sep-12 09:46	25-Sep-12 11:26
LM2 - mid depth	1226211-05	Aqueous	21-Sep-12 09:44	25-Sep-12 11:26
LM2 - bottom	1226211-06	Aqueous	21-Sep-12 09:43	25-Sep-12 11:26
LM3 - surface	1226211-07	Aqueous	21-Sep-12 10:03	25-Sep-12 11:26
LM3 - mid depth	1226211-08	Aqueous	21-Sep-12 10:01	25-Sep-12 11:26
LM3 - bottom	1226211-09	Aqueous	21-Sep-12 09:59	25-Sep-12 11:26
LM4 - surface	1226211-10	Aqueous	21-Sep-12 10:22	25-Sep-12 11:26
LM4 - mid depth	1226211-11	Aqueous	21-Sep-12 10:20	25-Sep-12 11:26
LM4 - bottom	1226211-12	Aqueous	21-Sep-12 10:17	25-Sep-12 11:26

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg FL, 33701	Report Number:	1226211	09/28/2012 8:18

Case Narrative -

There were no quality control issues with the analysis unless indicated below

LM1 - N 27° 43min. 59.5 sec.
W 082° 39min. 04.2sec.

LM2 - N 27° 44min. 15.9 sec.
W 082° 39min. 0.73 sec.

LM3 - N 27° 44min. 20.9 sec.
W 082° 39min.25.1 sec.

LM4 - N 27° 44min. 29.0sec.
W 082° 39min. 01.1sec.

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg FL, 33701	Report Number:	1226211	09/28/2012 8:18

LM1 - surface

1226211-01 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	1					NA		21-Sep-12 09:19	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2300					NA		21-Sep-12 09:20	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.17					NA		21-Sep-12 09:20	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.3					NA		21-Sep-12 09:20	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.40					NA		21-Sep-12 09:20	SM4500 B

LM1 - mid depth

1226211-02 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	2.5					NA		21-Sep-12 09:19	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2299					NA		21-Sep-12 09:19	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.17					NA		21-Sep-12 09:19	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.3					NA		21-Sep-12 09:19	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.41					NA		21-Sep-12 09:19	SM4500 B

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg FL, 33701	Report Number:	1226211	09/28/2012 8:18

LM1 - bottom

1226211-03 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	4					NA		21-Sep-12 09:16	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2300					NA		21-Sep-12 09:16	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.17					NA		21-Sep-12 09:16	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.2					NA		21-Sep-12 09:16	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.39					NA		21-Sep-12 09:16	SM4500 B

LM2 - surface

1226211-04 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	1					NA		21-Sep-12 09:46	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2294					NA		21-Sep-12 09:46	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.17					NA		21-Sep-12 09:46	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.1					NA		21-Sep-12 09:46	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.55					NA		21-Sep-12 09:46	SM4500 B

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg FL, 33701	Report Number:	1226211	09/28/2012 8:18

LM2 - mid depth

1226211-05 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	4.8					NA		21-Sep-12 09:44	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2294					NA		21-Sep-12 09:44	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.17					NA		21-Sep-12 09:44	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.1					NA		21-Sep-12 09:44	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.49					NA		21-Sep-12 09:44	SM4500 B

LM2 - bottom

1226211-06 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	8.7					NA		21-Sep-12 09:43	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2296					NA		21-Sep-12 09:43	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.17					NA		21-Sep-12 09:43	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.1					NA		21-Sep-12 09:43	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.41					NA		21-Sep-12 09:43	SM4500 B

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg FL, 33701	Report Number:	1226211	09/28/2012 8:18

LM3 - surface

1226211-07 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	1					'[none]'		21-Sep-12 10:03	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2301					NA		21-Sep-12 10:03	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.17					NA		21-Sep-12 10:03	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.6					'[none]'		21-Sep-12 10:03	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.60					NA		21-Sep-12 10:03	SM4500 B

LM3 - mid depth

1226211-08 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	4.25					'[none]'		21-Sep-12 10:01	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2302					'[none]'		21-Sep-12 10:01	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.17					'[none]'		21-Sep-12 10:01	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.5					'[none]'		21-Sep-12 10:01	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.54					'[none]'		21-Sep-12 10:01	SM4500 B

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg FL, 33701	Report Number:	1226211	09/28/2012 8:18

LM3 - bottom

1226211-09 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	7.6					'[none]'		21-Sep-12 09:59	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2305					'[none]'		21-Sep-12 09:59	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.17					'[none]'		21-Sep-12 09:59	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.4					'[none]'		21-Sep-12 09:59	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.43					'[none]'		21-Sep-12 09:59	SM4500 B

LM4 - surface

1226211-10 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	1					'[none]'		21-Sep-12 10:22	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2303					'[none]'		21-Sep-12 10:22	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.17					'[none]'		21-Sep-12 10:22	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.3					'[none]'		21-Sep-12 10:22	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.63					'[none]'		21-Sep-12 10:22	SM4500 B

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	Reported:
St.Petersburg FL, 33701	Report Number:	1226211	09/28/2012 8:18

LM4 - mid depth

1226211-11 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	3					'[none]'		21-Sep-12 10:20	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2302					'[none]'		21-Sep-12 10:20	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.17					'[none]'		21-Sep-12 10:20	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.2					'[none]'		21-Sep-12 10:20	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.62					'[none]'		21-Sep-12 10:20	SM4500 B

LM4 - bottom

1226211-12 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	5.1					'[none]'		21-Sep-12 10:17	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2299					'[none]'		21-Sep-12 10:17	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.17					'[none]'		21-Sep-12 10:17	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.1					'[none]'		21-Sep-12 10:17	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.43					'[none]'		21-Sep-12 10:17	SM4500 B

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg FL, 33701	Report Number:	1226211	09/28/2012 8:18

Notes

The samples were received and processed by the laboratory There were no significant logistics or quality problems unless noted below or in the text of the report.

The Laboratory does not hold NELAP Certificaiton for Test Method SM9215 C, Hetrotropic Plate count (HPC).

The preparation date defaults to the date the sample is analyzed The preparation date is revised to reflect the date the sample is extracted, digested, or distilled for test methods that require sample preparation procedures

Field measurement results, if included in this report are not NELAP certified and were ascertained in accordance with Florida Department of Environmental Protection Standard Operating Procedures for Field Activities, DEP-SOP-001/01 (Effective Date

Analytical results for ammonia or calculated results that include ammonia do not include a sample distillation procedure

Contract Laboratory Information

Pace Analytical Services, Inc. (PAS, Inc.), 8 East Tower Circle, Ormand Beach, FL 32174, Cert. No. E83079

Advanced Environmental Laboratories, Inc., 9610 Princess Palm Ave., Tampa, FL 33619, Cert. No. E84589

City of Tampa Water Quality Laboratory 7125 N. 30 St., Tampa, FL 33610, Cert. No. E54737

TestAmerica, 6712 Benjamin Road - Suite 100,Tampa, FL 33634, Cert. No. E84282

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg FL, 33701	Report Number:	1226211	09/28/2012 8:18

I	The reported value is less certain because it is between the laboratory method detection limit and the laboratory practical quantitation limit.
Y	Improperly preserved sample, see Case Narrative
Q	Sample held beyond acceptable hold time.
J3A-	Exceeded laboratory acceptance criteria for accuracy (bisa low) target analyte may also be (bias low).
J3A+	Exceeded laboratory acceptance criteria for accuracy (bisa high) target analyte may also be (bias high).
J3P	Exceeded laboratory acceptance criteria for precision.
J1-	Surrogate recovery limit exceeded low.
J1+	Surrogate recovery limit exceeded high.
J10	Incubator/Oven temperature exceeded method criteria.
J4	The sample matrix interfered with the ability to make an accurate determination.
J5-	Field autosampler delivered a low volume sample.
J5+	Field autosampler overflow.
J5G	Grab sample, not composite.
J5T	Time composite, not flow composite.
J6-	Laboratory Control Standard limit exceeded low.
J6+	Laboratory Contol Standard limit exceeded high.
J8	See Case Narrative.
J9	Did not meet field instrument calibration verification criteria.
L	Value is known to be greater than value given
V	The blank contamination exceeds a concentration greater than 1/10 of the measured concentration of any sample in the associated sample batch.
NA*	Data not reported due to interference.
NA?	Datum Rejected
NAO	Sample delivered, but analysis not performed or sample lost.
NAR	Sample rejected. See case narrative.
NQN	Quality Control criteria is acceptable because precision was calculated from results that are below the method's Practical Quantitation Limit.
SND	Sample Not Delivered
OPS	Operations was shut down so no samples could be taken
B	Results based on colony counts outside the acceptable range.
Z	Too many colonies were present for accurate counting
D	Value based on field kit determination; results may not be accurate.
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
NR	Not Reported
dry	Sample results reported on a dry weight basis.

Sample Transmittal Record

WATER RESOURCES DEPARTMENT
ST. PETERSBURG E.C.D. LABORATORY
FDOH CERTIFICATION # E44058

1635 3 AVENUE NORTH
ST PETERSBURG, FL 33713
PHONE: 727-893-7261

WAM NUMBER: _____

WORK ORDER NUMBER: 1226211

CLIENT: Engineering DEPARTMENT

PROJECT NAME: Lake Maggiore Conductivity profile

MATRIX: Aqueous

SAMPLE NAME	SAMPLE NUMBER	SAMPLE DATE	SAMPLE TIME	Conductivity µS/cm	pH	Temperature °C	Salinity ppt	Water Depth ft.	DO mg/L
LM1 - surface	1126211-01	9/21/12	09:20	2300	8.40	28.3	1.17	5'0"	5.02
LM1 - mid depth	1126211-02	9/21/12	09:19	2299	8.41	28.3	1.17	5'0"	4.74
LM1 - bottom	1126211-03	9/21/12	09:16	2300	8.39	28.2	1.17	5'0"	5.08
LM2 - surface	1126211-04	9/21/12	09:46	2294	8.55	28.1	1.17	9'8"	5.62
LM2 - mid depth	1126211-05	9/21/12	09:44	2294	8.49	28.1	1.17	9'8"	5.05
LM2 - bottom	1126211-06	9/21/12	09:43	~~2926~~ 2296	8.41	28.1	1.17	9'8"	4.43
LM3 - surface	1126211-07	9/21/12	10:03	2301	8.60	28.6	1.17	8'7"	6.17
LM3 - mid depth	1126211-08	9/21/12	10:01	2302	8.54	28.5	1.17	8'7"	6.05
LM3 - bottom	1126211-09	9/21/12	09:59	2305	8.43	28.4	1.17	8'7"	5.86
LM4 - surface	1126211-10	9/21/12	10:22	2303	8.63	28.3	1.17	6'1"	7.21
LM4 - mid depth	1126211-11	9/21/12	10:20	2302	8.62	28.2	1.17	6'1"	6.99
LM4- bottom	1126211-12	9/21/12	10:17	2299	8.43	28.1	1.17	6'1"	6.47

OBSERVATIONS:

SPILLWAY (SELECT ONE)	NO FLOW	FLOW IN	FLOW OUT (circled)

TIDE	
WIND SPEED	0.5 mph
WIND DIRECTION	SE
AIR TEMP	80.1
CLOUD COVER	90%

09:13

LM 1 - N 27° 43' 59.5"
W 082° 39' 04.2"

LM 2 N 27° 44' 15.9"
W 082° 39' 07.3"

LM 3 N 27° 44' 20.9"
W 082° 39' 25.1"

LM 4 N 27° 44' 29.0"
W 082° 39' 01.1"

TW/NK

SAMPLED BY / SUBMITTED BY

RECEIVED BY

DATE & TIME RECEIVED: 9-25-12 11:26am

SAMPLENAME	LABSAMPID	MATRIX	SAMPDATE	METHODCODE	ANALYTE	RESULT	RL	UNITS
LM1 - surface	1227209-01	Aqueous	9/28/2012	NA	Sample Depth	1.0		Ft
LM1 - surface	1227209-01	Aqueous	9/28/2012	SM2510 B	Conductivity	2264		umhos/cm
LM1 - surface	1227209-01	Aqueous	9/28/2012	SM2520 B	Sailinity	1.15		ppt
LM1 - surface	1227209-01	Aqueous	9/28/2012	SM2550 B	Temperature	27.9		°C
LM1 - surface	1227209-01	Aqueous	9/28/2012	SM4500 B	pH	8.72		std units
LM1 - mid depth	1227209-02	Aqueous	9/28/2012	NA	Sample Depth	2.6		Ft
LM1 - mid depth	1227209-02	Aqueous	9/28/2012	SM2510 B	Conductivity	2263		umhos/cm
LM1 - mid depth	1227209-02	Aqueous	9/28/2012	SM2520 B	Sailinity	1.15		ppt
LM1 - mid depth	1227209-02	Aqueous	9/28/2012	SM2550 B	Temperature	27.9		°C
LM1 - mid depth	1227209-02	Aqueous	9/28/2012	SM4500 B	pH	8.72		std units
LM1 - bottom	1227209-03	Aqueous	9/28/2012	NA	Sample Depth	4.25		Ft
LM1 - bottom	1227209-03	Aqueous	9/28/2012	SM2510 B	Conductivity	2261		umhos/cm
LM1 - bottom	1227209-03	Aqueous	9/28/2012	SM2520 B	Sailinity	1.15		ppt
LM1 - bottom	1227209-03	Aqueous	9/28/2012	SM2550 B	Temperature	27.9		°C
LM1 - bottom	1227209-03	Aqueous	9/28/2012	SM4500 B	pH	8.72		std units
LM2 - surface	1227209-04	Aqueous	9/28/2012	NA	Sample Depth	1.0		Ft
LM2 - surface	1227209-04	Aqueous	9/28/2012	SM2510 B	Conductivity	2251		umhos/cm
LM2 - surface	1227209-04	Aqueous	9/28/2012	SM2520 B	Sailinity	1.15		ppt
LM2 - surface	1227209-04	Aqueous	9/28/2012	SM2550 B	Temperature	28.0		°C
LM2 - surface	1227209-04	Aqueous	9/28/2012	SM4500 B	pH	8.78		std units
LM2 - mid depth	1227209-05	Aqueous	9/28/2012	NA	Sample Depth	4.8		Ft
LM2 - mid depth	1227209-05	Aqueous	9/28/2012	SM2510 B	Conductivity	2253		umhos/cm
LM2 - mid depth	1227209-05	Aqueous	9/28/2012	SM2520 B	Sailinity	1.15		ppt
LM2 - mid depth	1227209-05	Aqueous	9/28/2012	SM2550 B	Temperature	27.9		°C
LM2 - mid depth	1227209-05	Aqueous	9/28/2012	SM4500 B	pH	8.74		std units
LM2 - bottom	1227209-06	Aqueous	9/28/2012	NA	Sample Depth	8.7		Ft
LM2 - bottom	1227209-06	Aqueous	9/28/2012	SM2510 B	Conductivity	2261		umhos/cm
LM2 - bottom	1227209-06	Aqueous	9/28/2012	SM2520 B	Sailinity	1.15		ppt
LM2 - bottom	1227209-06	Aqueous	9/28/2012	SM2550 B	Temperature	27.7		°C
LM2 - bottom	1227209-06	Aqueous	9/28/2012	SM4500 B	pH	8.32		std units
LM3 - surface	1227209-07	Aqueous	9/28/2012	NA	Sample Depth	1		Ft
LM3 - surface	1227209-07	Aqueous	9/28/2012	SM2510 B	Conductivity	2252		umhos/cm
LM3 - surface	1227209-07	Aqueous	9/28/2012	SM2520 B	Sailinity	1.15		ppt
LM3 - surface	1227209-07	Aqueous	9/28/2012	SM2550 B	Temperature	28.1		°C
LM3 - surface	1227209-07	Aqueous	9/28/2012	SM4500 B	pH	8.78		std units
LM3 - mid depth	1227209-08	Aqueous	9/28/2012	NA	Sample Depth	4.7		Ft
LM3 - mid depth	1227209-08	Aqueous	9/28/2012	SM2510 B	Conductivity	2253		umhos/cm
LM3 - mid depth	1227209-08	Aqueous	9/28/2012	SM2520 B	Sailinity	1.15		ppt
LM3 - mid depth	1227209-08	Aqueous	9/28/2012	SM2550 B	Temperature	28.0		°C
LM3 - mid depth	1227209-08	Aqueous	9/28/2012	SM4500 B	pH	8.76		std units
LM3 - bottom	1227209-09	Aqueous	9/28/2012	NA	Sample Depth	8.3		Ft
LM3 - bottom	1227209-09	Aqueous	9/28/2012	SM2510 B	Conductivity	2256		umhos/cm
LM3 - bottom	1227209-09	Aqueous	9/28/2012	SM2520 B	Sailinity	1.15		ppt
LM3 - bottom	1227209-09	Aqueous	9/28/2012	SM2550 B	Temperature	27.7		°C
LM3 - bottom	1227209-09	Aqueous	9/28/2012	SM4500 B	pH	8.49		std units
LM4 - surface	1227209-10	Aqueous	9/28/2012	NA	Sample Depth	1		Ft
LM4 - surface	1227209-10	Aqueous	9/28/2012	SM2510 B	Conductivity	2249		umhos/cm
LM4 - surface	1227209-10	Aqueous	9/28/2012	SM2520 B	Sailinity	1.14		ppt
LM4 - surface	1227209-10	Aqueous	9/28/2012	SM2550 B	Temperature	28.1		°C
LM4 - surface	1227209-10	Aqueous	9/28/2012	SM4500 B	pH	8.70		std units
LM4 - mid depth	1227209-11	Aqueous	9/28/2012	NA	Sample Depth	3.6		Ft
LM4 - mid depth	1227209-11	Aqueous	9/28/2012	SM2510 B	Conductivity	2250		umhos/cm
LM4 - mid depth	1227209-11	Aqueous	9/28/2012	SM2520 B	Sailinity	1.15		ppt
LM4 - mid depth	1227209-11	Aqueous	9/28/2012	SM2550 B	Temperature	27.9		°C

LM4 - mid depth	1227209-11	Aqueous	9/28/2012	SM4500 B	pH	8.69		std units
LM4 - bottom	1227209-12	Aqueous	9/28/2012	NA	Sample Depth	6.2		Ft
LM4 - bottom	1227209-12	Aqueous	9/28/2012	SM2510 B	Conductivity	2260		umhos/cm
LM4 - bottom	1227209-12	Aqueous	9/28/2012	SM2520 B	Sailinity	1.15		ppt
LM4 - bottom	1227209-12	Aqueous	9/28/2012	SM2550 B	Temperature	27.5		°C
LM4 - bottom	1227209-12	Aqueous	9/28/2012	SM4500 B	pH	7.90		std units

St. Petersburg Environmental Compliance Division Laboratory
1635 3rd Ave N
St Petersburg, FL 33713
Phone: 727-893-7261
Fax: 727-823-9152

October 1, 2012

Engineering Department - St. Petersburg
Carlos Frey
MSC 7th floor, One 4th Street North
St.Petersburg FL, 33701

RE: Lake Maggiore Conductivity Profile Report No. 1227209

The following report includes analytical results for samples received by the laboratory on28-Sep-12 12:01.

Reported results in this document meet NELAC standards, unless otherwise indicated in the report, and only apply to the samples analyzed in accordance with the attached Chain of Custody documen(s).

If you have any questions concerning this report, please contact Kevin Riskowitz, Laboratory Supervisor, at 727-892-5696 or at Kevin.Riskowitz@stpete.org.

Sincerely,

Kevin Riskowitz
Laboratory Supervisor
Phone: 727-892-5696

Florida DOH Certificate No. E44058
This analytical report must be reproduced in its entirety.

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg FL, 33701	Report Number:	1227209	10/01/2012 14:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LM1 - surface	1227209-01	Aqueous	28-Sep-12 10:15	28-Sep-12 12:01
LM1 - mid depth	1227209-02	Aqueous	28-Sep-12 10:13	28-Sep-12 12:01
LM1 - bottom	1227209-03	Aqueous	28-Sep-12 10:11	28-Sep-12 12:01
LM2 - surface	1227209-04	Aqueous	28-Sep-12 10:29	28-Sep-12 12:01
LM2 - mid depth	1227209-05	Aqueous	28-Sep-12 10:28	28-Sep-12 12:01
LM2 - bottom	1227209-06	Aqueous	28-Sep-12 10:26	28-Sep-12 12:01
LM3 - surface	1227209-07	Aqueous	28-Sep-12 10:43	28-Sep-12 12:01
LM3 - mid depth	1227209-08	Aqueous	28-Sep-12 10:41	28-Sep-12 12:01
LM3 - bottom	1227209-09	Aqueous	28-Sep-12 10:40	28-Sep-12 12:01
LM4 - surface	1227209-10	Aqueous	28-Sep-12 10:59	28-Sep-12 12:01
LM4 - mid depth	1227209-11	Aqueous	28-Sep-12 10:58	28-Sep-12 12:01
LM4 - bottom	1227209-12	Aqueous	28-Sep-12 10:55	28-Sep-12 12:01

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg FL, 33701	Report Number:	1227209	10/01/2012 14:55

Case Narrative -

There were no quality control issues with the analysis unless indicated below

LM1 - N 27° 43min. 59.5 sec.
W 082° 39min. 04.2sec.

LM2 - N 27° 44min. 15.9 sec.
W 082° 39min. 0.73 sec.

LM3 - N 27° 44min. 20.9 sec.
W 082° 39min.25.1 sec.

LM4 - N 27° 44min. 29.0sec.
W 082° 39min. 01.1sec.

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg FL, 33701	Report Number:	1227209	10/01/2012 14:55

LM1 - surface

1227209-01 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	1.0					NA		28-Sep-12 10:15	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2264					NA		28-Sep-12 10:15	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.15					NA		28-Sep-12 10:15	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	27.9					NA		28-Sep-12 10:15	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.72					NA		28-Sep-12 10:15	SM4500 B

LM1 - mid depth

1227209-02 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	2.6					NA		28-Sep-12 10:13	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2263					NA		28-Sep-12 10:13	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.15					NA		28-Sep-12 10:13	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	27.9					NA		28-Sep-12 10:13	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.72					NA		28-Sep-12 10:13	SM4500 B

Engineering Department - St. Petersburg MSC 7th floor, One 4th Street North St.Petersburg FL, 33701	Project: Client Contact: Report Number:	Lake Maggiore Conductivity Profile Carlos Frey 1227209	**Reported:** 10/01/2012 14:55

LM1 - bottom

1227209-03 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	4.25					NA		28-Sep-12 10:11	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2261					NA		28-Sep-12 10:11	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.15					NA		28-Sep-12 10:11	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	27.9					NA		28-Sep-12 10:11	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.72					NA		28-Sep-12 10:11	SM4500 B

LM2 - surface

1227209-04 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	1.0					NA		28-Sep-12 10:29	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2251					NA		28-Sep-12 10:29	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.15					NA		28-Sep-12 10:29	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.0					NA		28-Sep-12 10:29	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.78					NA		28-Sep-12 10:29	SM4500 B

LM2 - mid depth

1227209-05 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	4.8					NA		28-Sep-12 10:28	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2253					NA		28-Sep-12 10:28	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.15					NA		28-Sep-12 10:28	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	27.9					NA		28-Sep-12 10:28	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.74					NA		28-Sep-12 10:28	SM4500 B

LM2 - bottom

1227209-06 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	8.7					NA		28-Sep-12 10:26	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2261					NA		28-Sep-12 10:26	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.15					NA		28-Sep-12 10:26	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	27.7					NA		28-Sep-12 10:26	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.32					NA		28-Sep-12 10:26	SM4500 B

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg FL, 33701	Report Number:	1227209	10/01/2012 14:55

LM3 - surface

1227209-07 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	1					'[none]'		28-Sep-12 10:43	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2252					NA		28-Sep-12 10:43	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.15					NA		28-Sep-12 10:43	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.1					'[none]'		28-Sep-12 10:43	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.78					NA		28-Sep-12 10:43	SM4500 B

LM3 - mid depth

1227209-08 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	4.7					'[none]'		28-Sep-12 10:41	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2253					'[none]'		28-Sep-12 10:41	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.15					'[none]'		28-Sep-12 10:41	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.0					'[none]'		28-Sep-12 10:41	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.76					'[none]'		28-Sep-12 10:41	SM4500 B

LM3 - bottom

1227209-09 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	8.3					'[none]'		28-Sep-12 10:40	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2256					'[none]'		28-Sep-12 10:40	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.15					'[none]'		28-Sep-12 10:40	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	27.7					'[none]'		28-Sep-12 10:40	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.49					'[none]'		28-Sep-12 10:40	SM4500 B

LM4 - surface

1227209-10 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	1					'[none]'		28-Sep-12 10:59	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2249					'[none]'		28-Sep-12 10:59	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.14					'[none]'		28-Sep-12 10:59	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	28.1					'[none]'		28-Sep-12 10:59	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.70					'[none]'		28-Sep-12 10:59	SM4500 B

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg FL, 33701	Report Number:	1227209	10/01/2012 14:55

LM4 - mid depth

1227209-11 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	3.6					'[none]'		28-Sep-12 10:58	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2250					'[none]'		28-Sep-12 10:58	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.15					'[none]'		28-Sep-12 10:58	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	27.9					'[none]'		28-Sep-12 10:58	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	8.69					'[none]'		28-Sep-12 10:58	SM4500 B

LM4 - bottom

1227209-12 (Aqueous)

FieldActivities

NA										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sample Depth	Ft	6.2					'[none]'		28-Sep-12 10:55	NA

SM2510 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Conductivity	umhos/cm	2260					'[none]'		28-Sep-12 10:55	SM2510 B

SM2520 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Sailinity	ppt	1.15					'[none]'		28-Sep-12 10:55	SM2520 B

SM2550 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
Temperature	°C	27.5					'[none]'		28-Sep-12 10:55	SM2550 B

SM4500 B										
Analyte	**Units**	**Result**	**Qual**	**MDL**	**PQL**	**Dilution**	**Batch**	**Prepared**	**Analyzed**	**Method**
pH	std units	7.90					'[none]'		28-Sep-12 10:55	SM4500 B

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg FL, 33701	Report Number:	1227209	10/01/2012 14:55

Notes

The samples were received and processed by the laboratory There were no significant logistics or quality problems unless noted below or in the text of the report.

The Laboratory does not hold NELAP Certificaiton for Test Method SM9215 C, Hetrotropic Plate count (HPC).

The preparation date defaults to the date the sample is analyzed The preparation date is revised to reflect the date the sample is extracted, digested, or distilled for test methods that require sample preparation procedures.

Field measurement results, if included in this report are not NELAP certified and were ascertained in accordance with Florida Department of Environmental Protection Standard Operating Procedures for Field Activities, DEP-SOP-001/01 (Effective Date

Analytical results for ammonia or calculated results that include ammonia do not include a sample distillation procedure

Contract Laboratory Information:

Pace Analytical Services, Inc. (PAS, Inc.), 8 East Tower Circle, Ormand Beach, FL 32174, Cert. No. E83079

Advanced Environmental Laboratories, Inc., 9610 Princess Palm Ave., Tampa, FL 33619, Cert. No. E84589

City of Tampa Water Quality Laboratory 7125 N. 30 St., Tampa, FL 33610, Cert. No. E54737

TestAmerica, 6712 Benjamin Road - Suite 100,Tampa, FL 33634, Cert. No. E84282

Engineering Department - St. Petersburg	Project:	Lake Maggiore Conductivity Profile	
MSC 7th floor, One 4th Street North	Client Contact:	Carlos Frey	**Reported:**
St.Petersburg Fl., 33701	Report Number:	1227209	10/01/2012 14:55

I	The reported value is less certain because it is between the laboratory method detection limit and the laboratory practical quantitation limit.
Y	Improperly preserved sample, see Case Narrative
Q	Sample held beyond acceptable hold time.
J3A-	Exceeded laboratory acceptance criteria for accuracy (bisa low) target analyte may also be (bias low).
J3A+	Exceeded laboratory acceptance criteria for accuracy (bisa high) target analyte may also be (bias high).
J3P	Exceeded laboratory acceptance criteria for precision.
J1-	Surrogate recovery limit exceeded low.
J1+	Surrogate recovery limit exceeded high.
J10	Incubator/Oven temperature exceeded method criteria.
J4	The sample matrix interfered with the ability to make an accurate determination.
J5-	Field autosampler delivered a low volume sample.
J5+	Field autosampler overflow.
J5G	Grab sample, not composite.
J5T	Time composite, not flow composite.
J6-	Laboratory Control Standard limit exceeded low.
J6+	Laboratory Contol Standard limit exceeded high.
J8	See Case Narrative.
J9	Did not meet field instrument calibration verification criteria.
L	Value is known to be greater than value given
V	The blank contamination exceeds a concentration greater than1/10 of the measured concentration of any sample in the associated sample batch.
NA*	Data not reported due to interference.
NA?	Datum Rejected
NAO	Sample delivered, but analysis not performed or sample lost.
NAR	Sample rejected. See case narrative.
NQN	Quality Control criteria is acceptable because precision was calculated from results that are below the method's Practical Quantitation Limit.
SND	Sample Not Delivered
OPS	Operations was shut down so no samples could be taken
B	Results based on colony counts outside the acceptable range.
Z	Too many colonies were present for accurate counting.
D	Value based on field kit determination; results may not be accurate.
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
NR	Not Reported
dry	Sample results reported on a dry weight basis.

Sample Transmittal Record

WATER RESOURCES DEPARTMENT
ST. PETERSBURG E.C.D. LABORATORY
FDOH CERTIFICATION # E44058

1635 3 AVENUE NORTH
ST. PETERSBURG, FL 33713
PHONE: 727-893-7261

WAM NUMBER: _____ SPILLWAY (SELECT ONE) NO FLOW FLOW IN FLOW OUT Sampled by TW/SB/NK

WORK ORDER NUMBER: 1227209

CLIENT: Engineering DEPARTMENT

PROJECT NAME: Lake Maggiore Conductivity profile

MATRIX: Aqueous

SAMPLE NAME	SAMPLE NUMBER	SAMPLE DATE	SAMPLE TIME	Conductivity	pH	Temperature	Salinity	Sample Depth
LM1 - surface	1227209-01	9/28/12	10:15	2264	8.72	27.9	1.15	1'0"
LM1 - mid depth	1227209-02	9/28/12	10:13	2263	8.72	27.9	1.15	2'7"
LM1 - bottom	1227209-03	9/28/12	10:11	2261	8.72	27.9	1.15	4'3"
LM2 - surface	1227209-04	9/28/12	10:29	2251	8.78	28.0	1.15	1'0"
LM2 - mid depth	1227209-05	9/28/12	10:28	2253	8.74	27.9	1.15	4'10"
LM2 - bottom	1227209-06	9/28/12	10:26	2261	8.32	27.7	1.15	8'8"
LM3 - surface	1227209-07	9/28/12	10:43	2252	8.78	28.1	1.15	1'0"
LM3 - mid depth	1227209-08	9/28/12	10:41	2253	8.76	28.0	1.15	4'8"
LM3 - bottom	1227209-09	9/28/12	10:40	2256	8.49	27.7	1.15	8'4"
LM4 - surface	1227209-10	9/28/12	10:59	2249	8.70	28.1	1.14	1'0"
LM4 - mid depth	1227209-11	9/28/12	10:58	2250	8.69	27.9	1.15	3'7"
LM4- bottom	1227209-12	9/28/12	10:55	2260	7.90	27.5	1.15	6'2"

OBSERVATIONS:

LM1	
TIDE	
WIND SPEED	8.7
WIND DIRECTION	NNE
AIR TEMP	78.9
CLOUD COVER	35%
Water Depth	5'3"

LM2		LM3		LM4	
TIDE		TIDE		TIDE	
WIND SPEED	10.4	WIND SPEED	7.2	WIND SPEED	7.4
WIND DIRECTION	NNE	WIND DIRECTION	NNE	WIND DIRECTION	NE
AIR TEMP	81.7	AIR TEMP	80.0	AIR TEMP	81.1
CLOUD COVER	35%	CLOUD COVER	30%	CLOUD COVER	30%
Water Depth	9'8"	Water Depth	9'4"	Water Depth	7'2"

09-23-12 P12:01 IN

Equipment	Preparation	Tracking Number
YSI Multiparameter Meter & Probe	Division's Quality Manual, section 9.3.12	N/A

pH

YSI Meter Model Number 556 **YSI Probe Bulkhead Model Number** 115565
YSI Meter Serial Number 06H1223AE **YSI Probe Bulkhead Serial Number** 12P43

IC 7.00 buffer lot # 120720B date: 9-27-12 time: 0815
10.0 buffer lot # 111212B date: 9-27-12 time: 0820

ICV 7.00 buffer lot # 120720B result: 7.00 date 9-27-12 time: 0850 temp: 20.3 °C

CCV 7.00 buffer lot # 120720B result: 7.02 date: 9-28-12 time: 0708 temp: 20.4 °C

CCV 7.00 buffer lot # 120720B result: 7.01 date: 9-28-12 time: 1257 temp: 20.4 °C

Calibrated by: NK

Acceptance criteria +/- 0.2 standard units

Temperature Verification

Refer to the pH section for the meter and probe model and serial numbers

Thermometer serial # 2804

ICV Initial Temperature Verification (meter) 45.1 °C Date: 9-28-12 Time: 0711
(High)Observed Thermometer Temperature 45.2 °C

ICV Initial Temperature Verification (meter) 3.9 °C Date: 9-28-12 Time: 0714
(low) Observed Thermometer Temperature 3.8 °C

CCV Continuing Temperature Verification (meter) 19.7 °C Date: 9-28-12 Time: 1300
(Mid)Observed Thermometer Temperature 19.6 °C

CCV Continuing Temperature Verification (meter) _____ °C Date: _____ Time: _____
(Mid)Observed Thermometer Temperature _____ °C

Acceptance criteria +/- 0.2°C of NIST-traceable value

Verified By: NK

Conductivity

Refer to the pH section for the meter and probe model and serial numbers

IC 500 standard lot # 120305A Date: 9-27-12 Time: 0720

50,000 standard lot # 120608 Date: 9-27-12 Time: 0730

ICV 12,880 standard lot # 120430C result: 12874 @ 20.1 °C date: 9-27-12 time: 0755
*Range(12,236 $_{u}$ s/cm to 13,524 $_{u}$s/cm)

CCV 1,413 standard lot # 111212C result: 1415 @ 20.4 °C date: 9-28-12 time: 0703
*Range(12,236 $_{u}$ s/cm to 13,524 $_{u}$s/cm)

CCV 1,413 standard lot # 111212C result: 1404 @ 20.9 °C date: 9-28-12 time: 1253
*Range(12,236 $_{u}$ s/cm to 13,524 $_{u}$s/cm) temp.:_____

Calibrated by: NK

*Acceptance criteria: +/- 5% of standard value

_____ _____

Reviewed by Date

Comments: _____