

RUTLEDGE ECENIA

PROFESSIONAL ASSOCIATION
ATTORNEYS AND COUNSELORS AT LAW

MICHAEL J. BARRY
STEPHEN A. ECENIA
RICHARD M. ELLIS
DIANA M. FERGUSON
MARTIN P. McDONNELL
J. STEPHEN MENTON
R. DAVID PRESCOTT

POST OFFICE BOX 551, 32302-0551
119 SOUTH MONROE STREET, SUITE 202
TALLAHASSEE, FLORIDA 32301-1841

TELEPHONE (850) 681-6788
TELECOPIER (850) 681-6515

MARSHA E. RULE
GARY R. RUTLEDGE
MAGGIE M. SCHULTZ
GABRIEL F.V. WARREN
GOVERNMENTAL CONSULTANT
JONATHAN M. COSTELLO
OF COUNSEL
HAROLD F. X. PURNELL

May 31, 2013

Via Hand Delivery

Ann Cole, Commission Clerk
Office of Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399

RECEIVED-FPSC
13 MAY 31 PM 4:35
COMMISSION
CLERK

Re: Response to PSC Staff's Data Request No. 13 dated April 5, 2013
Docket No. 130010 WS; Application for Increase in water rates in Lee County
and wastewater rates in Pasco County by Ni Florida, LLC

Dear Ms. Cole:

Enclosed for filing in the above-referenced docket is an additional response of Ni Florida, LLC ("Ni Florida") to Staff's first data requests dated April 5, 2013. Ni Florida is filing herewith its supplemental response to Request No. 13.

Request: In Order No. PSC-10-0168-PAA-SU in the last rate case, it was noted that the Utility's wastewater collection system in Pasco County had problems with elevated chloride concentrations. Pasco County had identified the Utility as a high chloride source and required it to meet 250 milligrams per liter (mg/l) chloride levels. The Commission determined that the overall quality of service was marginal in the last rate case, because the 250 mg/l chloride level had not yet been achieved. Has the Utility lowered the chloride levels to 250 mg/l or lower? Please provide all data updating the chloride situation at the Utility's Pasco Country wastewater system. This information should include the present chloride compliance status with Pasco County and a breakdown of all improvements made to reduce chloride levels, including dollars spent, since the last rate case. Also, please provide a breakdown of chloride testing results since the last rate case.

DOCUMENT NUMBER-DATE

03015 MAY 31 2

FPSC-COMMISSION CLERK

RUTLEDGE ECENIA

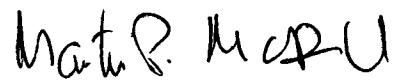
Response: See the attached response to Pasco County's letter to Ni America relating to chloride levels. Chloride test results from 5/27/08 through 4/29/13 are included at the end of the response. Of the four master lift stations, only the DelMar lift station is above the 250 mg/l level. Ni Florida believes that the most accurate measure for chlorides is a weighted average of the flow at each lift station times the chloride level for that lift station. Ni has spent over \$1,031,000 on capital expenditures for 2008 to date, of which over \$375,000 was specifically for I&I, and a portion of the remainder is related to, or will have an effect on, reducing the chloride levels even further. The annual levels of capital expenditures are shown below:

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>YTD</u> <u>2013</u>	<u>TOTAL</u>
I & I	\$ 143,474	\$ 94,404	\$ 69,942	\$ 4,722	\$ 57,731	\$ 5,500	\$ 375,773
Capital Mtc	65,241	127,223	112,236	39,894	48,425	15,838	408,857
Other	56,371	15,244	28,553	560	17,823	127,989	246,540
Total	\$ 265,086	\$236,871	\$210,731	\$ 45,176	\$123,979	\$149,327	\$1,031,170

NI Florida continues to repair or replace pipe and lift stations, and analyze the wastewater flow to determine areas where salt water may be entering the collection system. It is an on-going problem for which Ni Florida is continuing to work on.

Prepared by: Benny Wilkinson

Sincerely,

A handwritten signature in black ink that reads "Martin P. McDonnell". The letters are cursive and somewhat stylized, with the first name being the most prominent.

Martin P. McDonnell

MPM/vp

Attachment

cc: (w/out enclosures):

Suzanne Brownless

Stanley Rieger

Melissa L'Amoreaux



May 31, 2013

Mr. Bruce Kennedy P.E.
Assistant County Administrator
Utilities Services Branch
Public Works/Utilities Bldg. S-213
7536 State Street
New Port Richey, FL 34654-5598

Sent: Via Email and Certified Mail

RE: Response to correspondence dated January 31, 2013

Dear Mr. Kennedy:

I am in possession of your January 31, 2013 letter to Ni America addressing certain issues related to Ni Florida's Chloride reduction plan for its Pasco County collection system. Let me apologize for the delay in responding to your letter. The first time I saw your letter was when it was forwarded to me by the Florida Public Service Commission (FPSC) on May 16, 2013. In an attempt to minimize the chance of a reoccurrence that correspondence is lost, may I suggest we both follow the contract requirements and send correspondence via certified mail. The address for Ni for notice purposes is 10913 Metronome Drive, Houston, Texas, 77043.

Ni America believes it is complying with the terms of its contract with Pasco County. We have not slowed down or stopped our continuing efforts to reduce the level of chlorides flowing into the Del Mar Master Pump Station. Your letter came to us in the middle of our annual review and the attached report from Key Engineering is a result of continuing efforts to control the chlorides in our system. Attached is:

1. An updated report through May 15, 2013 from Key Engineering,
2. A report from the Florida Rural Water Association (FRWA) regarding certain underground procedures performed on our behalf,
3. A summary from Utility Group of Florida, LLC (UGFL) on current conditions and issues being addressed including, but not limited to the chloride reduction effort, and
4. A detailed spreadsheet of chloride readings at every master pump station from 5/27/08 through 4/29/13.

We believe we have continued to address the chloride issue at the Del Mar Master Pump Station while addressing both Infiltration & Inflow (I & I) into our system and the controlling of Sanitary Sewer Overflows (SSOs), in conformity with all of our contractual obligations and consistent with the intentions of the parties on this important issue. Ni Florida has spent over \$1,031,000 on capital expenditures since it purchased the Hudson system in 2008.

10913 Metronome • Houston, Texas 77043
(713) 574-5952 • Fax: (713) 647-0277

A brief history of the work performed is as follows:

1. **From the time of purchase until the year ended December 31, 2011** – Our primary goal was to identify and quickly repair major sources of I & I in our system. During that time period we had UGFL use their underground camera to perform video inspection of 13,502 feet of the collection system and made significant repairs at seven locations at a cost of \$313,000.
2. **Once that initiative was completed**, we began using analytical methods and repair to identify such as:
 - a. Inspecting manholes at high tide to determine potential increases in flow, and
 - b. Video inspection of high flow areas to further identify problem areas
3. **During 2012** – We continued the methods identified in subparagraph 2 above, resulting in capital expenditures of \$58,000; however we added another level of sophistication by:
 - a. Adding composite samplers at the Del Mar and Flounder Master Pump Stations that connect our system to the Pasco County system, and
 - b. Installing Mission Units to monitor pump flow and comparing that data with tide charts to determine areas with salt water intrusion.
4. **For fiscal year 2013** – On January 24, 2013, we met with Pasco County Commissioner Jack Mariano and FRWA Circuit Rider Jamie Hope and informed them that we intended to continue our best practices program of regular video inspection. Commissioner Mariano requested that we allow the FRWA to perform this video inspection of what we believed to be the more problematic areas in our system. In an attempt to reduce expenses ultimately paid by our rate payers, we welcomed the FRWA assistance (at no cost to Ni or its ratepayers) in performing an underground video inspection and review of these potential problematic areas. Their report is also attached.

Commissioner Mariano encouraged us to identify a comprehensive “Wish List” of projects we could submit along with those being submitted by Pasco County to the BP Coastal Environmental Improvement Fund. On March 28, 2013, we provided this Wish List. The List assumed usage of BP Coastal Environmental Improvement Funds for a multi-year program, and that the public money spent would meet all municipal standards using minority contractors and the longest lasting fixtures and equipment. In most cases it would not be practical for an investor owned utility to make investments of this nature given the need to keep customer rates as low as reasonably possible. Our company executives pride themselves in using the most cost effective means to provide quality service, and ensure environmental quality, in an effort to maintain public trust while balancing the cost to keep customer rates in check.

Once our Mission Units were installed, we were able to clearly identify irregular pump activity during high tides indicating we had reoccurring saltwater intrusion in areas we had previously repaired. Independent of your letter we began investigating those areas affected. About the same time, we received the report from the FRWA which generally concluded: "I saw no evidence where wastewater could leave the collection system and enter the environment." At first glance one would suspect the inverse would be true suggesting that there was no significant I & I in that portion of the system. Having said that, the report did identify several issues the most concerning of which was identified under subparagraph 1. "A Verizon bore identified on Summer Avenue near Manhole 311 where there was damage to the top of the 8" PVC gravity main."

Late last summer and early last fall, Verizon completed the installation of a new underground "FiOS" fiber optic cable system throughout the entire service area. During the Verizon project, a number of incidents occurred in which the collection system was compromised and required immediate repair. As UGFL identified the problems, Verizon worked to complete the repairs or reimburse us for the repairs deemed necessary as a result of the construction.

Unfortunately, the Verizon project was performed after the initial video inspection of that area of the system flowing into the Del Mar Master Lift Station and resulted in the identification and repair of a number of deficiencies. Those repairs had previously significantly reduced the chloride levels at the Del Mar Master Lift Station.

While we had no immediate evidence other than the FRWA letter to suggest that we were having saltwater I & I issues because of pipeline cracks caused by the Verizon installation, we began the process and will continue to investigate those areas to determine what damage, if any, has been done to our system. Presently, areas of concern specifically higher than normal flows are being identified by the Mission Units in a number of areas throughout the collection system within two hours after each high tide.

UGFL has indicated that their observations suggest that although much of Verizon's work was done in the utility easement, a substantial amount of work also occurred in the yards of our customers; an area which is not under our direct control. Accordingly, we are concerned that some source of the saltwater inflow may be from customer lines that would not be easily identified through video inspection. Rest assured that we will not let that stand in our way. Ultimately we will use whatever commercial means within our ability and control to find such cracks in our system, including special cameras to video side lines and smoke tests, where necessary and prudent. Additionally, we will put language into our tariff to repair, or disconnect these problem areas that are not under our direct control.

Since we have been in receipt of this letter our crews have identified at least three areas with significant saltwater intrusion; none of which are on our lines but rather belong to our customers. While we do not have direct ownership of those lines we have been in contact with the property owners and will send each owner a disconnect letter requesting that they fix the problem or allow us to repair the problem and bill them for our services. With the owner's approval, we will go ahead and repair those problems at the risk of not getting reimbursed by the owner. As we continue to identify these areas of concern, we are prioritizing all areas that would flow to or be pumped into the Del Mar Master Lift Station which will significantly decrease the related chloride levels flowing into the station.

It is important to remember that tap water enters the system with elevated chloride levels so it does not take much of a leak in the pipeline to bring our samples over the 250 mg/l level. Factors other than I & I affect the chloride level of our system including, but not limited, commercial water softeners (which many restaurants use), residential water softeners, and salt water pools. Even with our on-going I & I reduction efforts (including replacing large quantities of pipe), the issues described in this letter which are beyond our control give us little margin to operate within to keep the flow below the 250 mg/l level. Our engineer calculated the leakage rate that Ni Florida would have to achieve in order to reduce the chloride level to the 250mg/l contract standard. This leakage rate is 23.3 gallons per inch of pipe diameter per mile per day and is 88% more stringent than Pasco County's own standard of 200 gallons per inch of pipe diameter per mile per day for new gravity line construction. The system is on the coast and every storm or related activity adds to the normal problems any system experiences. I & I will always occur; the key is staying on top of it, which we are doing.

The following table summarizes our sample results using our less accurate field stick tests and our new composite samplers. Those results clearly suggest a concerted effort by Ni America to comply with our contract while maintaining a safe environment and quality customer service. As you have noted, the sudden uptick in 2013 is disconcerting, but as stated earlier we have efforts underway to identify and repair those issues as soon as possible.

	mg/l *					
	2008	2009	2010	2011	2012	YTD 2013
Sunny Dale	128.0	155.4	124.3	114.6	112.1	116.1
Show Palace	144.3	342.0	206.0	111.4	106.7	99.2
Flounder	179.8	215.8	186.6	168.6	176.6	229.0
Delmar	639.7	658.8	500.4	468.5	681.8	1,296.7
Average	273.0	343.0	254.3	215.8	269.3	435.2
Weighted average based on flow	521.4	600.2	469.4	418.7	538.5	836.5

	Gallons (In 000's)					
	2008	2009	2010	2011	2012	YTD 2013
Sunny Dale	13,098	4,137	2,629	2,369	1,937	377
Show Palace	554	616	567	430	424	10,250
Flounder	10,615	7,585	5,365	16,897	58,522	12,446
Delmar	75,914	83,822	83,164	102,018	154,746	33,450
	100,181	96,160	91,725	121,714	215,629	56,523

* Prior to 2013 all test results were from stick samples. During 2013 samples are a combination of stick and composite sampling.

It should be noted that these amounts of capital Ni Florida has spent and noted above are far greater than those expended by the previous owners of this collection system. Further, we believe once the areas identified above are repaired the chloride levels flowing to the Delmar Master Lift Station will be consistent with or better than other area systems in Pasco County that border the coast. For instance, the 2012 year-end chloride test result for the Osteen Rd. WWTP (formerly Lindrick Services) was 270 mg/l, the Leisure Beach Lift Station for Pasco County was 1,378 mg/l, and the Shady Hills WWTP for Pasco County was 415 mg/l.

It is also worth noting that during our ownership we have kept SSO's to a minimum, even during unusual storms that affected the entire geographic area and we made sure that our response time was sufficient to keep wastewater out of the neighboring ecosystem.

As always, I welcome an opportunity to discuss these results with you at your earliest convenience. I enjoyed our conversation. As I told Commissioner Mariano, Ni America is a company that stands by its commitments. Communication is the key, and up until today, I feel like we have been lacking sufficient communication between our entities to coordinate our efforts to be stewards of the environment.

While I do not agree with your conclusions that we are in violation of our agreement, I do appreciate your letter. It is the first step to better communication. Within thirty days I believe the repairs that are underway will bring the chlorides back down towards the 250 mg/l level. When those new results are in from our composite samplers I will forward them to you. I look forward to hearing from you about this letter or our new results when we send them. If you have any questions, or need any additional information please contact me.

Sincerely yours,



Ed Wallace

President

Ni America

281-744-7510 (cell)

713-574-7755 (direct)

cc: Commissioner Jack Mariano, Pasco County Florida
Director, Division of the Commission Clerk and Administrative Services
Florida Public Service Commission
J.R. Kelly, Office of Public Counsel
Jennifer Crawford, Office of the General Counsel, Florida Public Service Commission
Martin P. McDonnell, Esquire, Rutledge Law Firm
David Brian Brown, Florida Department of Environmental Protection
Joseph Richards, Senior Assistant County Attorney
Gregory Dziegielewski, Acting Operations and Maintenance Director
John Wittenzellner, Utility Group of Florida, LLC
Keith Bachman, Key Engineering

Key Engineering Associates, Inc.

Ni Florida, LLC Chloride Reduction Progress Report

**Prepared for:
Ed Wallace, President of the Utility
Ni America Operating
10913 Metronome Drive
Houston, TX 77043**

Prepared by:

**Keith A. Bachmann, P.E., Principal
Key Engineering Associates, Inc.
4562 Rutledge Drive, Palm Harbor, FL 34685
Phone: 727-781-1111 Fax: 727-781-1112 Email: keyengg@aol.com**

May 15, 2013

Key Engineering Associates, Inc.

Ni Florida, LLC Chloride Reduction Progress Report

Executive Summary

Ni Florida, LLC (NiFL) acquired the Hudson Utilities wastewater collection system on May 5, 2008. This system has had a problem with infiltration and inflow (I/I) in the past, resulting in wastewater with an elevated chloride concentration. NiFL has an on-going program to reduce chlorides in its wastewater collection system.

On May 8, 2013, NiFL received "Pasco County's Petition to Intervene". Pasco County contends that NiFL's "...service charges for maintenance related to inflow and infiltration are not accurately stated. Ni Florida is in breach of its contract with Pasco County because it has failed to stem the infiltration of salt water into its collection system...".

NiFL has authorized Key to review its chloride reduction efforts and prepare a Chloride Reduction Progress Report. NiFL's chloride reduction efforts have resulted in the following conclusions and recommendations:

- NiFL has been steadily working to identify I/I sources and has repaired all known I/I problem areas to reduce I/I and high chlorides in the Hudson wastewater collection system.
- During the past 4 year period, NiFL has installed 50 infiltration protectors on manhole lids, raised manholes, repaired manholes, repaired numerous broken cleanouts, elder valves, and service laterals, and made necessary repairs at numerous locations where Verizon's fiber optic installation crews had bored through the sewer mains.
- NiFL made \$90,000 worth of high priority sewer main repairs in the vicinity of Tower Drive.
- NiFL provided TV inspection of sewer mains throughout the Hudson area, particularly in the vicinity of Sea Ranch Drive, Clark Street, and Hudson Beach. Numerous I/I problems were identified and repaired.
- At the Flounder PS, the Sunnydale PS, and the Show Palace PS, the chlorides levels are consistently below 250 mg/l. At the Del Mar PS, the chloride levels continue to remain substantially higher than 250 mg/l at this PS.

Key Engineering Associates, Inc.

- NiFL is implementing the **DeIMar Chlorides Reduction Initiative**: a focused, intensive chlorides reduction program for the DeIMar pump station's service area, to achieve significant chloride concentration reductions at the DeIMar PS.
- NiFL will continue to adequately fund, and continue working diligently, in its on-going effort to detect and repair I/I and reduce chlorides throughout the Hudson wastewater collection system.
- NiFL will continue using the prudent approach of physical observation, analysis of Mission Unit data, chlorides testing, and TV inspection to help identify I/I sources.
- It is important to remain focused on the I/I problem. The challenge to identify I/I is difficult and the cost of repairing I/I problem areas is high, but this on-going work effort is necessary.

Key Engineering Associates, Inc.

Ni Florida, LLC Chloride Reduction Progress Report

Background

Ni Florida, LLC (NiFL) owns and operates a wastewater collection system in Hudson, Florida. This wastewater system was previously owned by Hudson Utilities, Inc. Some of the original collection system lines were constructed in the 1970's using vitreous clay pipe (VCP). The majority of the collection system was constructed from 1986 through 2004 using polyvinyl chloride pipe (PVC). This system has had an on-going problem with infiltration and inflow (I/I), resulting in wastewater with an elevated chloride concentration.

Hudson Utilities and Pasco County have an agreement, dated June 5, 1990, whereby Pasco County agreed to provide bulk wastewater treatment for Hudson Utilities. Pasco County has identified Hudson Utilities as a source of high chlorides in the wastewater. Hudson Utilities was acquired by NiFL on May 5, 2008.

NiFL implemented a Chloride Repair Plan to reduce the chlorides. The "Chloride Reduction Progress Report", dated May 2, 2009, evaluated NiFL's chloride reduction efforts and found that the chlorides levels are consistently below 250 mg/l at both the Flounder Pump Station (PS) and the Sunnydale PS, while the chlorides levels are consistently above 250 mg/l at the Del Mar PS. Also, NiFL's total composite average concentration has not yet dropped below the chloride standard of 250 mg/l.

The "Chloride Reduction Progress Report" was reviewed by Parsons, on behalf of Pasco County. Parson's "Review of Chloride Reduction Progress Report", dated August 10, 2010, presented composite sample test results at the Flounder PS and the Del Mar PS. These test results confirmed that only the Del Mar PS exceeds Pasco County's chloride standard of 250 mg/l as a total composite average concentration.

NiFL's "I/I Monitoring and Chlorides Reduction Plan" was prepared and transmitted to Pasco County on December 5, 2010. This report identified NiFL's plan to detect and repair I/I and reduce chlorides in Hudson's wastewater collection system. NiFL's plan focused on physical observation, conductivity monitoring, chlorides testing, and TV inspection to help identify I/I and elevated chloride sources. NiFL's plan implemented the recommendations proposed in Parson's report.

Key Engineering Associates, Inc.

Pasco County Commissioner Jack Mariano and Florida Rural Water Association (FRWA) Circuit Rider Jamie Hope met with NiFL representatives on January 24, 2013 to explore ways that NiFL's rate payers could benefit from the assistance of FRWA and possible inclusion of NiFL projects in Pasco County's RESTORE Plan.

On May 8, 2013, NiFL received "Pasco County's Petition to Intervene", along with a letter from Pasco County to NiFL, dated January 31, 2013, and Pasco County's wastewater test results from NiFL's DelMar, Flounder, and Sunnydale pump stations. Pasco County contends that NiFL's "...service charges for maintenance related to inflow and infiltration are not accurately stated. Ni Florida is in breach of its contract with Pasco County because it has failed to stem the infiltration of salt water into its collection system...".

NiFL has authorized Key to review its chloride reduction efforts and prepare a Chloride Reduction Progress Report for submittal to Pasco County and the Public Service Commission.

A review of each of the following subjects is contained in this report:

- **NiFL's Collection System Testing Program**
- **NiFL's Collection System Repairs**
- **NiFL's Chloride Test Results**
- **NiFL's On-Going I/I Reduction Program**
- **The DelMar Chloride Reduction Initiative**
- **Conclusions and Recommendations**

Key Engineering Associates, Inc.

NiFL's Collection System Testing Program

The Hudson area has a high groundwater table with substantial saltwater intrusion. Since the groundwater has high levels of chlorides, NiFL found that the best way to identify high infiltration and/or inflow (I/I) areas was by chloride testing. NiFL found that the highest levels of I/I (and the highest chlorides levels) would be during high tide. Generally, NiFL's chlorides tests are taken during high tides.

NiFL regularly tested samples of wastewater from all of the metering pump stations in the Hudson collection system. This testing confirmed that the Del Mar Metering Pump Station (PS) has a much higher chlorides level than either the Flounder or the Sunnydale Metering Pump Stations. This was to be expected because the oldest sections of the Hudson collection system, which were originally constructed with VCP in the 1970's, flow to the Del Mar PS.

NiFL installed composite samplers at the DelMar and Flounder Pump Stations to provide 24-hour composite samples for chloride monitoring. Weekly chloride monitoring by a Florida-certified testing lab is on-going at these two pump stations.

Remote pump station monitoring systems (Mission Units) have been successfully installed at all of NiFL's 42 pump stations. The Mission Units provide remote access to effective lift station monitoring and recording data, including pump run times, lift station alarms, and notices of power failures.

Key Engineering Associates, Inc.

NiFL's Collection System Repairs

All of NiFL's invoices from April 1, 2009 through mid-2012 were reviewed. The I/I-related invoices document that the following types of I/I repairs were made in various portions of the Hudson collection system:

- Installed 50 infiltration protectors on manhole lids
- Raised manholes
- Repaired manholes
- Repaired numerous broken cleanouts
- Repaired numerous broken elder valves
- Repaired numerous broken service laterals
- Made necessary repairs at numerous locations where Verizon's fiber optic installation crews had bored through the sewer mains
- Made \$90,000 worth of high priority sewer main repairs in the vicinity of Tower Drive
- Provided TV inspection of sewer mains throughout the Hudson area, particularly in the vicinity of Sea Ranch Drive
- Based on the TV inspection results, identified and repaired numerous leaks

In addition, Jamie Hope of the Florida Rural Water Association (FRWA) recently assisted NiFL with TV inspection on the majority of the wastewater collection system along Clark Street and in the Hudson Beach area. A FRWA letter addressing the results of this TV inspection work is attached. The problem areas identified in the FRWA letter have been corrected.

NiFL's Chloride Test Results

NiFL's chloride test results for each of the four metering pump stations, for the period from May, 2008 through present, were analyzed. NiFL's chloride test results were compared to Pasco County's results and found to be similar.

This data confirmed that NiFL's chloride test results for the Flounder, Sunnydale, and Show Palace metering pump stations are consistently less than 250 mg/l. Yet, at the DelMar PS, the chloride levels continue to generally remain higher than 250 mg/l.

Key Engineering Associates, Inc.

NiFL's On-Going I/I Reduction Program

In coastal areas like Hudson, elevated chlorides levels in the wastewater flow stream is common. The elevated chlorides levels are due to a high groundwater level, relative to the elevation of pipes in the wastewater collection system. With seawater having a chloride ion concentration of approximately 19,400 mg/l, even small amounts of I/I into the collection system result in dramatic increases in the chloride concentration of the wastewater. This elevated chlorides problem is not unique to NiFL. It occurs at all coastal communities.

In the Hudson area, the collection system that flows to the DelMar pump station is particularly susceptible to I/I and elevated chloride levels because parts of the collection system are very deep and were constructed in the 1970's using vitreous clay pipe (VCP).

While I/I is the most obvious source of high chloride concentrations in the wastewater, high chlorides can be present from other sources, as well. For example, if the domestic water supply has high chloride concentrations, the wastewater will have high concentrations as well. In a coastal community like Hudson, the domestic potable water has chloride concentrations that are higher than inland water sources. Also, the backwash from water softeners and salt water aquariums can cause high chloride concentrations in the wastewater.

Another factor that can dramatically impact the chlorides concentration in a wastewater system is I/I that occurs on private property, due to cracked wastewater service lines, broken clean outs, and open ends of wastewater services at vacant properties.

Nevertheless, it is important for wastewater collection system owners in coastal communities to have an effective on-going I/I reduction program in place. I/I reduction consists of two components: accurately identifying the specific locations of the principal sources of I/I and then successfully repairing these problem areas. NiFL has been steadily working to identify I/I sources and has repaired all known I/I problem areas over the past five years.

Key Engineering Associates, Inc.

The DelMar Chlorides Reduction Initiative

Due to the continued high chlorides concentrations at the DelMar pump station, NiFL has recently developed and implemented the **DelMar Chlorides Reduction Initiative**: a focused, intensive chlorides reduction program for the DelMar pump station's service area, to achieve significant chloride concentration reductions at the DelMar PS. This initiative is in addition to the on-going system-wide I/I reduction work.

The DelMar Chlorides Reduction Initiative includes the following specific tasks to identify and correct I/I in the DelMar service area:

1. Print and mount map of collection system, color coded to indicate the collection system components (manholes and piping) that flows to each lift station.
2. Identify two highest tides each week, updating daily for changes due to storm surges.
3. For all lift stations that pump into the DelMar pump station, have two teams perform chloride sampling and testing at each lift station. Tests will be performed only during a period that starts at high tide and ends two hours after each high tide. Focus TV inspection efforts on the service areas of lift stations that have high chlorides concentration.
4. A review of the data from each of the lift station's Mission Unit will be performed on the same days to compare run times of the pumps and compile information in a database to identify run time ratios for each lift station in the collection system. Focus TV inspection efforts on the service areas of lift stations that have highest ratios of "high tide" run times to "average" run times.
5. At time of the sampling event, the manholes that flow into each lift station will be inspected to identify areas of high flows.
6. The distribution system will be inspected to identify and log all vacant lots. Provide TV inspection from manhole to manhole for lines containing these vacant lots will be performed with pictures and reports created on each. All lots showing evidence of ground water intrusion will be reviewed to determine future action, which will likely include the capping of the service line.
7. Perform updated pump calibration tests for all lift stations in the DelMar service area and determine the number of equivalent residential connections (ERCs) that each lift station serves. Prepare updated calculations showing the average daily flow per ERC and focus TV inspection efforts on the service areas with lift stations that have highest flow rates per ERC.

Key Engineering Associates, Inc.

8. After 4 weeks of data collection, representatives of Ni Florida, Florida Utility Group, and Key Engineering Associates will meet (or conference call) to identify the subsequent steps in the DelMar Chlorides Reduction Initiative. Thereafter, schedule and hold regular quarterly meetings to review the most recent chlorides test results and continue to plan and implement effective chlorides reduction efforts.

Key Engineering Associates, Inc.

Conclusions and Recommendations

Key Engineering's review of NiFL's chloride reduction efforts has resulted in the following conclusions:

- NiFL has been steadily working to identify I/I sources and has repaired all known I/I problem areas to reduce I/I and high chlorides in the Hudson wastewater collection system.
- During the past 4 year period, NiFL has installed 50 infiltration protectors on manhole lids, raised manholes, repaired manholes, repaired numerous broken cleanouts, elder valves, and service laterals, and made necessary repairs at numerous locations where Verizon's fiber optic installation crews had bored through the sewer mains.
- NiFL made \$90,000 worth of high priority sewer main repairs in the vicinity of Tower Drive.
- NiFL provided TV inspection of sewer mains throughout the Hudson area, particularly in the vicinity of Sea Ranch Drive, Clark Street, and Hudson Beach. Numerous I/I problems were identified and repaired.
- At the Flounder PS, the Sunnydale PS, and the Show Palace PS, the chlorides levels are consistently below 250 mg/l.
- NiFL's chloride reduction efforts are not yet having a sustained positive effect on lowering the chloride concentration at the Del Mar PS and the chloride levels continue to remain substantially higher than 250 mg/l at this PS.
- In spite of NiFL's on-going efforts, chloride testing confirms that NiFL's total composite average concentration has not yet dropped below the chloride standard of 250 mg/l.

Key Engineering's recommendations for NiFL include the following:

- Implement the **DelMar Chlorides Reduction Initiative**: a focused, intensive chlorides reduction program for the DelMar pump station's service area, to achieve significant chloride concentration reductions at the DelMar PS.
- Continue to adequately fund, and continue working diligently, in its on-going effort to detect and repair I/I and reduce chlorides throughout the Hudson wastewater collection system.

Key Engineering Associates, Inc.

- Continue using the prudent approach of physical observation, analysis of Mission Unit data, chlorides testing, and TV inspection to help identify I/I sources.
- Stay focused on the I/I problem. The challenge to identify I/I is difficult and the cost of repairing I/I problem areas is high, but this on-going work effort is necessary.

FLORIDA RURAL WATER ASSOCIATION

2970 WELLINGTON CIRCLE • TALLAHASSEE, FL 32309-7813
(850) 668-2746

BOARD of DIRECTORS

*MICHAEL MCKINNEY
Perry
President*

*ROBERT MUNRO
Orlando
Vice President*

*WILLIAM G. GRUBBS
Quincy
Secretary/Treasurer*

*PAUL BRAYTON
Harbour Heights
National Director*

*ED HOBIN
Brooksville*

*BRUCE MORRISON
Destin*

*DARRELL POLK
Boca Grande*

*EXECUTIVE
DIRECTOR*

*GARY WILLIAMS
Tallahassee*



Andy Thomas
10913 Metronome Drive
Houston, TX.
77043

February 23, 2013

Mr. Thomas,

Recently Ni Florida and Pasco County utilities meet to discuss the wastewater collection system in the Hudson Beach area. Following the meeting, Florida Rural Water was requested to perform a CCTV on the wastewater collection system. The goal was to identify areas of collections system to see if repairs or improvements were needed.

On February 19 and 20, 2013, the TV inspection was conducted on the majority of the collection system identified in the Hudson Beach area. Video equipment from both FRWA and Florida Utility group was used to perform the inspection. The inspection began at manhole number 318 on Clark Street.

The following is a list of findings including the problem, and location.

1. A Verizon bore identified on Sommers Avenue near Manhole 311 where there was damaged to the top of the 8" PVC gravity main.
2. A crack on the top of the 8" PVC gravity main pipe on Berkowitz Avenue between manhole 308 and 307 appeared to be from damage during the construction of the collection system.
3. On Ethel Avenue, a lateral pipe coming from a home at is what is called a "Hammer Tap" had a 4" pipe partially blocking the 8" PVC gravity main.
4. Armand Way, Aureau and Lonnie Lee Way had some debris (mostly sand) in the gravity line and could benefit from a manhole insert. This would keep water, grit and other debris from entering the collection system through manholes located in low lying areas.

I saw no evidence where wastewater could leave the collection system and enter the environment. Colbey, Codey and several others from the utility group were very helpful during the inspection.

If you have any questions please feel free to call me at 352-318-3321.
It has been a pleasure working with you.

Respectfully,

Jamie Hope
FRWA Wastewater Section

May 20, 2013

Mr. Ed Wallace
Ni Florida-Hudson
10913 Metronome
Houston, TX 77043

**RE: Summary of Current Conditions and Issues Being Addressed
As Of and Over and Above the Chloride Reduction Effort**

Dear Mr. Wallace:

Per your request, the following is a summary of the current conditions and issues being addressed as of and over and above the Chloride Reduction Effort this year.

Overview:

Although efforts to date have been successful at the Show Palace, Sunnydale and Flounder Master Pump Stations, let me assure you that Utility Group of Florida, LLC (UGFL) has not slowed down or stopped its continuing efforts to reduce chlorides into your Del Mar Master Pump Station.

Chloride levels at Show Palace (year/ppm):

	Chloride PPM
2008	132
2009	358
2010	197
2011	113
2012	104
2013	140

As you can see from the results above, the chloride levels rose in 2009. In the years of 2010 to present, the chloride levels remain below the 250 ppm threshold or target. It should be noted the Show Palace has its own well and is not supplied water by Hudson Water Works.

Chloride levels at Sunnydale (year/ppm):

	Chloride PPM
2008	212
2009	165
2010	124
2011	113
2012	109
2013	164

As you can see from the results above, the chloride levels dropped continuously since 2008 until this year. In the years of 2008 to present, the chloride levels remain below the 250 ppm threshold or target. It should be noted the homes located on Sunnydale are supplied water by Hudson Water Works. It is our belief that a number of repairs were made to homes in this area as a result of accidental and purposeful breaking (by the customer) of clean-outs and Elder Valves. It is my further belief that there has been a rise in the amount of tampering in this area this year. Our technicians have been directed to inspect the condition of the clean-outs and Elder Valves on a weekly basis and report problems immediately.

We have also initiated a plan to install Elder Valves at each home in this area. The installation will include the placement of a concrete valve pit over the top of the Elder Valve in an attempt to minimize the ability of a customer to accidentally or purposefully cause damage to the collection system.

Chloride levels at Flounder (year/ppm):

	Chloride PPM
2008	169
2009	226
2010	181
2011	169
2012	172
2013	366

As you can see from the results above, the chloride levels dropped continuously since 2008 until this year. In the years of 2008 to 2012, the chloride levels remain below the 250 ppm threshold or target. It should be noted the homes located in the area flowing to Flounder are supplied water by Hudson Water Works.

It is our belief that a number of repairs were made to homes in this area as a result of accidental and purposeful breaking (by the customer) of clean-outs and Elder Valves. It is my further belief that the amount of tampering is not the significant factor for the elevated readings. Our technicians have been directed to inspect the condition of the clean-outs and Elder Valves on a monthly basis and report problems immediately.

We are in the process of reviewing data that has recently been made available to us by the Mission Units to identify areas of concern and narrow down the size of these areas to allow us to identify and repair the contributors quickly and efficiently.

Chloride levels at Del Mar (year/ppm):

	Chloride PPM
2008	588
2009	720
2010	505
2011	466
2012	668
2013	2375

As you can see from the results above, the chloride levels dropped continuously since 2008 until 2012. In the years of 2008 to present, the chloride levels remain above the 250 ppm threshold or target. It should be noted the homes located on Del Mar are supplied water by Hudson Water Works and Pasco County.

It is our belief that a number of repairs were made to homes in this area as a result of accidental and purposeful breaking (by the customer) of clean-outs and Elder Valves. It is my further belief that the amount of tampering is not the significant factor for the elevated readings. Our technicians and meter readers have been directed to inspect the condition of the clean-outs and Elder Valves on a monthly basis and report problems immediately.

We are in the process of reviewing data that has recently been made available to us by the Mission Units to identify areas of concern and narrow down the size of these areas to allow us to identify and repair the contributors quickly and efficiently.

Efforts to Date:

1. UGFL used its underground camera to perform video inspection of 13,502 feet of the collection system.
2. Key Engineering identified seven areas and UGFL made significant repairs at those identified areas.
3. UGFL inspected manholes at high tide to determine potential increases in flow.
4. UGFL installed inflow protectors on all manholes believed to contribute to the I & I issue.
5. UGFL added composite samplers at Delmar and Flounder Master Pump Stations.
6. UGFL completed the installation of Mission Units to monitor pump flow and comparing that data with tide charts to determine areas with salt water intrusion.

Once Mission Units were installed, we were able to clearly identify irregular pump activity during high tides, indicating reoccurrence of saltwater intrusion in areas previously repaired.

During the last two years, Verizon has completed the installation of a new underground "FiOS" fiber optic cable system throughout the entire service area. Throughout the completion of the Verizon project, a number of incidents occurred in which the collection system was compromised and required immediate repair. As UGFL identified the problems, Verizon worked to complete the repairs or reimburse UGFL for the repairs deemed necessary as a result of the construction.

Unfortunately, the Verizon project was performed after the initial video inspection of the system, and the identification and completion of a number of deficiencies and the required repairs which brought the chloride levels in the Del Mar Master Lift Station into the mid hundreds.

We are in the process and will continue to investigate those areas to determine what damage, if any, has been made to our system. Presently,

areas of concern, specifically higher than normal flows, are being identified by the Mission Units in a number of areas throughout the collection system during and within two hours after each high tide. As we continue to identify these areas of concern, we are prioritizing all areas that would flow or be pumped into the Del Mar Master Lift Station. Those areas will be repaired first with the other areas to follow once we have the chlorides flowing into the Del Mar Lift Station under control.

Summary:

We believe UGFL is complying with the terms of our agreement with you to maintain the standards dictated in your contract with the County as is feasibly possible within the confines of existing budget limitations. It is important to remember that tap water enters the system with a chloride level somewhere in the 150 to 175 ppm level so it does not take much of a breach to bring our samples over the 250 level. As long as we are engaged as the operator for Hudson Utilities we will continue to keep you updated on I & I issues that affect the chloride levels flowing into your system and make every effort to identify and repair those areas affecting the chloride levels in your system as quickly as possible.

Further, it has been our goal during your ownership to kept SSO's (Sanitary Sewer Overflows) to a minimum, even during unusual storms that affected the entire geographic area and made sure that our response time was sufficient to keep wastewater out of the neighboring ecosystem. If you have any questions or need any additional information please contact me.

Sincerely yours,

John Wittenzellner Jr.
President

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
04/29/13	NTT	Sunny Dale	118
04/29/13	NTT	Show Palace	92
04/29/13	NTT	Flounder	177
04/29/13	NTT	Delmar	800
04/22/13	NTT	Sunny Dale	106
04/22/13	NTT	Show Palace	106
04/22/13	NTT	Flounder	188
04/22/13	NTT	Delmar	800
04/15/13	NTT	Sunny Dale	118
04/15/13	NTT	Show Palace	95
04/15/13	NTT	Flounder	173
04/15/13	NTT	Delmar	800
04/08/13	NTT	Sunny Dale	118
04/08/13	NTT	Show Palace	105
04/08/13	NTT	Flounder	180
04/08/13	NTT	Delmar	800
04/11/13	NTT	Flounder	200
04/11/13	NTT	Delmar	3500
04/04/13	NTT	Flounder	200
04/04/13	NTT	Delmar	2200
04/01/13	NTT	Sunny Dale	106
04/01/13	NTT	Show Palace	95
04/01/13	NTT	Flounder	177
04/01/13	NTT	Delmar	800
03/28/13	NTT	Flounder	180
03/28/13	NTT	Delmar	1500
03/25/13	NTT	Sunny Dale	118
03/25/13	NTT	Show Palace	85
03/25/13	NTT	Flounder	173
03/25/13	NTT	Delmar	800
03/18/13	NTT	Sunny Dale	106
03/18/13	NTT	Show Palace	106
03/18/13	NTT	Flounder	184
03/18/13	NTT	Delmar	800

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
03/14/13	NTT	Flounder	280
03/14/13	NTT	Delmar	2500
03/11/13	NTT	Sunny Dale	118
03/11/13	NTT	Show Palace	95
03/11/13	NTT	Flounder	177
03/11/13	NTT	Delmar	800
03/07/13	NTT	Flounder	200
03/07/13	NTT	Delmar	1600
03/04/13	NTT	Sunny Dale	106
03/04/13	NTT	Show Palace	92
03/04/13	NTT	Flounder	180
03/04/13	NTT	Delmar	800
02/28/13	NTT	Flounder	310
02/28/13	NTT	Delmar	1800
02/25/13	NTT	Sunny Dale	131
02/25/13	NTT	Show Palace	106
02/25/13	NTT	Flounder	177
02/25/13	NTT	Delmar	800
02/21/13	NTT	Flounder	340
02/21/13	NTT	Delmar	1600
02/18/13	NTT	Sunny Dale	118
02/18/13	NTT	Show Palace	95
02/18/13	NTT	Flounder	173
02/18/13	NTT	Delmar	800
02/14/13	NTT	Flounder	320
02/14/13	NTT	Delmar	2100
02/11/13	NTT	Sunny Dale	113
02/11/13	NTT	Show Palace	102
02/11/13	NTT	Flounder	192
02/11/13	NTT	Delmar	800
02/07/13	NTT	Flounder	310
02/07/13	NTT	Delmar	1800

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
02/04/13	NTT	Sunny Dale	124
02/04/13	NTT	Show Palace	92
02/04/13	NTT	Flounder	229
02/04/13	NTT	Delmar	800
02/01/13	NTT	Flounder	340
02/01/13	NTT	Delmar	2500
01/28/13	NTT	Sunny Dale	113
01/28/13	NTT	Show Palace	102
01/28/13	NTT	Flounder	209
01/28/13	NTT	Delmar	800
01/24/13	NTT	Flounder	300
01/24/13	NTT	Delmar	1100
01/21/13	NTT	Sunny Dale	124
01/21/13	NTT	Show Palace	113
01/21/13	NTT	Flounder	229
01/21/13	NTT	Delmar	800
01/17/13	NTT	Flounder	320
01/17/13	NTT	Delmar	1900
01/14/13	NTT	Sunny Dale	113
01/14/13	NTT	Show Palace	92
01/14/13	NTT	Flounder	192
01/14/13	NTT	Delmar	800
01/12/13	NTT	Flounder	330
01/12/13	NTT	Delmar	1200
01/07/13	NTT	Sunny Dale	124
01/07/13	NTT	Show Palace	113
01/07/13	NTT	Flounder	229
01/07/13	NTT	Delmar	800
12/30/12	NTT	Sunny Dale	113
12/30/12	NTT	Show Palace	102
12/30/12	NTT	Flounder	192
12/30/12	NTT	Delmar	800

Hudson L/S Chloride Results
 (NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
12/24/12	NTT	Sunny Dale	124
12/24/12	NTT	Show Palace	113
12/24/12	NTT	Flounder	163
12/24/12	NTT	Delmar	800
12/17/12	NTT	Sunny Dale	113
12/17/12	NTT	Show Palace	92
12/17/12	NTT	Flounder	177
12/17/12	NTT	Delmar	800
12/10/12	NTT	Sunny Dale	124
12/10/12	NTT	Show Palace	102
12/10/12	NTT	Flounder	192
12/10/12	NTT	Delmar	800
12/03/12	NTT	Sunny Dale	113
12/03/12	NTT	Show Palace	102
12/03/12	NTT	Flounder	209
12/03/12	NTT	Delmar	800
11/26/12	NTT	Sunny Dale	105
11/26/12	NTT	Show Palace	105
11/26/12	NTT	Flounder	188
11/26/12	NTT	Delmar	800
11/19/12	NTT	Sunny Dale	118
11/19/12	NTT	Show Palace	95
11/19/12	NTT	Flounder	173
11/19/12	NTT	Delmar	800
11/12/12	NTT	Sunny Dale	106
11/12/12	NTT	Show Palace	118
11/12/12	NTT	Flounder	158
11/12/12	NTT	Delmar	800
11/05/12	NTT	Sunny Dale	118
11/05/12	NTT	Show Palace	131
11/05/12	NTT	Flounder	188
11/05/12	NTT	Delmar	800
10/29/12	NTT	Sunny Dale	106
10/29/12	NTT	Show Palace	95
10/29/12	NTT	Flounder	173

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
10/29/12	NTT	Delmar	800
10/22/12	NTT	Sunny Dale	106
10/22/12	NTT	Show Palace	118
10/22/12	NTT	Flounder	158
10/22/12	NTT	Delmar	800
10/15/12	NTT	Sunny Dale	118
10/15/12	NTT	Show Palace	105
10/15/12	NTT	Flounder	173
10/15/12	NTT	Delmar	800
10/08/12	NTT	Sunny Dale	105
10/08/12	NTT	Show Palace	96
10/08/12	NTT	Flounder	158
10/08/12	NTT	Delmar	800
10/01/12	NTT	Sunny Dale	131
10/01/12	NTT	Show Palace	118
10/01/12	NTT	Flounder	180
10/01/12	NTT	Delmar	800
09/24/12	NTT	Sunny Dale	144
09/24/12	NTT	Show Palace	106
09/24/12	NTT	Flounder	173
09/24/12	NTT	Delmar	800
09/17/12	NTT	Sunny Dale	118
09/17/12	NTT	Show Palace	105
09/17/12	NTT	Flounder	173
09/17/12	NTT	Delmar	800
09/10/12	NTT	Sunny Dale	118
09/10/12	NTT	Show Palace	105
09/10/12	NTT	Flounder	173
09/10/12	NTT	Delmar	800
09/03/12	NTT	Sunny Dale	105
09/03/12	NTT	Show Palace	95
09/03/12	NTT	Flounder	158
09/03/12	NTT	Delmar	800
08/20/12	NTT	Sunny Dale	105

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
08/20/12	NTT	Show Palace	95
08/20/12	NTT	Flounder	173
08/20/12	NTT	Delmar	600
08/13/12	NTT	Sunny Dale	118
08/13/12	NTT	Show Palace	105
08/13/12	NTT	Flounder	144
08/13/12	NTT	Delmar	600
08/06/12	NTT	Sunny Dale	131
08/06/12	NTT	Show Palace	118
08/06/12	NTT	Flounder	131
08/06/12	NTT	Delmar	600
07/30/12	NTT	Sunny Dale	95
07/30/12	NTT	Show Palace	105
07/30/12	NTT	Flounder	158
07/30/12	NTT	Delmar	600
07/23/12	NTT	Sunny Dale	144
07/23/12	NTT	Show Palace	95
07/23/12	NTT	Flounder	173
07/23/12	NTT	Delmar	600
07/16/12	NTT	Sunny Dale	131
07/16/12	NTT	Show Palace	118
07/16/12	NTT	Flounder	158
07/16/12	NTT	Delmar	600
07/09/12	NTT	Sunny Dale	118
07/09/12	NTT	Show Palace	105
07/09/12	NTT	Flounder	144
07/09/12	NTT	Delmar	600
07/02/12	NTT	Sunny Dale	105
07/02/12	NTT	Show Palace	131
07/02/12	NTT	Flounder	173
07/02/12	NTT	Delmar	600
06/13/12	NTT	Sunny Dale	95
06/13/12	NTT	Show Palace	105
06/13/12	NTT	Flounder	188
06/13/12	NTT	Delmar	600

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
04/30/12	NTT	Delmar	600
04/23/12	NTT	Sunny Dale	105
04/23/12	NTT	Show Palace	95
04/23/12	NTT	Flounder	158
04/23/12	NTT	Delmar	600
04/16/12	NTT	Sunny Dale	95
04/16/12	NTT	Show Palace	105
04/16/12	NTT	Flounder	173
04/16/12	NTT	Delmar	600
04/09/12	NTT	Sunny Dale	105
04/09/12	NTT	Show Palace	95
04/09/12	NTT	Flounder	488
04/09/12	NTT	Delmar	600
04/02/12	NTT	Sunny Dale	95
04/02/12	NTT	Show Palace	105
04/02/12	NTT	Flounder	158
04/02/12	NTT	Delmar	600
03/26/12	NTT	Sunny Dale	105
03/26/12	NTT	Show Palace	118
03/26/12	NTT	Flounder	188
03/26/12	NTT	Delmar	600
03/19/12	NTT	Sunny Dale	105
03/19/12	NTT	Show Palace	131
03/19/12	NTT	Flounder	173
03/19/12	NTT	Delmar	600
03/12/12	NTT	Sunny Dale	95
03/12/12	NTT	Show Palace	118
03/12/12	NTT	Flounder	144
03/12/12	NTT	Delmar	600
03/05/12	NTT	Sunny Dale	105
03/05/12	NTT	Show Palace	105
03/05/12	NTT	Flounder	158
03/05/12	NTT	Delmar	600

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
02/27/12	NTT	Sunny Dale	105
02/27/12	NTT	Show Palace	95
02/27/12	NTT	Flounder	173
02/27/12	NTT	Delmar	600
02/20/12	NTT	Sunny Dale	118
02/20/12	NTT	Show Palace	118
02/20/12	NTT	Flounder	158
02/20/12	NTT	Delmar	600
02/06/12	NTT	Sunny Dale	118
02/06/12	NTT	Show Palace	95
02/06/12	NTT	Flounder	173
02/06/12	NTT	Delmar	600
01/30/12	NTT	Sunny Dale	131
01/30/12	NTT	Show Palace	105
01/30/12	NTT	Flounder	188
01/30/12	NTT	Delmar	600
01/23/12	NTT	Sunny Dale	118
01/23/12	NTT	Show Palace	118
01/23/12	NTT	Flounder	173
01/23/12	NTT	Delmar	600
01/16/12	NTT	Sunny Dale	95
01/16/12	NTT	Show Palace	105
01/16/12	NTT	Flounder	158
01/16/12	NTT	Delmar	600
01/09/12	NTT	Sunny Dale	105
01/09/12	NTT	Show Palace	95
01/09/12	NTT	Flounder	173
01/09/12	NTT	Delmar	600
01/02/12	NTT	Sunny Dale	95
01/02/12	NTT	Show Palace	105
01/02/12	NTT	Flounder	158
01/02/12	NTT	Delmar	600
04/25/11	NTT	Sunny Dale	136
04/25/11	NTT	Show Palace	102
04/25/11	NTT	Flounder	163

Hudson L/S Chloride Results
 (NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
04/25/11	NTT	Delmar	383
04/18/11	NTT	Sunny Dale	113
04/18/11	NTT	Show Palace	92
04/18/11	NTT	Flounder	149
04/18/11	NTT	Delmar	444
04/11/11	NTT	Sunny Dale	124
04/11/11	NTT	Show Palace	102
04/11/11	NTT	Flounder	192
04/11/11	NTT	Delmar	477
04/01/11	NTT	Sunny Dale	92
04/01/11	NTT	Show Palace	102
04/01/11	NTT	Flounder	149
04/01/11	NTT	Delmar	412
03/28/11	NTT	Sunny Dale	102
03/28/11	NTT	Show Palace	92
03/28/11	NTT	Flounder	136
03/28/11	NTT	Delmar	513
03/21/11	NTT	Sunny Dale	113
03/21/11	NTT	Show Palace	136
03/21/11	NTT	Flounder	163
03/21/11	NTT	Delmar	477
03/13/11	NTT	Sunny Dale	124
03/13/11	NTT	Show Palace	136
03/13/11	NTT	Flounder	209
03/13/11	NTT	Delmar	553
03/07/11	NTT	Sunny Dale	102
03/07/11	NTT	Show Palace	92
03/07/11	NTT	Flounder	149
03/07/11	NTT	Delmar	477
02/28/11	NTT	Sunny Dale	124
02/28/11	NTT	Show Palace	102
02/28/11	NTT	Flounder	149
02/28/11	NTT	Delmar	477
02/21/11	NTT	Sunny Dale	136

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
02/21/11	NTT	Show Palace	124
02/21/11	NTT	Flounder	163
02/21/11	NTT	Delmar	444
02/14/11	NTT	Sunny Dale	92
02/14/11	NTT	Show Palace	136
02/14/11	NTT	Flounder	192
02/14/11	NTT	Delmar	513
02/07/11	NTT	Sunny Dale	124
02/07/11	NTT	Show Palace	149
02/07/11	NTT	Flounder	209
02/07/11	NTT	Delmar	444
01/31/11	NTT	Sunny Dale	102
01/31/11	NTT	Show Palace	149
01/31/11	NTT	Flounder	192
01/31/11	NTT	Delmar	553
01/24/11	NTT	Sunny Dale	102
01/24/11	NTT	Show Palace	124
01/24/11	NTT	Flounder	149
01/24/11	NTT	Delmar	477
01/17/11	NTT	Sunny Dale	136
01/17/11	NTT	Show Palace	82
01/17/11	NTT	Flounder	177
01/17/11	NTT	Delmar	513
01/10/11	NTT	Sunny Dale	102
01/10/11	NTT	Show Palace	82
01/10/11	NTT	Flounder	149
01/10/11	NTT	Delmar	331
01/03/11	NTT	Sunny Dale	124
01/03/11	NTT	Show Palace	92
01/03/11	NTT	Flounder	177
01/03/11	NTT	Delmar	477
12/27/10	NTT	Sunny Dale	113
12/27/10	NTT	Show Palace	124
12/27/10	NTT	Flounder	192
12/27/10	NTT	Delmar	444

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
12/20/10	NTT	Sunny Dale	102
12/20/10	NTT	Show Palace	124
12/20/10	NTT	Flounder	149
12/20/10	NTT	Delmar	444
12/06/10	NTT	Sunny Dale	113
12/06/10	NTT	Show Palace	177
12/06/10	NTT	Flounder	129
12/06/10	NTT	Delmar	513
11/29/10	NTT	Sunny Dale	102
11/29/10	NTT	Show Palace	163
11/29/10	NTT	Flounder	136
11/29/10	NTT	Delmar	477
11/22/10	NTT	Sunny Dale	113
11/22/10	NTT	Show Palace	102
11/22/10	NTT	Flounder	149
11/22/10	NTT	Delmar	383
11/15/10	NTT	Sunny Dale	92
11/15/10	NTT	Show Palace	113
11/15/10	NTT	Flounder	149
11/15/10	NTT	Delmar	412
11/08/10	NTT	Sunny Dale	163
11/08/10	NTT	Show Palace	113
11/08/10	NTT	Flounder	136
11/08/10	NTT	Delmar	444
11/01/10	NTT	Sunny Dale	124
11/01/10	NTT	Show Palace	136
11/01/10	NTT	Flounder	163
11/01/10	NTT	Delmar	553
10/25/10	NTT	Sunny Dale	113
10/25/10	NTT	Show Palace	92
10/25/10	NTT	Flounder	244
10/25/10	NTT	Delmar	513
10/18/10	NTT	Sunny Dale	209
10/18/10	NTT	Show Palace	102

Hudson L/S Chloride Results
 (NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
10/18/10	NTT	Flounder	244
10/18/10	NTT	Delmar	553
10/11/10	NTT	Sunny Dale	149
10/11/10	NTT	Show Palace	113
10/11/10	NTT	Flounder	177
10/11/10	NTT	Delmar	412
10/04/10	NTT	Sunny Dale	177
10/04/10	NTT	Show Palace	285
10/04/10	NTT	Flounder	192
10/04/10	NTT	Delmar	383
09/27/10	NTT	Sunny Dale	113
09/27/10	NTT	Show Palace	244
09/27/10	NTT	Flounder	163
09/27/10	NTT	Delmar	513
09/20/10	NTT	Sunny Dale	124
09/20/10	NTT	Show Palace	209
09/20/10	NTT	Flounder	163
09/20/10	NTT	Delmar	513
09/13/10	NTT	Sunny Dale	163
09/13/10	NTT	Show Palace	289
09/13/10	NTT	Flounder	173
09/13/10	NTT	Delmar	489
09/06/10	NTT	Sunny Dale	117
09/06/10	NTT	Show Palace	192
09/06/10	NTT	Flounder	177
09/06/10	NTT	Delmar	383
08/30/10	NTT	Sunny Dale	102
08/30/10	NTT	Show Palace	177
08/30/10	NTT	Flounder	57
08/30/10	NTT	Delmar	383
08/23/10	NTT	Sunny Dale	124
08/23/10	NTT	Show Palace	136
08/23/10	NTT	Flounder	192
08/23/10	NTT	Delmar	412

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
08/16/10	NTT	Sunny Dale	113
08/16/10	NTT	Show Palace	177
08/16/10	NTT	Flounder	226
08/16/10	NTT	Delmar	513
08/09/10	NTT	Sunny Dale	113
08/09/10	NTT	Show Palace	124
08/09/10	NTT	Flounder	163
08/09/10	NTT	Delmar	553
08/03/10	NTT	Sunny Dale	163
08/03/10	NTT	Show Palace	177
08/03/10	NTT	Flounder	192
08/03/10	NTT	Delmar	553
07/26/10	NTT	Sunny Dale	177
07/26/10	NTT	Show Palace	244
07/26/10	NTT	Flounder	209
07/26/10	NTT	Delmar	412
07/19/10	NTT	Sunny Dale	163
07/19/10	NTT	Show Palace	113
07/19/10	NTT	Flounder	177
07/19/10	NTT	Delmar	553
07/12/10	NTT	Sunny Dale	177
07/12/10	NTT	Show Palace	149
07/12/10	NTT	Flounder	244
07/12/10	NTT	Delmar	553
07/05/10	NTT	Sunny Dale	136
07/05/10	NTT	Show Palace	113
07/05/10	NTT	Flounder	177
07/05/10	NTT	Delmar	641
06/28/10	NTT	Sunny Dale	113
06/28/10	NTT	Show Palace	136
06/28/10	NTT	Flounder	177
06/28/10	NTT	Delmar	633
06/21/10	NTT	Sunny Dale	113
06/21/10	NTT	Show Palace	177
06/21/10	NTT	Flounder	113

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
06/21/10	NTT	Delmar	800
06/14/10	NTT	Sunny Dale	117
06/14/10	NTT	Show Palace	104
06/14/10	NTT	Flounder	231
06/14/10	NTT	Delmar	1591
06/07/10	NTT	Sunny Dale	104
06/07/10	NTT	Show Palace	117
06/07/10	NTT	Flounder	271
06/07/10	NTT	Delmar	549
05/31/10	NTT	Sunny Dale	104
05/31/10	NTT	Show Palace	92
05/31/10	NTT	Flounder	177
05/31/10	NTT	Delmar	549
05/25/10	NTT	Sunny Dale	117
05/25/10	NTT	Show Palace	104
05/25/10	NTT	Flounder	177
05/25/10	NTT	Delmar	479
05/17/10	NTT	Sunny Dale	104
05/17/10	NTT	Show Palace	177
05/17/10	NTT	Flounder	104
05/17/10	NTT	Delmar	569
05/10/10	NTT	Sunny Dale	117
05/10/10	NTT	Show Palace	81
05/10/10	NTT	Flounder	161
05/10/10	NTT	Delmar	389
05/03/10	NTT	Sunny Dale	104
05/03/10	NTT	Show Palace	104
05/03/10	NTT	Flounder	177
05/03/10	NTT	Delmar	417
04/26/10	NTT	Sunny Dale	104
04/26/10	NTT	Show Palace	549
04/26/10	NTT	Flounder	292
04/26/10	NTT	Delmar	479
04/19/10	NTT	Sunny Dale	104

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
04/19/10	NTT	Show Palace	104
04/19/10	NTT	Flounder	177
04/19/10	NTT	Delmar	314
04/12/10	NTT	Sunny Dale	104
04/12/10	NTT	Show Palace	417
04/12/10	NTT	Flounder	130
04/12/10	NTT	Delmar	479
04/05/10	NTT	Sunny Dale	104
04/05/10	NTT	Show Palace	513
04/05/10	NTT	Flounder	177
04/05/10	NTT	Delmar	417
03/29/10	NTT	Sunny Dale	117
03/29/10	NTT	Show Palace	633
03/29/10	NTT	Flounder	177
03/29/10	NTT	Delmar	363
03/22/10	NTT	Sunny Dale	104
03/22/10	NTT	Show Palace	177
03/22/10	NTT	Flounder	363
03/22/10	NTT	Delmar	549
03/08/10	NTT	Sunny Dale	45
03/08/10	NTT	Show Palace	104
03/08/10	NTT	Flounder	177
03/08/10	NTT	Delmar	513
03/01/10	NTT	Sunny Dale	240
03/01/10	NTT	Show Palace	298
03/01/10	NTT	Flounder	250
03/01/10	NTT	Delmar	508
02/22/10	NTT	Sunny Dale	117
02/22/10	NTT	Show Palace	633
02/22/10	NTT	Flounder	417
02/22/10	NTT	Delmar	271
02/15/10	NTT	Sunny Dale	104
02/15/10	NTT	Show Palace	81
02/15/10	NTT	Flounder	177
02/15/10	NTT	Delmar	513

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
02/08/10	NTT	Sunny Dale	132
02/08/10	NTT	Show Palace	177
02/08/10	NTT	Flounder	177
02/08/10	NTT	Delmar	417
02/01/10	NTT	Sunny Dale	104
02/01/10	NTT	Show Palace	130
02/01/10	NTT	Flounder	177
02/01/10	NTT	Delmar	363
01/25/10	NTT	Sunny Dale	117
01/25/10	NTT	Show Palace	389
01/25/10	NTT	Flounder	145
01/25/10	NTT	Delmar	513
01/18/10	NTT	Sunny Dale	161
01/18/10	NTT	Show Palace	549
01/18/10	NTT	Flounder	177
01/18/10	NTT	Delmar	447
01/11/10	NTT	Sunny Dale	117
01/11/10	NTT	Show Palace	363
01/11/10	NTT	Flounder	177
01/11/10	NTT	Delmar	479
01/04/10	NTT	Sunny Dale	92
01/04/10	NTT	Show Palace	104
01/04/10	NTT	Flounder	177
01/04/10	NTT	Delmar	417
12/28/09	NTT	Sunny Dale	124
12/28/09	NTT	Show Palace	113
12/28/09	NTT	Flounder	177
12/28/09	NTT	Delmar	513
12/21/09	NTT	Sunny Dale	124
12/21/09	NTT	Show Palace	383
12/21/09	NTT	Flounder	136
12/21/09	NTT	Delmar	477
12/16/09	NTT	Flounder	244
12/16/09	NTT	Delmar	631

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
12/14/09	NTT	Sunny Dale	124
12/14/09	NTT	Show Palace	553
12/14/09	NTT	Flounder	163
12/14/09	NTT	Delmar	595
12/07/09	NTT	Sunny Dale	136
12/07/09	NTT	Show Palace	595
12/07/09	NTT	Flounder	192
12/07/09	NTT	Delmar	412
11/30/09	NTT	Sunny Dale	113
11/30/09	NTT	Show Palace	513
11/30/09	NTT	Flounder	226
11/30/09	NTT	Delmar	641
11/23/09	NTT	Sunny Dale	102
11/23/09	NTT	Show Palace	113
11/23/09	NTT	Flounder	226
11/23/09	NTT	Delmar	513
11/16/09	NTT	Sunny Dale	111
11/16/09	NTT	Show Palace	160
11/16/09	NTT	Flounder	175
11/16/09	NTT	Delmar	547
11/09/09	NTT	Sunny Dale	102
11/09/09	NTT	Show Palace	192
11/09/09	NTT	Flounder	136
11/09/09	NTT	Delmar	553
11/02/09	NTT	Sunny Dale	111
11/02/09	NTT	Show Palace	56
11/02/09	NTT	Flounder	100
11/02/09	NTT	Delmar	175
10/26/09	NTT	Sunny Dale	134
10/26/09	NTT	Show Palace	81
10/26/09	NTT	Flounder	326
10/26/09	NTT	Delmar	631
10/19/09	NTT	Sunny Dale	122
10/19/09	NTT	Show Palace	631

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
10/19/09	NTT	Flounder	223
10/19/09	NTT	Delmar	377
10/12/09	NTT	Sunny Dale	134
10/12/09	NTT	Show Palace	436
10/12/09	NTT	Flounder	223
10/12/09	NTT	Delmar	543
10/05/09	NTT	Sunny Dale	134
10/05/09	NTT	Show Palace	377
10/05/09	NTT	Flounder	175
10/05/09	NTT	Delmar	377
09/28/09	NTT	Sunny Dale	223
09/28/09	NTT	Show Palace	90
09/28/09	NTT	Flounder	190
09/28/09	NTT	Delmar	631
09/21/09	NTT	Sunny Dale	122
09/21/09	NTT	Show Palace	436
09/21/09	NTT	Flounder	147
09/21/09	NTT	Delmar	469
09/15/09	NTT	Sunny Dale	134
09/15/09	NTT	Show Palace	100
09/15/09	NTT	Flounder	326
09/15/09	NTT	Delmar	585
09/08/09	NTT	Sunny Dale	134
09/08/09	NTT	Show Palace	134
09/08/09	NTT	Flounder	160
09/08/09	NTT	Delmar	469
09/01/09	NTT	Sunny Dale	111
09/01/09	NTT	Show Palace	122
09/01/09	NTT	Flounder	260
09/01/09	NTT	Delmar	631
08/24/09	NTT	Sunny Dale	111
08/24/09	NTT	Show Palace	260
08/24/09	NTT	Flounder	206
08/24/09	NTT	Delmar	377

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
08/17/09	NTT	Sunny Dale	124
08/17/09	NTT	Show Palace	641
08/17/09	NTT	Flounder	163
08/17/09	NTT	Delmar	641
08/11/09	NTT	Sunny Dale	124
08/11/09	NTT	Show Palace	192
08/11/09	NTT	Flounder	349
08/11/09	NTT	Delmar	2227
08/03/09	NTT	Sunny Dale	113
08/03/09	NTT	Show Palace	92
08/03/09	NTT	Flounder	226
08/03/09	NTT	Delmar	641
07/27/09	NTT	Sunny Dale	136
07/27/09	NTT	Show Palace	113
07/27/09	NTT	Flounder	226
07/27/09	NTT	Delmar	645
07/20/09	NTT	Sunny Dale	264
07/20/09	NTT	Show Palace	553
07/20/09	NTT	Flounder	513
07/20/09	NTT	Delmar	383
07/13/09	NTT	Sunny Dale	136
07/13/09	NTT	Show Palace	244
07/13/09	NTT	Flounder	264
07/13/09	NTT	Delmar	704
07/06/09	NTT	Sunny Dale	113
07/06/09	NTT	Show Palace	102
07/06/09	NTT	Flounder	331
07/06/09	NTT	Delmar	1130
06/29/09	NTT	Sunny Dale	124
06/29/09	NTT	Show Palace	412
06/29/09	NTT	Flounder	192
06/29/09	NTT	Delmar	3122
06/22/09	NTT	Sunny Dale	124
06/22/09	NTT	Show Palace	226

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
06/22/09	NTT	Flounder	209
06/22/09	NTT	Delmar	3405
06/15/09	NTT	Sunny Dale	194
06/15/09	NTT	Show Palace	645
06/15/09	NTT	Flounder	449
06/15/09	NTT	Delmar	449
06/08/09	NTT	Sunny Dale	123
06/08/09	NTT	Show Palace	418
06/08/09	NTT	Flounder	146
06/08/09	NTT	Delmar	645
06/01/09	NTT	Sunny Dale	136
06/01/09	NTT	Show Palace	101
06/01/09	NTT	Flounder	178
06/01/09	NTT	Delmar	449
05/26/09	NTT	Sunny Dale	361
05/26/09	NTT	Show Palace	336
05/26/09	NTT	Flounder	149
05/26/09	NTT	Delmar	645
05/18/09	NTT	Sunny Dale	136
05/18/09	NTT	Show Palace	645
05/18/09	NTT	Flounder	312
05/18/09	NTT	Delmar	600
05/11/09	NTT	Sunny Dale	163
05/11/09	NTT	Show Palace	221
05/11/09	NTT	Flounder	211
05/11/09	NTT	Delmar	558
05/04/09	NTT	Sunny Dale	645
05/04/09	NTT	Show Palace	645
05/04/09	NTT	Flounder	361
05/04/09	NTT	Delmar	1033
04/27/09	NTT	Sunny Dale	449
04/27/09	NTT	Show Palace	268
04/27/09	NTT	Flounder	178
04/27/09	NTT	Delmar	558

Hudson L/S Chloride Results
 (NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
04/22/09	11:38	Flounder	336
04/22/09	11:50	Delmar	600
04/13/09	NTT	Sunny Dale	136
04/13/09	NTT	Show Palace	645
04/13/09	NTT	Flounder	178
04/13/09	NTT	Delmar	519
04/06/09	NTT	Sunny Dale	149
04/06/09	NTT	Show Palace	178
04/06/09	NTT	Flounder	248
04/06/09	NTT	Delmar	645
03/30/09	NTT	Sunny Dale	136
03/30/09	NTT	Show Palace	149
03/30/09	NTT	Flounder	149
03/30/09	NTT	Delmar	418
03/25/09	NTT	Sunny Dale	178
03/25/09	NTT	Show Palace	91
03/25/09	NTT	Flounder	248
03/25/09	NTT	Delmar	558
03/16/09	NTT	Sunny Dale	136
03/16/09	NTT	Show Palace	361
03/16/09	NTT	Flounder	163
03/16/09	NTT	Delmar	519
03/09/09	NTT	Sunny Dale	136
03/09/09	NTT	Show Palace	389
03/09/09	NTT	Flounder	149
03/09/09	NTT	Delmar	649
03/02/09	NTT	Sunny Dale	149
03/02/09	NTT	Show Palace	645
03/02/09	NTT	Flounder	123
03/02/09	NTT	Delmar	361
02/23/09	NTT	Sunny Dale	123
02/23/09	NTT	Show Palace	645
02/23/09	NTT	Flounder	136
02/23/09	NTT	Delmar	312

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
02/16/09	NTT	Sunny Dale	112
02/16/09	NTT	Show Palace	558
02/16/09	NTT	Flounder	123
02/16/09	NTT	Delmar	312
02/09/09	NTT	Sunny Dale	163
02/09/09	NTT	Show Palace	645
02/09/09	NTT	Flounder	163
02/09/09	NTT	Delmar	361
02/02/09	NTT	Sunny Dale	136
02/02/09	NTT	Show Palace	645
02/02/09	NTT	Flounder	136
02/02/09	NTT	Delmar	389
01/26/09	NTT	Sunny Dale	132
01/26/09	NTT	Show Palace	645
01/26/09	NTT	Flounder	149
01/26/09	NTT	Delmar	361
01/23/09	NTT	Sunny Dale	136
01/23/09	NTT	Show Palace	64
01/23/09	NTT	Flounder	123
01/23/09	NTT	Delmar	449
01/19/09	NTT	Sunny Dale	112
01/19/09	NTT	Show Palace	101
01/19/09	NTT	Flounder	336
01/19/09	NTT	Delmar	389
01/12/09	NTT	Sunny Dale	163
01/12/09	NTT	Show Palace	178
01/12/09	NTT	Flounder	248
01/12/09	NTT	Delmar	268
01/05/09	NTT	Sunny Dale	112
01/05/09	NTT	Show Palace	645
01/05/09	NTT	Flounder	178
01/05/09	NTT	Delmar	483
12/29/08	NTT	Sunny Dale	112
12/29/08	NTT	Show Palace	361
12/29/08	NTT	Flounder	149

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
12/29/08	NTT	Delmar	312
12/22/08	NTT	Sunny Dale	112
12/22/08	NTT	Show Palace	38
12/22/08	NTT	Flounder	112
12/22/08	NTT	Delmar	558
12/15/08	NTT	Sunny Dale	112
12/15/08	NTT	Show Palace	38
12/15/08	NTT	Flounder	112
12/15/08	NTT	Delmar	483
12/08/08	NTT	Sunny Dale	123
12/08/08	NTT	Show Palace	38
12/08/08	NTT	Flounder	112
12/08/08	NTT	Delmar	361
12/01/08	NTT	Sunny Dale	149
12/01/08	NTT	Show Palace	289
12/01/08	NTT	Flounder	123
12/01/08	NTT	Delmar	418
11/24/08	NTT	Sunny Dale	123
11/24/08	NTT	Show Palace	91
11/24/08	NTT	Flounder	112
11/24/08	NTT	Delmar	600
11/17/08	NTT	Sunny Dale	149
11/17/08	NTT	Show Palace	91
11/17/08	NTT	Flounder	123
11/17/08	NTT	Delmar	483
11/10/08	NTT	Sunny Dale	112
11/10/08	NTT	Show Palace	44
11/10/08	NTT	Flounder	123
11/10/08	NTT	Delmar	645
11/03/08	NTT	Sunny Dale	112
11/03/08	NTT	Show Palace	64
11/03/08	NTT	Flounder	112
11/03/08	NTT	Delmar	361
10/27/08	NTT	Sunny Dale	112

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
10/27/08	NTT	Show Palace	389
10/27/08	NTT	Flounder	194
10/27/08	NTT	Delmar	519
10/06/08	7:10	Sunny Dale	112
10/06/08	7:10	Flounder	101
10/06/08	7:10	Delmar	645
09/29/08	9:55	Sunny Dale	101
09/29/08	10:20	Flounder	136
09/29/08	9:45	Delmar	2037
09/16/08	NTT	Sunny Dale	106
09/16/08	NTT	Flounder	106
09/16/08	NTT	Delmar	2205
09/03/08	9:55	Sunny Dale	180
09/03/08	10:20	Flounder	140
09/03/08	9:45	Delmar	600
08/25/08	15:48	Sunny Dale	130
08/25/08	15:59	Flounder	140
08/25/08	16:11	Delmar	420
08/25/08	7:14	Sunny Dale	71
08/25/08	7:31	Flounder	130
08/25/08	7:41	Delmar	560
08/18/08	14:15	Sunny Dale	130
08/18/08	14:21	Flounder	190
08/18/08	14:37	Delmar	420
08/18/08	8:52	Sunny Dale	130
08/18/08	9:08	Flounder	160
08/18/08	9:20	Delmar	410
08/11/08	16:41	Sunny Dale	120
08/11/08	16:52	Flounder	210
08/11/08	17:04	Delmar	610
08/11/08	8:51	Sunny Dale	140
08/11/08	9:10	Flounder	200
08/11/08	8:20	Delmar	470

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
08/04/08	16:15	Sunny Dale	120
08/04/08	15:50	Flounder	150
08/04/08	15:20	Delmar	660
08/04/08	10:05	Sunny Dale	130
08/04/08	10:11	Flounder	220
08/04/08	10:17	Delmar	410
07/28/08	16:58	Sunny Dale	120
07/28/08	17:09	Flounder	160
07/28/08	16:40	Delmar	400
07/28/08	8:40	Sunny Dale	130
07/28/08	8:55	Flounder	180
07/28/08	9:01	Delmar	500
07/28/08	5:04	Sunny Dale	106
07/28/08	5:04	Flounder	152
07/28/08	5:04	Delmar	243
07/28/08	8:48	Sunny Dale	165
07/28/08	8:48	Flounder	165
07/28/08	8:48	Delmar	407
07/21/08	15:15	Sunny Dale	130
07/21/08	15:26	Flounder	130
07/21/08	15:38	Delmar	490
07/21/08	9:58	Sunny Dale	140
07/21/08	10:15	Flounder	120
07/21/08	10:23	Delmar	310
07/14/08	6:14	Sunny Dale	130
07/14/08	6:21	Flounder	150
07/14/08	6:29	Delmar	290
07/14/08	10:09	Sunny Dale	120
07/14/08	10:18	Flounder	110
07/14/08	10:27	Delmar	470
07/14/08	6:03	Sunny Dale	106
07/14/08	6:03	Flounder	139

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
07/14/08	6:03	Delmar	243
07/14/08	10:00	Sunny Dale	106
07/14/08	10:00	Flounder	106
07/14/08	10:00	Delmar	261
07/07/08	16:19	Sunny Dale	160
07/07/08	16:27	Flounder	480
07/07/08	14:30	Delmar	460
07/07/08	10:48	Sunny Dale	140
07/07/08	10:59	Flounder	160
07/07/08	11:09	Delmar	940
07/07/08	16:20	Sunny Dale	139
07/07/08	16:20	Flounder	510
07/07/08	16:20	Delmar	439
07/07/08	10:00	Sunny Dale	128
07/07/08	10:00	Flounder	165
07/07/08	10:00	Delmar	550
06/30/08	18:01	Sunny Dale	140
06/30/08	18:09	Flounder	210
06/30/08	18:17	Delmar	590
06/30/08	10:25	Sunny Dale	130
06/30/08	10:36	Flounder	160
06/30/08	10:00	Delmar	590
06/30/08	18:10	Sunny Dale	178
06/30/08	18:10	Flounder	97
06/30/08	18:10	Delmar	510
06/30/08	10:13	Sunny Dale	139
06/30/08	10:13	Flounder	326
06/30/08	10:13	Delmar	510
06/23/08	High Tide	Sunny Dale	152
06/23/08	High Tide	Flounder	152
06/23/08	High Tide	Delmar	473
06/23/08	10:15	Sunny Dale	160

Hudson L/S Chloride Results
(NTT = No Time Taken or Time Not Noted)

Date Sampled	Time	Location	Results
06/23/08	10:25	Flounder	230
06/23/08	10:45	Delmar	430
06/23/08	10:31	Sunny Dale	139
06/23/08	10:31	Flounder	225
06/23/08	10:31	Delmar	303
06/16/08	10:45	Sunny Dale	120
06/16/08	11:15	Flounder	140
06/16/08	11:00	Delmar	550
06/16/08	7:05	Sunny Dale	120
06/16/08	7:20	Flounder	150
06/16/08	7:38	Delmar	690
06/11/08	14:39	Sunny Dale	120
06/11/08	14:49	Flounder	270
06/11/08	14:59	Delmar	930
06/11/08	7:51	Sunny Dale	130
06/11/08	8:06	Flounder	440
06/11/08	8:15	Delmar	670
06/02/08	11:30	Sunny Dale	120
06/02/08	11:40	Flounder	220
06/02/08	11:48	Delmar	1200
06/02/08	7:05	Sunny Dale	120
06/02/08	7:10	Flounder	320
06/02/08	7:20	Delmar	990
05/27/08	12:44	Flounder	170
05/27/08	12:30	Delmar	2200
05/27/08	9:25	Flounder	180
05/27/08	9:15	Delmar	1800