ITN BACKGROUND FACT SHEET

PROCESS WASTEWATER MANAGEMENT

A process wastewater management plan has been developed and partially implemented to finish draining the projected free process wastewater inventory between July 2004 and November 2006. Thereafter, the volumes of process wastewater to be "consumed" (i.e., treated and discharged, transferred offsite, or evaporated) will diminish to approximately one-third of the current one million gallons per day (1.0 MGD) requirement and will consist principally of process water draining from the currently-saturated above grade gypsum stacks. The ongoing closure efforts will allow rainfall onto the site to drain offsite without the need for containment and treatment by isolating the rainfall from contamination potential through the use of high density polyethylene liners and graded and grassed soil cover.

This background document provides an overview of the current process wastewater management plan for the site. The contractor selected under the ITN will be required to develop and implement its own process water consumption and management plan as more fully described in the ITN scope of services.

The following sections present the:

1. Projected total discharge volume;
2. Range of discharge volumes;
3. Composition of discharge volumes;
4. Overview of the reverse osmosis treatment system; and
5. Overview of the lime precipitation treatment process.

1. Projected Total Discharge Volume

The water balance model for the Piney Point site developed by Ardaman & Associates (Ardaman) projects the need to "consume" (i.e., discharge, evaporate, or transfer offsite) one million gallons per day (1.0 MGD), or 365 million gallons (365 MM), during the next 16 months in order to maintain the planned schedule of depleting the ponded water inventory by December 2006. Of course, if rainfall in excess of the 55-inch average used

in the Ardaman model is experienced or if the rate of stack dewatering is higher than assumed, this target discharge volume may be raised.

2. Range of Discharge Volumes

Three water management alternatives have been selected to accomplish the required "consumption" during this time period: (1) two-pass reverse osmosis plus ion-exchange polishing treatment (RO), which will be discharged through Outfall 003; (2) double-lime precipitation plus aeration treatment (DBL), which also will be discharged through Outfall 003; and (3) construction of a floating spray evaporation system in the recently lined and closed north cell of the new gypsum stack. All surface discharges will flow through ditches and then into Bishop Harbor.

The total daily and annual discharge volumes will be controlled by the start up date and efficiency of the planned spray evaporation system, which is currently in the final engineering design stage. The most likely scenario consists of: (1) an October 1, 2004 start up date; and (2) a sustainable average evaporation rate of 200,000 gallons per day (gpd). If the evaporation system achieves higher annual average evaporation rates; the operation rate of the DBL system would be reduced commensurately.

Thus, the surface discharge volume will approximate 1.0 MGD during the first quarter of the fiscal year (i.e., July, August, and September 2004). Thereafter, the surface discharge volume will likely approximate 0.8 MGD.

3. Composition of Discharge Volumes

The water discharged over the 2005 fiscal year will consist of approximately equal volumes of RO and DBL treated water, 146 and 165 MM gallons, respectively. However, on a daily-average monthly basis, the RO volumes could range from 400,000 to 700,000 gpd because the vendor's daily production rate is not being contractually restricted. Therefore, the vendor could choose to operate at its maximum capacity until 146 MM gallons have been treated and then demobilize. This scenario could result in 600,000-700,000 gpd of RO production through January 2005, and then no RO production thereafter.

RO production also could end prematurely due to increasing levels of dissolved minerals in the untreated process water caused by use of the RO process. Use of the RO process since the end of the 2003 rainy season has caused the specific conductance of the untreated water to more than double. Further concentration will resume again this fall, such that the point when the water has become so concentrated with RO reject to be untreatable by RO may come next spring.

Treatment using the DBL system will simply be the minimum volume needed to reach the water balance target, after first deducting the volume produced by the other alternatives, as this circuit is the only treatment alternative with excess capacity that is sustainable through closure. During the third quarter before the spray evaporation system starts, the DBL production rate will be higher than during the remainder of the year, unless the RO system shuts down as described above. Considering all of these variables, our best estimate is the DBL production will range from 400,000 to 600,000 gpd this summer, and between 200,000 and 800,000 gpd for the remainder of the year.

Table 1 presents a summary of the process wastewater management plan and Table 2 provides recent analyses that describes the quality of the untreated, ponded, process wastewater inventory.

TABLE 1
FISCAL YEAR 2005
PROCESS WASTEWATER MANAGEMENT PLAN

Alternative	Jul-Sept. 2003 (gpd	Oct-Dec 2003 (gpd)	Jan-Mar 2004 (gpd)	Apr-June 2004 (gpd)	FY 2005 (MM Gals)
Total Required	1,000,000	1,000,000	1,000,000	1,000,000	365
Evaporation	-0-	0-200,000	50,000-200,000	50,000-200,000	54
Reverse Osmosis	400,000-700,000	400,000-700,000	400,000-700,000	0-400,000	146
Lime Percip.	300,000-600,000	100,000-600,000	100,000-550,000	400,000-950,000	165

4. Overview of Reverse Osmosis Capacity

A contract is in effect with U.S. Filter Ionpure, Inc. to operate a mobile reverse osmosis based treatment system to treat process wastewater prior to discharge during fiscal year

2005. The Agreement is based upon the request for bids enclosed as Attachment A. As noted in Attachment A, the Agreement calls for U.S. Filter to treat 146 million gallons in fiscal year 2005, unless they experience influent water quality which is too turbid or concentrated to treat with the existing equipment.

In actuality, reverse osmosis is used in only two of the six-step treatment process. Figure 1 illustrates the process flow diagram employed by U.S. Filter. Note that the use of separate bed ion exchange columns occurs on only about 20 percent of the total flow, with the mobile ion exchange columns being regenerated at U.S. Filter's Jacksonville, Florida facility.

Tables 3 and 4 present recent data depicting the quality of the U.S. Filter final product discharged through Outfall 003 and the rejected water that is returned to the process wastewater inventory, respectively.

5. Overview of Lime Precipitation Treatment Process

The Piney Point facility was equipped with a conventional two-stage lime precipitation wastewater treatment circuit in the late 1970s in order to confirm with the "best available technology" technology-based effluent guidelines published in Title 40 of the Code of Federal Regulations Part 418.12. The treatment circuit was initially designed to precipitate fluoride, phosphorus, metals, and radionuclides.

The treatment equipment includes:

- One 80-ton lime silo;
- Two lime slakers;
- Two lime slurry/wastewater contact mixing chambers;
- Two concrete in-ground traveling rake-type clarifiers;
- Associated piping, instrumentation, and electrical infrastructure; and
- A post-treatment sedimentation pond.

Since its initial construction, the following modifications have been made to the lime treatment circuit:

- In 1985, the sedimentation pond was converted to an ammonia removal system by operating the second stage of the circuit at a pH of >11.5 and installing a spray type air stripping sprayfield in the sedimentation pond;
- In early 2003, four additional ammonia spray ponds were installed to achieve additional ammonia removal beyond the 95 percent efficiency achieved in the initial pond;
- In 2003, the system was modified by accomplishing first stage treatment in the north cell of the south cooling pond; and
- In 2003, the second stage lime sludge density was increased to approximately 10 percent solids by implementing a sludge recirculation procedure in the second stage clarifier.

Currently the circuit is operated in the following manner:

1. Untreated process water is transferred from the south cell of the south cooling pond into the north cell of the south cooling pond. As water is being transferred into the north cell of the south cooling pond, slaked lime is added as necessary to raise the pH of the water inventory in the north cell of the south cooling pond to between 4.5 and 5.5 standard units. The lime added has been slaked at the wastewater treatment circuit prior to mixing in transfer pumps and pipelines. The north cell of the south cooling pond also is managed to facilitate lime sludge setting and as a temporary repository for the lime sludge.
2. The first stage treated water held in the north cell of the south cooling pond is then pumped to the second stage of the wastewater treatment circuit where the wastewater is mixed with a slaked lime slurry to raise the pH to >11.5 standard units.
3. From the mixing tank, the treated water flows into the second stage clarifier for separation of a gelatinous lime sludge, comprised predominately of calcium phosphate ($Ca_3(PO_4)_2$), from the treated water.
4. The treated water is then pumped through a series of six ammonia removal ponds that are plumbed and operated in series to achieve 99 percent ammonia reduction through the spray aeration process.

5. The final treatment step is to lower the pH of the treated water to approximately 6.0-6.5 standard units by adding sulfuric acid at an automated acidulation station. From this station, the treated water flows to Outfall 003.

Tables 5 and 6 present data illustrating the quality of the lime treated and aerated process wastewater. These data can be compared to the data in Table 2 to ascertain the level of treatment.

The lime treatment circuit, with the exception of the modifications listed above, has not been automated or upgraded from the 1970s era equipment installed initially, except for replacement of failed parts and equipment.

TABLE 2
MASTER POND WATER QUALITY DATA SPREADSHEET

General Sample Information	Units									
Date	N/A	09/03/03	09/03/03	09/03/03	01/30/04	02/27/04	03/03/04	03/03/04	03/15/04	03/19/04
Sample No.	N/A	Return Canal	NSGS	NSGS	Return Canal	Return Canal	Return Canal	New South Gyp Stack	Return Canal	Return Canal
Sample Type	N/A	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Samplers	N/A	USBio	USBio	USBio	Shaw	Shaw	USBio	USBio	USBio	Shaw
Laboratory	N/A	USBio	USBio	USBio	Thornton	Thornton	USBio	USBio	USBio	USBio
Field Physio-Chemical Indicators										
Dissolved Oxygen	mg/L							6.64		
pH	std. units						3.55	3.66		
Specific Conductance	µS/cm				9,400	9,600	10,320	12,410		
Temperature	^{o}C							23.3		
Turbidity	NTU							9.3		
Nutrients										
Ammonia Nitrogen	mg/L				530	521	580	640	580	570
Nitrate Nitrogen	mg/L				0.67	1.60	<1.0	<1.0		
Nitrate + Nitrite	mg/L				0.7	1.69	<1.0	<1.0	0.40	0.42
Total Kjeldahl Nitrogen	mg/L						760	650		
Total Nitrogen	mg/L						760	650		
Oil and Grease	mg/L						19	39		
Ortho-Phosphate	mg/L							1,600		
Total Phosphorus	mg/L						1,200	1,300		
Minerals - Suspended and Dissolved										
Bromide	mg/L							<0.5		
Calcium	mg/L						670	740		
Chloride	mg/L				114	122	120	140		
Fluoride	mg/L				56	54	59	54	54	66
Silica	mg/L									
Sulfate	mg/L				4,720	4,930	6,100	6,300		
Water Quality Indicators										
Alkalinity	mg/L						<2	<2		
Biological Oxygen Demand	mg/L						15	14		
Calcium Hardness	mg/L									
Chemical Oxygen Demand	mg/L						200	210		
Chlorophyll A	µg/L	170	210	87			170	200		
Color	PCU						100	100		
Magnesium Hardness	mg/L									
Total Hardness	mg/L									
Total Dissolved Solids	mg/L				10,500	10,900	9,300	11,000		
Total Suspended Solids	mg/L				17	41	19			
Radiological										
Gross Alpha Radiation	pCi/L				60+/-26	77+/-36	36+/-14			
Gross Beta Radiation	pCi/L				238+/-43	259+/-46	225+/-14			
Radium 226	pCi/L				1.5+/-0.2	1.4+/-0.2	0.7+/-0.2			
Radium 228	pCi/L						<0.8+/-0.5			

TABLE 2
MASTER POND WATER QUALITY DATA SPREADSHEET

General Sample Information	Units									
Date	N/A	09/03/03	09/03/03	09/03/03	01/30/04	02/27/04	03/03/04	03/03/04	03/15/04	03/19/04
Sample No.	N/A	Return Canal	NSGS	NSGS	Return Canal	Return Canal	Return Canal	New South Gyp Stack	Return Canal	Return Canal
Sample Type	N/A	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Samplers	N/A	USBio	USBio	USBio	Shaw	Shaw	USBio	USBio	USBio	Shaw
Laboratory	N/A	USBio	USBio	USBio	Thornton	Thornton	USBio	USBio	USBio	USBio
Metals - Suspended and Dissolved										
Aluminum	µg/L				4,100	4,500	6,900	7,300		
Antimony	µg/L				<80	<200		18		
Arsenic	µg/L				190	320	310	360		
Barium	µg/L				110	<100	17	1,100		
Beryllium	µg/L				5	<8		8.3		
Boron	µg/L							1,100		
Cadmium	µg/L				26	24	32	39		
Chromium	µg/L				20	<20	47	52		
Cobalt	µg/L							60		
Copper	µg/L				<10	<20	<10	<10		
Iron	µg/L				5,600	6,000	4,100	1,400		
Lead	µg/L				<20	<40	<5	<5		
Magnesium	mg/L						240	26		
Manganese	µg/L				1,400	1,800	1,800	2,000		
Mercury	µg/L				<0.2	<0.2		<0.2		
Molybdenum	µg/L							<50		
Nickel	µg/L				180	220	230	270		
Potassium	mg/L				162	182	200			
Selenium	µg/L				<5	<5	<10	<10		
Silica	mg/L				2.0	2.2	140	160		
Silver	µg/L				<10	<20	<10	<10		
Sodium	mg/L				1,060	1,210	1,300	1,300		
Strontium	µg/L							9,500		
Thallium	µg/L				<40	<80		<10		
Tin	µg/L							<50		
Titanium	µg/L							<50		
Vanadium	µg/L							<10		
Zinc	µg/L				300	280	380	440		
Dissolved Barium	mg/L									
Dissolved Copper	mg/L									
Dissolved Iron	mg/L									
Dissolved Lead	mg/L									
Dissolved Manganese	mg/L									
Dissolved Nickel	mg/L									
Dissolved Vanadium	mg/L									
Dissolved Zinc	mg/L									

TABLE 2
MASTER POND WATER QUALITY DATA SPREADSHEET

General Sample Information	Units									
Date	N/A	09/03/03	09/03/03	09/03/03	01/30/04	02/27/04	03/03/04	03/03/04	03/15/04	03/19/04
Sample No.	N/A	Return Canal	NSGS	NSGS	Return Canal	Return Canal	Return Canal	New South Gyp Stack	Return Canal	Return Canal
Sample Type	N/A	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Samplers	N/A	USBio	USBio	USBio	Shaw	Shaw	USBio	USBio	USBio	Shaw
Laboratory	N/A	USBio	USBio	USBio	Thornton	Thornton	USBio	USBio	USBio	USBio
Organic Compounds										
Benzene	µg/L				<50	<50		<10		
Benzyl Alcohol	µg/L									
Bromodichloromethane	µg/L							<0.6		
Bromoform	µg/L							<1.0		
Bromomethane	µg/L							<2.0		
Carbon Tetrachloride	mg/L				<0.050	<0.050		<0.001		
Chlordane	mg/L				<0.003	<0.003		<0.0003		
Chlorobenzene	mg/L				<10.0	<10.0		<0.001		
Chloroethane	µg/L							<1.0		
Chloroform	mg/L				<0.600	<0.600		<0.001		
Chloromethane	µg/L							<1.0		
2-Chlorovinyl Ether	µg/L							<10.0		
o-Cresol	mg/L				<20	<20		<0.010		
m-Cresol	mg/L				<20	<20				
p-Cresol	mg/L				<20	<20				
Cresol	mg/L				<20	<20				
Cyanide	mg/L				<0.030	<0.030		<0.005		
2-4-D	mg/L				<1	<1				
Dibromochloromethane	µg/L							<0.40		
1,2-Dichlorobenzene	µg/L				<0.050	<0.050		<1.0		
1,3-Dichlorobenzene	µg/L							<1.0		
1,4-Dichlorobenzene	mg/L				<0.750	<0.750		<0.001		
1,2-Dichloroethane	mg/L							<0.001		
1,1-Dichloroethylene	mg/L				<0.070	<0.070		<0.001		
1,2-Dichloroethylene	µg/L									
trans-1,2-Dichloroethene	µg/L							<1.0		
2,4-Dinitrotoluene	mg/L				<0.1	<0.1				
1,2-Dichloropropane	µg/L							<1.0		
cis-1,3-Dichloropropene	µg/L							<0.2		
trans-1,3-Dichloropropene	µg/L							<0.2		
Endrin	mg/L				<0.002	<0.002		<0.0006		
Ethylbenzene	µg/L							<0.001		
Heptachlor (and its epoxide)	mg/L				<0.0008	<0.0008		<0.0003		
Hexachlorobenzene	mg/L				<0.100	<0.100				
Hexchlorobutadiene	mg/L				<0.050	<0.050		<0.001		
Hexachloroethane	mg/L				<0.300	<0.300				
Lindane	mg/L				<0.040	<0.040				
Methoxychlor	mg/L				<1.0	<1.0		<0.003		
Methyl Ethyl Ketone	mg/L				<0.020	<0.020		<0.010		
Methylene blue active substances	mg/L							0.13		

TABLE 2
MASTER POND WATER QUALITY DATA SPREADSHEET

General Sample Information	Units									
Date	N/A	09/03/03	09/03/03	09/03/03	01/30/04	02/27/04	03/03/04	03/03/04	03/15/04	03/19/04
Sample No.	N/A	Return Canal	NSGS	NSGS	Return Canal	Return Canal	Return Canal	New South Gyp Stack	Return Canal	Return Canal
Sample Type	N/A	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Samplers	N/A	USBio	USBio	USBio	Shaw	Shaw	USBio	USBio	USBio	Shaw
Laboratory	N/A	USBio	USBio	USBio	Thornton	Thornton	USBio	USBio	USBio	USBio
Methylene chloride	µg/L							<0.005		
Nitrobenzene	mg/L				<0.200	<0.200				
Pentachlorophenol	mg/L				<10.0	<10.0				
Phenol	mg/L							0.023		
Pyridine	µg/L				<500	<500				
Tetrachloroethylene	mg/L				<0.070	<0.070		<0.001		
Toluene	µg/L							<1.0		
Total Organic Carbon	mg/L				48	51	64	71		
Toxaphene	mg/L				<0.050	<0.050		<0.017		
1,1,2-Trichloroethane	µg/L							<1.0		
Trichloroethylene	mg/L				<0.050	<0.050		<0.001		
Trichlorofluoromethane	µg/L							<1.0		
2,4,5-Trichlorophenol	mg/L				<40.0	<40.0				
2,4,6-Trichlorophenol	mg/L				<0.200	<0.200				
2,4,5-TP (Silvex)	mg/L				<0.100	<0.100				
Vinyl Chloride	mg/L				<0.020	<0.020		<0.001		
m,p-Xylene	µg/L							<2.0		
o-Xylene	µg/L							<2.0		

TABLE 2
MASTER POND WATER QUALITY DATA SPREADSHEET

General Sample Information	Units				
Date	N/A	03/29/04	04/15/04	04/21/04	05/19/04
Sample No.	N/A	Return Canal	Return Canal	Return Canal	Return Canal
Sample Type	N/A	Grab	Grab	Grab	Grab
Samplers	N/A	USBio	Shaw	Shaw	USBio
Laboratory	N/A	USBio	USBio	USBio	USBio
Field Physio-Chemical Indicators					
Dissolved Oxygen	mg/L				
pH	std. units				
Specific Conductance	µS/cm				
Temperature	^{o}C				
Turbidity	NTU				
Nutrients					
Ammonia Nitrogen	mg/L	690	680	690	780
Nitrate Nitrogen	mg/L				
Nitrate + Nitrite	mg/L	<0.50	<0.50	0.35	
Total Kjeldahl Nitrogen	mg/L	670		710	
Total Nitrogen	mg/L	670		710	
Oil and Grease	mg/L				
Ortho-Phosphate	mg/L				
Total Phosphorus	mg/L				1,500
Minerals - Suspended and Dissolved					
Bromide	mg/L				
Calcium	mg/L				
Chloride	mg/L				110
Fluoride	mg/L		63	62	
Silica	mg/L				
Sulfate	mg/L				8,100
Water Quality Indicators					
Alkalinity	mg/L				
Biological Oxygen Demand	mg/L				
Calcium Hardness	mg/L				
Chemical Oxygen Demand	mg/L				
Chlorophyll A	µg/L				
Color	PCU				
Magnesium Hardness	mg/L				
Total Hardness	mg/L				
Total Dissolved Solids	mg/L				14,000
Total Suspended Solids	mg/L				73
Radiological					
Gross Alpha Radiation	pCi/L				
Gross Beta Radiation	pCi/L				
Radium 226	pCi/L				
Radium 228	pCi/L				

TABLE 2
MASTER POND WATER QUALITY DATA SPREADSHEET

General Sample Information	Units				
Date	N/A	03/29/04	04/15/04	04/21/04	05/19/04
Sample No.	N/A	Return Canal	Return Canal	Return Canal	Return Canal
Sample Type	N/A	Grab	Grab	Grab	Grab
Samplers	N/A	USBio	Shaw	Shaw	USBio
Laboratory	N/A	USBio	USBio	USBio	USBio
Metals - Suspended and Dissolved					
Aluminum	µg/L				
Antimony	µg/L				
Arsenic	µg/L				
Barium	µg/L				
Beryllium	µg/L				
Boron	µg/L				
Cadmium	µg/L				
Chromium	µg/L				
Cobalt	µg/L				
Copper	µg/L				
Iron	µg/L				
Lead	µg/L				
Magnesium	mg/L				
Manganese	µg/L				
Mercury	µg/L				
Molybdenum	µg/L				
Nickel	µg/L				
Potassium	mg/L				
Selenium	µg/L				
Silica	mg/L				
Silver	µg/L				
Sodium	mg/L				1,900
Strontium	µg/L				
Thallium	µg/L				
Tin	µg/L				
Titanium	µg/L				
Vanadium	µg/L				
Zinc	µg/L				
Dissolved Barium	mg/L				
Dissolved Copper	mg/L				
Dissolved Iron	mg/L				
Dissolved Lead	mg/L				
Dissolved Manganese	mg/L				
Dissolved Nickel	mg/L				
Dissolved Vanadium	mg/L				
Dissolved Zinc	mg/L				

TABLE 2
MASTER POND WATER QUALITY DATA SPREADSHEET

General Sample Information	Units				
Date	N/A	03/29/04	04/15/04	04/21/04	05/19/04
Sample No.	N/A	Return Canal	Return Canal	Return Canal	Return Canal
Sample Type	N/A	Grab	Grab	Grab	Grab
Samplers	N/A	USBio	Shaw	Shaw	USBio
Laboratory	N/A	USBio	USBio	USBio	USBio
Organic Compounds					
Benzene	µg/L				
Benzyl Alcohol	µg/L				
Bromodichloromethane	µg/L				
Bromoform	µg/L				
Bromomethane	µg/L				
Carbon Tetrachloride	mg/L				
Chlordane	mg/L				
Chlorobenzene	mg/L				
Chloroethane	µg/L				
Chloroform	mg/L				
Chloromethane	µg/L				
2-Chlorovinyl Ether	µg/L				
o-Cresol	mg/L				
m-Cresol	mg/L				
p-Cresol	mg/L				
Cresol	mg/L				
Cyanide	mg/L				
2-4-D	mg/L				
Dibromochloromethane	µg/L				
1,2-Dichlorobenzene	µg/L				
1,3-Dichlorobenzene	µg/L				
1,4-Dichlorobenzene	mg/L				
1,2-Dichloroethane	mg/L				
1,1-Dichloroethylene	mg/L				
1,2-Dichloroethylene	µg/L				
trans-1,2-Dichloroethene	µg/L				
2,4-Dinitrotoluene	mg/L				
1,2-Dichloropropane	µg/L				
cis-1,3-Dichloropropene	µg/L				
trans-1,3-Dichloropropene	µg/L				
Endrin	mg/L				
Ethylbenzene	µg/L				
Heptachlor (and its epoxide)	mg/L				
Hexachlorobenzene	mg/L				
Hexchlorobutadiene	mg/L				
Hexachloroethane	mg/L				
Lindane	mg/L				
Methoxychlor	mg/L				
Methyl Ethyl Ketone	mg/L				
Methylene blue active substances	mg/L				

TABLE 2
MASTER POND WATER QUALITY DATA SPREADSHEET

General Sample Information	Units				
Date	N/A	03/29/04	04/15/04	04/21/04	05/19/04
Sample No.	N/A	Return Canal	Return Canal	Return Canal	Return Canal
Sample Type	N/A	Grab	Grab	Grab	Grab
Samplers	N/A	USBio	Shaw	Shaw	USBio
Laboratory	N/A	USBio	USBio	USBio	USBio
Methylene chloride	µg/L				
Nitrobenzene	mg/L				
Pentachlorophenol	mg/L				
Phenol	mg/L				
Pyridine	µg/L				
Tetrachloroethylene	mg/L				
Toluene	µg/L				
Total Organic Carbon	mg/L				
Toxaphene	mg/L				
1,1,2-Trichloroethane	µg/L				
Trichloroethylene	mg/L				
Trichlorofluoromethane	µg/L				
2,4,5-Trichlorophenol	mg/L				
2,4,6-Trichlorophenol	mg/L				
2,4,5-TP (Silvex)	mg/L				
Vinyl Chloride	mg/L				
m,p-Xylene	µg/L				
o-Xylene	µg/L				

TABLE 3
FINAL RO PRODUCT QUALITY

BENCHMARK

EnviroAnalytical, Inc.
1711 12th Street East
Palmetto, FL 34232
(941) 723-9986 Phone (941) 723-6061 Fax
FDHRS Certification #E84167

THESE RESULTS MEET NELAC STANDARDS

Submission	Sample #	Sample Description	Sample Date	Sample Time	Sample Method	Compound	Result	Units	MDL	Method	Analysis Date	Analysis Time	Analyst
4050094	1	**Final Product**	5/4/04	1515	Grab	PH	6.42	UNITS	0.1	150.1	5/4/04	17:10	TB
4050094	1	**Final Product**	5/4/04	1515	Grab	OIL AND GREASE	1.83 I	MG/L	1.0	1664	5/6/04		KJG
4050094	1	**Final Product**	5/4/04	1515	Grab	TEMPERATURE	25.1	DEG C.	0.1	170.1	5/4/04	17:10	TB
4050094	1	**Final Product**	5/4/04	1515	Grab	TURBIDITY	0.11	NTU	0.02	180.1	5/5/04	10:00	HAL
4050094	1	**Final Product**	5/4/04	1515	Grab	ANTIMONY	5U	UG/L	5	200.7	5/5/04		TB
4050094	1	**Final Product**	5/4/04	1515	Grab	ARSENIC	8U	UG/L	8	200.7	5/6/04		TB
4050094	1	**Final Product**	5/4/04	1515	Grab	BERYLLIUM	12U	UG/L	12	200.7	5/5/04		TB
4050094	1	**Final Product**	5/4/04	1515	Grab	CADMIUM	3U	UG/L	3	200.7	5/5/04		TB
4050094	1	**Final Product**	5/4/04	1515	Grab	CHROMIUM	2U	UG/L	2	200.7	5/5/04		TB
4050094	1	**Final Product**	5/4/04	1515	Grab	COPPER	4U	UG/L	4	200.7	5/5/04		TB
4050094	1	**Final Product**	5/4/04	1515	Grab	IRON	29U	UG/L	29	200.7	5/5/04		TB
4050094	1	**Final Product**	5/4/04	1515	Grab	LEAD	3U	UG/L	3	200.7	5/5/04		TB
4050094	1	**Final Product**	5/4/04	1515	Grab	NICKEL	3U	UG/L	3	200.7	5/5/04		TB
4050094	1	**Final Product**	5/4/04	1515	Grab	SELENIUM	6U	UG/L	6	200.7	5/5/04		TB
4050094	1	**Final Product**	5/4/04	1515	Grab	THALLIUM	3U	UG/L	3	200.7	5/6/04		TB
4050094	1	**Final Product**	5/4/04	1515	Grab	ZINC	31.8	UG/L	4	200.7	5/5/04		TB
4050094	1	**Final Product**	5/4/04	1515	Grab	TOTAL ALKALINITY	1.5	MG/L	1	310.1	5/6/04		TB
4050094	1	**Final Product**	5/4/04	1515	Grab	CHLORINE RESIDUAL	0.01U	MG/L	0.01	330.5	5/4/04	17:15	TB
4050094	1	**Final Product**	5/4/04	1515	Grab	FLUORIDE	0.933	MG/L	0.1	340.2	5/7/04		KJG
4050094	1	**Final Product**	5/4/04	1515	Grab	AMMONIA NITROGEN	0.34	MG/L	0.01	350.2	5/5/04		TDT
4050094	1	**Final Product**	5/4/04	1515	Grab	UNIONIZED AMMONIA	0.001U	MG/L	0.001	350.2	5/11/04		GAS
4050094	1	**Final Product**	5/4/04	1515	Grab	TOTAL KJELDAHL NITROGEN	0.57	MG/L	0.06	351.2	5/10/04		TDT
4050094	1	**Final Product**	5/4/04	1515	Grab	TOTAL NITROGEN	0.608	MG/L	0.06	353+351	5/10/04		TDT/KJG
4050094	1	**Final Product**	5/4/04	1515	Grab	NITRATE+NITRITE	0.038 I	MG/L	0.01	353.2	5/5/04		KJG
4050094	1	**Final Product**	5/4/04	1515	Grab	TOTAL PHOSPHORUS	0.11	MG/L	0.01	365.3	5/6/04		TDT
4050094	1	**Final Product**	5/4/04	1515	Grab	DICHLOROBROMOMETHANE	0.12U	UG/L	0.12	524.2	5/10/04		E83079
4050094	1	**Final Product**	5/4/04	1515	Grab	BROMOFORM	0.10U	UG/L	0.10	524.2	5/10/04		E83079
4050094	1	**Final Product**	5/4/04	1515	Grab	BROMODICHLOROMETHANE	0.070U	UG/L	0.070	524.2	5/10/04		E83079
4050094	1	**Final Product**	5/4/04	1515	Grab	TOTAL TRIHALOMETHANE	0.62	UG/L	0.50	524.2	5/10/04		E83079
4050094	1	**Final Product**	5/4/04	1515	Grab	CHLOROFORM	0.62	UG/L	0.070	524.2	5/10/04		E83079
4050094	1	**Final Product**	5/4/04	1515	Grab	BENZYL BUTYL PHTHALATE	0.78U	UG/L	0.78	625	5/7/04		E83079
4050094	1	**Final Product**	5/4/04	1515	Grab	DI-N-OCTYLPHTHALATE	0.69U	UG/L	0.69	625	5/7/04		E83079
4050094	1	**Final Product**	5/4/04	1515	Grab	DIMETHYL PHTHALATE	1.1U	UG/L	1.1	625	5/7/04		E83079
4050094	1	**Final Product**	5/4/04	1515	Grab	DIETHYL PHTHALATE	1.4U	UG/L	1.4	625	5/7/04		E83079
4050094	1	**Final Product**	5/4/04	1515	Grab	BIS(2-ETHYLHEXYL)PHTHALATE	0.78U	UG/L	0.78	625	5/7/04		E83079
4050094	1	**Final Product**	5/4/04	1515	Grab	DI-N-BUTYLPHTHALATE	0.70U	UG/L	0.70	625	5/7/04		E83079
4050094	1	**Final Product**	5/4/04	1515	Grab	GROSS ALPHA	0.5U	pCi/L	0.5	900.0	5/10/04		E83079
4050094	1	**Final Product**	5/4/04	1515	Grab	RADIUM-226	0.7U	pCi/L	0.7	903.1	5/12/04		E83079
4050094	1	**Final Product**	5/4/04	1515	Grab	RADIUM-228	1.0U	pCi/L	1.0	Ra-05	5/11/04		E83079
4050094	1	**Final Product**	5/4/04	1515	Grab	DISSOLVED OXYGEN	7.81	MG/L	0.05	SM4500 OC	5/4/04	17:40	DD
4050094	1	**Final Product**	5/4/04	1515	Grab	SURFACTANTS	23U	UG/L	23	SM5540C	5/5/04	15:10	TDT
4050094	2	**Reject**	5/4/04	1519	Grab	PH	4.22	UNITS	0.1	150.1	5/4/04	17:10	TB
4050094	2	**Reject**	5/4/04	1519	Grab	SILVER	0.5U	UG/L	0.5	200.7	5/7/04		TB
4050094	2	**Reject**	5/4/04	1519	Grab	SELENIUM	7.9 I	UG/L	6	200.7	5/5/04		TB
4050094	2	**Reject**	5/4/04	1519	Grab	LEAD	3U	UG/L	3	200.7	5/5/04		TB
4050094	2	**Reject**	5/4/04	1519	Grab	ARSENIC	591	UG/L	8	200.7	5/6/04		TB
4050094	2	**Reject**	5/4/04	1519	Grab	CADMIUM	49.8	UG/L	3	200.7	5/5/04		TB
4050094	2	**Reject**	5/4/04	1519	Grab	BARIUM	2U	UG/L	2	208.2	5/7/04		RK
4050094	2	**Reject**	5/4/04	1519	Grab	MERCURY	0.2U	UG/L	0.2	245.1	5/6/04		TDT

Qualifiers:
I = Reported value is between laboratory MDL and the PQL (PQL = 4xMDL)
U = Analyte not detected at the value indicated.

Notes:
C = Not certified for method 200.7

TABLE 4
MASTER RO REJECT SPREADSHEET

General Sample Information	**Units**									
Date	N/A	01/30/04	02/06/04	02/13/04	02/20/04	02/27/04	03/05/04	03/12/04	03/19/04	03/31/04
Sample No.	N/A	CF-1	CF-11	CF-12	CF-13	CF-14	CF-15	CF-16	CF-17	CF-18
Sample Type	N/A	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Samplers	N/A	Shaw	Shaw	Shaw	Shaw	Shaw	Shaw	Shaw	Shaw	Shaw
Laboratory	N/A	Thornton	Thornton	Thornton	Thornton	Thornton	Thornton	Thornton	Thornton	Thornton
Field Physio-Chemical Indicators										
Dissolved Oxygen	mg/L									
pH	std. units									
Specific Conductance	µS/cm	17,000	16,000	17,900	21,000	18,500	18,500	19,900	10,200	21,100
Temperature	^{o}C									
Turbidity	NTU									
Nutrients										
Ammonia Nitrogen	mg/L	825	853	957	1,030	992	818	1,010	568	778
Nitrate Nitrogen	mg/L	0.83	1.0	1.1	1.2	2.6	1.2	1.5	0.88	0.79
Nitrate + Nitrite	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Kjeldahl Nitrogen	mg/L									
Total Nitrogen	mg/L									
Ortho-Phosphate	mg/L									
Total Phosphorus	mg/L									
Minerals - Suspended and Dissolved										
Bromide	mg/L									
Calcium	mg/L									
Chloride	mg/L	218	208	201	262	239	224	285	152	274
Fluoride	mg/L	94	91	98	129	92	122	109	96	104
Silica	mg/L	1.1	1.3	1.6	1.5	1.4	1.6	1.9	0.9	1.5
Sulfate	mg/L	7,730	7,550	8,870	9,120	8,130	7,810	9,770	5,410	9,600
Sulfite	mg/L									
Water Quality Indicators										
Alkalinity	mg/L									
Biological Oxygen Demand	mg/L									
Chemical Oxygen Demand	mg/L									
Color	PCU									
Total Dissolved Solids	mg/L	17,400	16,700	18,600	20,800	18,000	17,600	21,400	11,450	21,000
Total Suspended Solids	mg/L	8.91	11	6.8	7.2	6.4	14	12	28	21
Radiological										
Gross Alpha Radiation	pCi/L	207+/-84	192+/-67	141+/-61	164+/-75	174+/-67	184+/-76	158+/-67	173+/-87	159+/-65
Gross Beta Radiation	pCi/L	432+/-87	387+/-85	489+/-90	432+/-89	435+/-87	428+/-130	405+/-85	439+/-131	444+/-88
Radium 226	pCi/L	1.8+/-0.2	1.9+/-0.2	1.9+/-0.2	1.8+/-0.2	1.8+/-0.2	1.7+/-0.2	1.3+/-0.2	1.4+/-0.2	1.5+/-0.2
Radium 228	pCi/L									
Metals - Suspended and Dissolved										
Aluminum	µg/L	6,100	7,200	7,300	7,500	7,200	8,700	8,400	5,300	7,300
Antimony	µg/L	<80	<80	<80	<200	<200	<200	<200	<200	<200
Arsenic	µg/L	470	510	750	680	530	430	630	370	620
Barium	µg/L	110	70	70	<100	<100	300	200	<100	<100
Beryllium	µg/L	8	8	8	<8	<8	9	10	<8	8
Boron	µg/L									
Cadmium	µg/L	45	46	50	62	42	41	57	34	51
Chromium	µg/L	30	30	40	40	30	20	20	<20	<20
Cobalt	µg/L									
Copper	µg/L	<10	<10	<10	<20	<20	<20	<20	<20	<20
Iron	µg/L	2,900	2,300	3,100	2,300	1,900	1,900	1,600	790	1,100
Lead	µg/L	<20	<20	<20	<40	<40	<40	<40	<40	<40
Magnesium	mg/L									
Manganese	µg/L	2,100	2,100	3,300	3,200	3,000	3,000	2,100	1,400	1,900
Mercury	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum	µg/L									
Nickel	µg/L	300	290	330	370	340	340	360	230	350
Potassium	mg/L	268	251	308	379	312	288	362	182	350
Selenium	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Silver	µg/L	<10	<10	<10	<20	<20	<20	<20	<20	<20
Sodium	mg/L	1,890	1,750	2,200	2,210	1,890	2,030	2,370	1,350	2,250
Strontium	µg/L					.				
Thallium	µg/L	<40	<40	<40	<80	<80	<80	<80	<80	<80
Tin	µg/L									
Titanium	µg/L									
Vanadium	µg/L									
Zinc	µg/L	500	510	580	570	530	560	650	400	580

TABLE 4
MASTER RO REJECT SPREADSHEET

General Sample Information	**Units**									
Date	N/A	01/30/04	02/06/04	02/13/04	02/20/04	02/27/04	03/05/04	03/12/04	03/19/04	03/31/04
Sample No.	N/A	CF-1	CF-11	CF-12	CF-13	CF-14	CF-15	CF-16	CF-17	CF-18
Sample Type	N/A	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Samplers	N/A	Shaw	Shaw	Shaw	Shaw	Shaw	Shaw	Shaw	Shaw	Shaw
Laboratory	N/A	Thornton	Thornton	Thornton	Thornton	Thornton	Thornton	Thornton	Thornton	Thornton
Organic Compounds										
Benzene	µg/L	<50	<50	<50	<50	<50	<50	<50	<50	<50
Benzyl Alcohol	µg/L									
Bromodichloromethane	µg/L									
Bromoform	µg/L									
Bromomethane	µg/L									
Carbon Tetrachloride	µg/L	<50	<50	<50	<50	<50	<50	<50	<50	<50
Chlordane	µg/L	<3	<3	<3	<3	<3	<3	<3	<3	<3
Chlorobenzene	µg/L	<10,000	<10,000	<10,000	<10,000	<10,000	<10,000	<10,000	<10,000	<10,000
Chloroethane	µg/L									
Chloroform	µg/L	<600	<600	<600	<600	<600	<600	<600	<600	<600
Chloromethane	µg/L									
2-Chlorovinyl Ether	µg/L									
o-Cresol	µg/L	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000
m-Cresol	µg/L	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000
p-Cresol	µg/L	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000
Cresol	µg/L	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000
Cyanide	µg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
2,4-D	µg/L	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Dibromochloromethane	µg/L									
1,2-Dichlorobenzene	µg/L									
1,3-Dichlorobenzene	µg/L									
1,4-Dichlorobenzene	µg/L	<750	<750	<750	<750	<750	<750	<750	<750	<750
1,2-Dichloroethane	µg/L	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,1-Dichloroethylene	µg/L	<70	<70	<70	<70	<70	<70	<70	<70	<70
1,2-Dichloroethylene	µg/L									
trans-1,2-Dichloroethene	µg/L									
2,4-Dinitrotoluene	µg/L	<100	<100	<100	<100	<100	<100	<100	<100	<100
1,2-Dichloropropane	µg/L									
cis-1,3-Dichloropropene	µg/L									
trans-1,3-Dichloropropene	µg/L									
Endrin	µg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	µg/L									
Heptachlor (and its epoxide)	µg/L	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Hexachlorobenzene	µg/L	<100	<100	<100	<100	<100	<100	<100	<100	<100
Hexchlorobutadiene	µg/L	<50	<50	<50	<50	<50	<50	<50	<50	<50
Hexachloroethane	µg/L	<300	<300	<300	<300	<300	<300	<300	<300	<300
Lindane	µg/L	<40	<40	<40	<40	<40	<40	<40	<40	<40
Methoxychlor	µg/L	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Methyl Ethyl Ketone	µg/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
Methylene blue active substances	mg/L									
Methylene chloride	µg/L									
Nitrobenzene	µg/L	<200	<200	<200	<200	<200	<200	<200	<200	<200
Pentachlorophenol	µg/L	<10,000	<10,000	<10,000	<10,000	<10,000	<10,000	<10,000	<10,000	<10,000
Phenol	µg/L									
Pyridine	µg/L	<500	<500	<500	<500	<500	<500	<500	<500	<500
Tetrachloroethylene	µg/L	<70	<70	<70	<70	<70	<70	<70	<70	<70
Toluene	µg/L									
Total Organic Carbon	mg/L	101	92	118	110	110	103	128	69	124
Toxaphene	µg/L	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,1,2-Trichloroethane	µg/L									
Trichloroethylene	µg/L	<50	<50	<50	<50	<50	<50	<50	<50	<50
Trichlorofluoromethane	µg/L									
2,4,5-Trichlorophenol	µg/L	<40	<40	<40	<40	<40	<40	<40	<40	<40
2,4,6-Trichlorophenol	µg/L	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,4,5-TP (Silvex)	µg/L	<100	<100	<100	<100	<100	<100	<100	<100	<100
Vinyl Chloride	µg/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
m,p-Xylene	µg/L									
o-Xylene	µg/L									

TABLE 5
MASTER DOUBLE LIME WATER QUALITY SPREADSHEET

General Sample Information	Units								
Date	N/A	10/08/03	10/22/03	11/12/03	11/25/03	12/10/03	12/23/03	12/30/03	1/7/04
Sample No.	N/A	Hills9	Hills10	Hills11	Hills12	Hills13	Hills14	Hills15	Manatee1
Sample Type	N/A	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Samplers	N/A	Shaw	Shaw	Shaw	Shaw	Shaw	Shaw	Shaw	US Bio
Laboratory	N/A	US Bio	US Bio	US Bio	US Bio	US Bio	US Bio	US Bio	US Bio
Field Physio-Chemical Indicators									
Dissolved Oxygen	mg/L								6.97
pH	std. units						6.56		6.51
Specific Conductance	µS/cm	5,800	6,700	6,800	7,100	7,600	7,200		5,270
Temperature	^{o}C								16.2
Turbidity	NTU								1.14
Nutrients									
Ammonia Nitrogen	mg/L	14	19	24	35	24	27		21
Nitrate Nitrogen	mg/L								1.9
Nitrate + Nitrite	mg/L								<4.4
Oil and Grease	mg/L								
Total Kjeldahl Nitrogen	mg/L		22		42		36		22
Total Nitrogen	mg/L								24
Ortho-Phosphate	mg/L								0.59
Total Phosphorus	mg/L		0.74		1.1		1.1		0.63
Minerals - Suspended and Dissolved									
Bromide	mg/L								<0.5
Calcium	mg/L	720	730	980	760	840	810		810
Chloride	mg/L								
Fluoride	mg/L		<0.2		<0.2		<0.2		>0.2
Silica	mg/L								
Sulfate	mg/L	1,900	4,000	4,700	5,000	5,300	3,900		4,900
Sulfite	mg/L								
Sulfide	mg/L								
Water Quality Indicators									
Acidity	mg/L								
Fecal Coliform	#/100ml								<1
Total Residual Chlorine	mg/L								
Alkalinity	mg/L								20
Biological Oxygen Demand	mg/L								5.1
Carbonaceous BOD	mg/L		2.6		4.9		7.2		
Chemical Oxygen Demand	mg/L								140
Color	PCU								5.0
Total Dissolved Solids	mg/L	4,800	5,800	5,600	6,100	6,100	5,800		6,200
Total Hardness	mg/L								
Total Suspended Solids	mg/L		8.7		6.3		11		12
Radiological									
Gross Alpha Radiation	pCi/L								13.6+/-6.2
Gross Beta Radiation	pCi/L								197+/-8.5

TABLE 5
MASTER DOUBLE LIME WATER QUALITY SPREADSHEET

General Sample Information	Units								
Date	N/A	10/08/03	10/22/03	11/12/03	11/25/03	12/10/03	12/23/03	12/30/03	1/7/04
Sample No.	N/A	Hills9	Hills10	Hills11	Hills12	Hills13	Hills14	Hills15	Manatee1
Sample Type	N/A	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Samplers	N/A	Shaw	Shaw	Shaw	Shaw	Shaw	Shaw	Shaw	US Bio
Laboratory	N/A	US Bio	US Bio	US Bio	US Bio	US Bio	US Bio	US Bio	US Bio
Radium 226	pCi/L								0.8+/-0.3
Radium 228	pCi/L								<0.8+/-0.5
Uranium	pCi/L								4.0+/-1.5
Metals - Suspended and Dissolved									
Aluminum	µg/L								<50
Antimony	µg/L								<6
Arsenic	µg/L		<10		<10		<10		<10
Barium	µg/L								15
Beryllium	µg/L								<4
Boron	µg/L								71
Cadmium	µg/L		<5		<5		<5		<5
Chromium	µg/L		<5		<5		<5		<5
Cobalt	µg/L								12
Copper	µg/L		<10		<10		<10		<10
Iron	µg/L								<25
Lead	µg/L		<5		<5		<5		<5
Magnesium	mg/L								7.1
Manganese	µg/L								<10
Mercury	µg/L		<0.2		<0.2		<0.2		
Molybdenum	µg/L		<50		<50		<50		
Nickel	µg/L		7.2		110		150	210	210
Potassium	mg/L	120	120	170	130	180	170		
Selenium	µg/L		<10		<10		<10		<10
Silver	µg/L		<10		<10		<10		<10
Sodium	mg/L	760	770	1,100	820	1,100	990		1,000
Strontium	µg/L								1600
Thallium	µg/L								<10
Tin	µg/L								<50
Titanium	µg/L								<50
Vanadium	µg/L								<10
Zinc	µg/L		30		<20		20		<20

TABLE 5
MASTER DOUBLE LIME WATER QUALITY SPREADSHEET

General Sample Information	Units			
Date	N/A	2/2/04	3/8/04	4/5/04
Sample No.	N/A	Manatee2	Manatee3	Manatee4
Sample Type	N/A	Grab	Grab	Grab
Samplers	N/A	US Bio	US Bio	Shaw
Laboratory	N/A	US Bio	US Bio	US Bio
Field Physio-Chemical Indicators				
Dissolved Oxygen	mg/L	8.11		
pH	std. units	6.76	7.46	6.48
Specific Conductance	µS/cm	5,330	6,600	15,000
Temperature	^{o}C	15.1		
Turbidity	NTU	3.96		
Nutrients				
Ammonia Nitrogen	mg/L	26	8.9	13
Nitrate Nitrogen	mg/L	0.49		
Nitrate + Nitrite	mg/L	<4.4		
Oil and Grease	mg/L			
Total Kjeldahl Nitrogen	mg/L	26		
Total Nitrogen	mg/L	26		
Ortho-Phosphate	mg/L	0.60		
Total Phosphorus	mg/L	0.75	0.30	0.34
Minerals - Suspended and Dissolved				
Bromide	mg/L	<0.5		
Calcium	mg/L	1,000		
Chloride	mg/L	110	120	130
Fluoride	mg/L	<0.2		
Silica	mg/L			
Sulfate	mg/L	4,500	4,400	5,400
Sulfite	mg/L			
Sulfide	mg/L			
Water Quality Indicators				
Acidity	mg/L	16		
Fecal Coliform	#/100ml	1.0		
Total Residual Chlorine	mg/L			
Alkalinity	mg/L	19		
Biological Oxygen Demand	mg/L	5.2		
Carbonaceous BOD	mg/L			
Chemical Oxygen Demand	mg/L	62		
Color	PCU	<5.0		
Total Dissolved Solids	mg/L	6,000	6,000	7,100
Total Hardness	mg/L			
Total Suspended Solids	mg/L	9.3	140	56
Radiological				
Gross Alpha Radiation	pCi/L	14.5+/-8.2		
Gross Beta Radiation	pCi/L	160+/-13.3		

TABLE 5
MASTER DOUBLE LIME WATER QUALITY SPREADSHEET

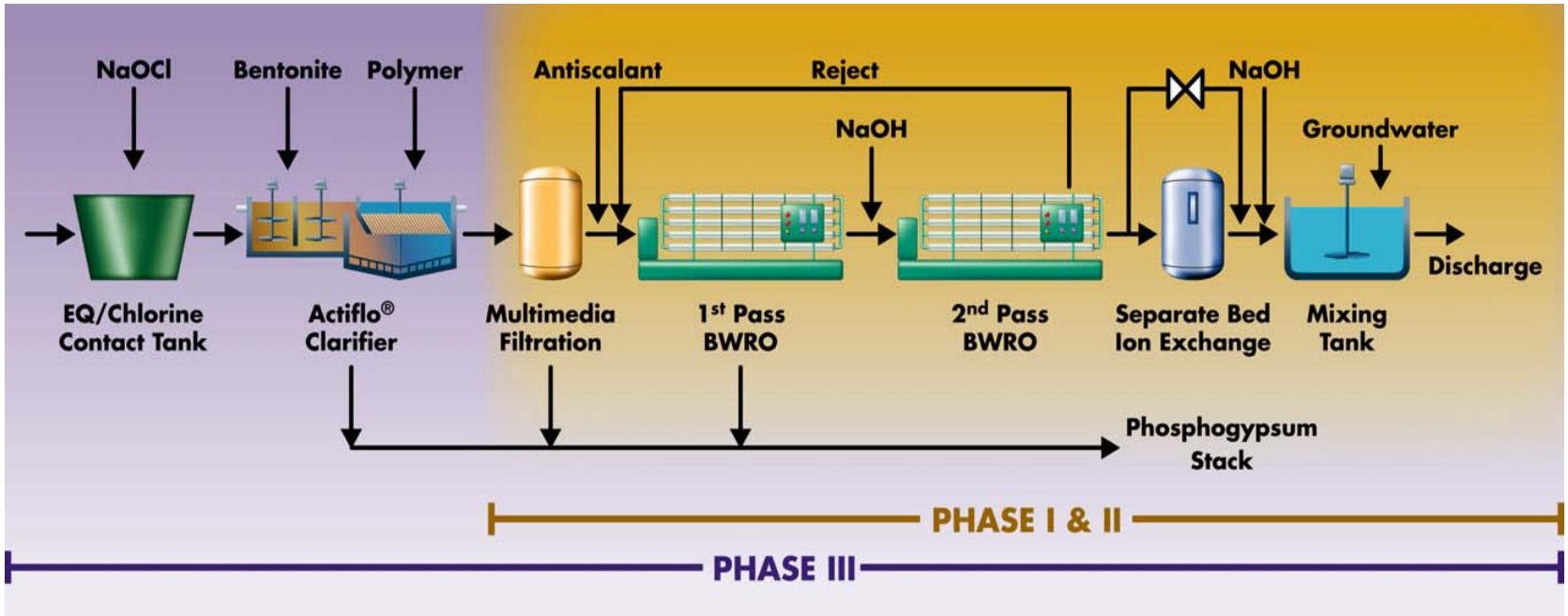
General Sample Information	Units			
Date	N/A	2/2/04	3/8/04	4/5/04
Sample No.	N/A	Manatee2	Manatee3	Manatee4
Sample Type	N/A	Grab	Grab	Grab
Samplers	N/A	US Bio	US Bio	Shaw
Laboratory	N/A	US Bio	US Bio	US Bio
Radium 226	pCi/L	0.5+/-0.1		
Radium 228	pCi/L	<0.8+/-0.5		
Uranium	pCi/L	<1.4+/-1.1		
Metals - Suspended and Dissolved				
Aluminum	µg/L	54		
Antimony	µg/L	<6		
Arsenic	µg/L	11		
Barium	µg/L	<10		
Beryllium	µg/L	<4		
Boron	µg/L	98		
Cadmium	µg/L	<5		
Chromium	µg/L	<5		
Cobalt	µg/L	10		
Copper	µg/L	<10		
Iron	µg/L	<50		
Lead	µg/L	<5		
Magnesium	mg/L	9.8		
Manganese	µg/L	<10		
Mercury	µg/L			
Molybdenum	µg/L			
Nickel	µg/L	200		
Potassium	mg/L			
Selenium	µg/L	<10		
Silver	µg/L	<10		
Sodium	mg/L	900	850	1,400
Strontium	µg/L	1500		
Thallium	µg/L	<10		
Tin	µg/L	<50		
Titanium	µg/L	<50		
Vanadium	µg/L	<10		
Zinc	µg/L	<20		

TABLE 6
QUALITY OF LIME TREATED
PROCESS WASTEWATER
SECOND QUARTER 2004

Date Sampled	5 Pond pH	5 Pond Cond	5 Pond NH3 Meter C
4/1/04	9.84	7700	13.2
4/2/04	9.59	7770	12.5
4/3/04	9.46	8400	12.9
4/4/04	9.45	8300	12.3
4/5/04	9.45	8130	10.3
4/6/04	9.12	8200	9.76
4/7/04	9.07	8200	9.72
4/8/04	9.28	8300	15
4/9/04	9.35	8300	19.4
4/10/04	9.37	8300	18.3
4/11/04	9.5	8200	15.3
4/12/04	9.12	7200	9.61
4/13/04	9.11	7600	6.48
4/14/04	9.37	7500	6.23
4/15/04	9.55	7600	4.12
4/16/04	9.67	7700	6.01
4/17/04	9.51	7860	7.52
4/18/04	9.22	7920	6.32
4/19/04	9.18	8100	5.69
4/20/04	9.05	8100	5.97
4/21/04	9.28	8200	9.62
4/22/04	9.29	8100	14.6
4/23/04	9.62	9200	13.3
4/24/04	9.46	8400	7.64
4/25/04	9.42	8500	4.1
4/26/04	9.72	8000	7.48
4/27/04	9.66	8100	7.16
4/28/04	9.67	8100	4.91
4/29/04	10.03	8100	2.89
4/30/04	10.23	9800	2.04
5/1/04	9.97	8500	2.58
5/2/04	9.48	8400	1.96
5/3/04	9.3	9400	2.71
5/4/04	9.4	9300	2
5/5/04	9.1	8100	1.32
5/6/04	9.16	8200	1.32
5/7/04	9.16	8100	1.04
5/8/04	9.12	8200	1.19
5/9/04	9.19	8200	1.92
5/10/04	9.03	8300	1.21
5/11/04	9	8300	1.5
5/12/04	9.05	8500	1.93
5/13/04	9.18	8500	1.91
5/14/04	8.83	8700	0.76
5/15/04	8.85	8800	0.1
5/16/04	8.81	8800	0.56
5/17/04	8.89	9100	0.403
5/18/04	8.99	8800	0.478
5/19/04	8.94	8800	0.545
5/20/04	9	8800	2.2
5/21/04	8.93	8900	1.34

TABLE 6
QUALITY OF LIME TREATED
PROCESS WASTEWATER
SECOND QUARTER 2004

Date Sampled	5 Pond pH	5 Pond Cond	5 Pond NH3 Meter C
5/22/04	8.94	8800	1.5
5/23/04	8.9	9100	2.49
5/24/04	8.94	9000	1.68
5/25/04	9.01	9100	2.84
5/26/04	9.01	9600	3.52
5/27/04	9.05	9300	5.1
5/28/04	9.15	9300	11.6
5/29/04	9.17	9500	17
5/30/04	8.94	9800	10.4
5/31/04	8.68	9800	5.26
6/1/04	9.28	9700	10.2
6/2/04	9.21	9600	11.1
6/3/04	9.03	10000	8.99
6/4/04	8.96	10100	7.51
6/5/04	8.97	10000	6.06
6/6/04	8.96	10100	4.02
6/7/04	8.61	10170	1.44
6/8/04	8.84	10200	1.75
6/9/04	8.65	10100	1.45
6/10/04	9	10100	2.35
6/11/04	9.16	10130	4.64
6/12/04	9.37	10130	9.43
6/13/04	9.12	10250	8.28
6/14/04	8.97	10100	4.45
6/15/04	8.66	9690	2.71
6/16/04	8.89	9700	1.91
6/17/04	8.99	10100	3.34
6/18/04	8.57	10200	1.9
6/19/04	8.83	10200	3.88
6/20/04	8.76	9800	1.9
6/21/04	8.53	9500	2.29
6/22/04	8.92	9600	6.09
6/23/04	9.02	9500	9.5
6/24/04	8.94	9500	9.1
6/25/04	8.78	9800	7.44
6/26/04	8.88	9700	8.23
6/27/04	8.55	9400	4.78
6/28/04	8.24	5500	2.45
6/29/04	8.27	10300	1.82



Reverse Osmosis Process Flow Diagram

Source: U.S. Filter

BID FORM FOR
REVISED/CLARIFIED PRICE PROPOSAL
FOR RO SERVICES BEYOND JUNE 30, 2004

A. INTRODUCTION: Both USFilter/Ionpure, Inc. and Florida Pines Water Venture, L.L.C. (i.e. bidders) timely responded to the Receiver's April 29, 2004 Invitation to Bid (RFQ). Both bidders requested changes or exceptions to the Receiver's proposed non-financial terms, and presumably based their price bids/proposals on the assumption that the requested non-financial specifications would be modified, with respect to issues such as quantity and quality of process water to be supplied, rate of daily productions, penalties for production shortfalls, etc.

On May 20, 2004, both bids were reviewed by the Receiver, Mr. Coram of the Department of Environmental Protection, and representatives of Ardaman & Associates, Inc., Shaw Environmental, Inc., and Environmental Consulting & Technology, Inc. (ECT) (i.e. Receiver's team). At the conclusion of this review, the Receiver's Team recommended, and the Receiver agreed, to issue this clarification of the eight components of the Receiver's RFQ and to offer each bidder the opportunity to revise its price proposal based upon the revised, non-negotiable, non-financial terms or specifications listed below. The Receiver's Team believes the non-financial terms or specifications listed below are reasonably responsive to each bidder's request for changes or exceptions and believes each bidder should be afforded the opportunity to revise its pricing proposal to take advantage of the certainty provided by the following revised non-negotiable terms or specifications.

B. INSTRUCTIONS TO BIDDERS: As these revised terms or specifications are non-negotiable, each bidder is specifically instructed to complete this form by: (1) inserting its proposed price per 1,000 gallons of on-specification reverse osmosis (RO) permeate final product in the blank shown in Section D below; and (2) signature of an officer of the bidder duly authorized to contractually obligate the bidder, agree to accept the following terms or specifications, without exception, in the offering of the pricing submitted in response to (1) above. No other information submitted, other than this bid form, will be considered by the Receiver when deciding to select either bidder, or to reject both bids.

C. CLARIFIED TERMS/SPECIFICATIONS: The following bid terms or specifications clarify and expressly supercede similar terms presented in the RFQ. The price per 1,000 gallons of on-specification RO final product requested below cannot be caveated by any exceptions to the following terms and specifications:

1. **Term of Extended Agreement:** The term of the Extended Agreement shall be the period of time required by the bidder to treat the quantity of water specified in specification number 3 below, or June 30, 2005, whichever is earlier. The Extended Agreement will not be considered a "… month to month …" extension of the existing Agreement, but rather a "fixed volume extension", subject to the water availability and rights to terminate provisions (see nos. 3 and 6 below).

2. **Quality of Process Water to be Supplied to RO Contractor:** In addition to the specifications provided in the April 29th RFQ, the bid price offered below must expressly acknowledge, subject to the Contractor's right to terminate (see no. 6 below), the likelihood of occurrence of the following reasonably anticipated water quality changes throughout duration of the Extended Agreement:

   a. The turbidity of the Process Water will significantly increase for periods of days, or "spike", due to the combination of ongoing site closure efforts, rainfall, and reduced capacity of ponds capable of being used to quiescent settle or clarify the water provided to the RO Contractor from the return water canal. Bidders should not expect the Receiver's closure contractors to undertake any actions to mitigate such turbidity (e.g. to relocate the RO intake point from the return water canal or to attempt to pre-treat turbid intake water) other than to provide the RO Contractor with available data, observations, or notice that such conditions are, or will likely occur as a result of planned closure activities, upstream of the return water canal;

   b. The turbidity of the untreated Process Water also will remain elevated by algae growth, which growth may "bloom" and result in significant additional increases in both turbidity and pH until and unless the bloom dies;

   c. The level of dissolved solids in the untreated process water will vary based upon rainfall, RO reject deposition in and mixing with the remaining process water, and rainfall runoff from exposed, disturbed phosphogypsum surfaces. The Receiver's most recent water balance projects that the inventory of process water will increase by about 90 million gallons between now and October 2004, and then recede to current levels by June 2005; and

   d. Receiver will make available to the RO Contractor, upon request, all Process Water quality data collected in the normal course of management and closure of the site; however, the Receiver will not cause additional water quality samples to be collected or analyzed for the benefit of the RO Contractor, but will provide access for the RO Contractor to collect and arrange for the analysis of any such samples at its own expense.

3. **Quantity of Process Water to be made Available to Contractor during the Term of the Extended Agreement:** Based upon the most recent water balance projections presented in specification no. 2b above, Receiver reasonably expects, and requests that the price proposal offered be based upon treating 146 million gallons (146,000,000) during the term of the Extended Agreement (i.e. the "Total Volume"). In the event rainfall levels during the term of the Extended Agreement are less than the average levels applied in the Receiver's water balance, or other meteorological conditions are experienced (e.g. evaporation levels in excess of projections), this Total Volume may not physically be available. Receiver will make reasonable efforts to provide Process Water to the RO Contractor (e.g. pumping water from portions of ponds/stacks that no longer gravity drain) but will not cease other water

consumption efforts (e.g. spray evaporation or lime treatment) to reserve or preferentially provide a supply of Process Water for the RO Contractor, nor will the Receiver attempt to accelerate dewatering of the phosphogypsum stacks to artificially generate a Process Water supply for the RO Contractor.

4. **Final Production, Permeate Specifications:** The required Permeate specifications to be achieved by Contractor are set forth on Exhibit X attached hereto and made a part hereof.

5. **Limitation on Waste Liquids and Solids to be generated by Contractor.** Contractor shall not generate during the Term of the Extended Agreement, either as a result of pre-treatment or reverse osmosis treatment, nor discharge into the onsite Process Water system, liquid or solid wastes or product of any kind, containing concentrations of the substances listed on Exhibit Y or in excess of those reporting limits set forth on Exhibit Y attached hereto and incorporated herein. Additionally, Contractor shall not discharge or allow to flow into any infrastructure or pipes initially furnished to Contractor by Receiver, any material of any kind, waste, liquid, solid or dissolved solid that will create any scale or other contamination of Receiver's pipes, pumps or infrastructure. Contractor shall be solely responsible, at its sole cost, to remediate, clean or repair any of Receiver's pipes, pumps or infrastructure that may be impacted by the discharge from Contractor's facility.

6. **Rights to Terminate Extended Agreement:** Each party will have the right to terminate the Extended Agreement for the reasons listed below. Neither party will have the right to terminate the Extended Agreement for convenience.

a. The Receiver shall have the right to terminate the Extended Agreement for the following reasons:

(i) by giving forty-five (45) days notice that meteorological conditions experienced to date created a lower than projected Process Water inventory such that 146 million gallons of water will not be available for RO treatment during the term of the Extended Agreement.

(ii) immediately upon receipt of evidence that the quality of the RO reject produced exceeds the maximum concentrations shown on Exhibit Y or with five (5) days notice if the trends of the quality of the RO reject indicate a substantial likelihood that the maximum concentrations shown in Exhibit Y will be exceeded before the Extended Agreement term ends; or

(iii) by giving fourteen (14) days notice that the RO contractor is damaging the site infrastructure or causing the treatability of the remaining process water inventory to become more difficult and expensive due to the addition of the treatment chemicals listed in Exhibit G of the Agreement.

b. The RO Contractor shall have the right to terminate the Extended Agreement for the following reasons:

(i) immediately after the Contractor discovers that it can no longer produce RO reject meeting the requirements of Exhibit Y;

(ii) upon five (5) days written notice that Receiver has failed to supply the requisite Process Water feed supply or supporting infrastructure for fifteen (15) full days (24 hours) out of any thirty (30) consecutive days, exclusive of force majeur events described in the Agreement; or

(iii) upon fourteen (14) days notice that Contractor is unable to consistently and reliably produce, due to no fault of its own, three hundred thousand (300,000) gallons per day of on-specification RO permeate final product when the untreated Process Water feedstock contained levels of dissolved solids in excess of 20,000 milligrams per liter or turbidity in excess of 100 nephelometric turbidity units, as averaged over any consecutive thirty (30) day period.

7. **Price per one thousand gallons:** The Receiver and the successful bidder shall agree to the price for treatment of the Process Water by Contractor during the Term of the Extended Agreement and include this price in the Extended Agreement. The price bid shall be set for each one thousand gallons of RO permeate final product meeting the required specifications. The price shall be based on all of the specifications or terms presented in this clarification. Further, bidders are hereby notified that Receiver will maintain, but will not improve in any way, the utilities an infrastructure currently provided to each bidder by the Receiver. Bidders may price their proposal in such a manner so as to provide Receiver with their lowest priced option. The Receiver will impose no daily or monthly production minimums or maximums in the Extended Agreement.

8. **Monitoring permeate and reject:** Contractor shall, at its expense, be solely responsible for collecting and analyzing samples of permeate and reject produced by Contractor on at least a monthly basis to determine compliance with Exhibits X and Y attached hereto, or such other criteria as Receiver shall determine. All laboratory analyses shall be certified as meeting the standards of the National Environmental Laboratory Accreditation Program (NELAP). Contractor shall report the results of such monitoring to the Receiver, ECT and the DEP prior to submission of its invoice for the month during which the samples were collected in writing by overnight delivery or email. Receiver and DEP shall also have the right to collect and analyze samples of permeate and reject to determine Contractor's conformance with Exhibits X and Y at any time without prior notice. Additionally, Contractor shall report in writing the volume or weight of flocculants, chemicals, re-agents, etc. used each month during the Term of the Extended Agreement.

The Receiver reserves the right to accept or reject any bid or proposal for any reason or for no reason in his sole discretion. The Addendum to the Agreement shall be fully negotiated, executed and delivered by the Receiver and the successful bidder on or before 5:00 p.m. (EDT), June 30, 2004 or such date as the Receiver, in his sole discretion, shall determine.

The Addendum to the Agreement shall be subject to the review and approval of the Florida Department of Environmental Protection, Receiver's environmental consultant and Third Party Engineer. Counsel to Receiver and the Manatee County Circuit Court must approve this Addendum to the Agreement. The successful contractor's existing contract with Receiver will remain unchanged except as it may be modified by the Addendum agreed to based on this invitation to bid and any other terms mutually agreed to by the parties and be construed and applied based on its existing terms.

This printed bid form must be signed by a duly authorized corporate officer of the bidder and submitted to and actually received by Receiver on or before 5:00 p.m. (EDT) June 1, 2004. The opening of the bids will not be public and Receiver reserves the right to select the winning bid or no bid, not just on price, but based on such criteria as he shall determine in his sole discretion. The only bidders to be considered will be USFilter and Florida Pines.

D. BIDDER'S PRICE: $_____ United States Dollars for each 1,000 gallons meeting the minimum specifications established in Exhibit X attached hereto.

E. BIDDER'S CERTIFICATION: I, _____ of _____
Print Name

_____, by my signature below, hereby certify that I am
Print Bidder's Name

duly authorized by _____ to so commit or bind bidder
Print Bidder's Name

to the price offered in Section D above; that my organization and I fully understand and accept, without exception, the terms and specification presented on this Bid Form; and that my organization will agree to extent its current Service Agreement on these terms, without exception, if selected by the Receiver to provide RO services beyond June 30, 2004.

_____
(Signature)

_____
(Date)

EXHIBIT X

FINAL PRODUCT ("PERMEATE") SPECIFICATIONS

All of the water produced under the Fiscal Year 2005 Service Agreement will be discharged to waters of the State and waters of the United States. Accordingly, all of the water produced by the Contractor must meet the State of Florida water quality standards for Class III Fresh Water, which are promulgated in Chapter 62-302 of the Florida Administrative Code. These standards include, *but are not limited to*, the following concentrations:

Parameter	Maximum Concentration*
Alkalinity	≤ 20 mg/L
Un-ionized ammonia	≤ 0.02 mg/L
Antimony	≤ 4.3 mg/L
Arsenic	≤ 0.050 mg/L
Beryllium	≤ 0.00013 mg/L
Cadmium	≤ 0.003 mg/L
Chlorine (total residual)	≤ 0.01 mg/L
Chromium	≤ 0.011 mg/L
Conductance, specific	≤ 1,275 umhos/cm
Copper	≤ 0.039 mg/L
Detergents (MBAs)	≤ 0.5 mg/L
Dissolved oxygen	≥ 5.0 mg/L
Fluoride	≤ 10.0 mg/L
Triholomethanes (total)	≤ 0.47 mg/L
Iron	≤ 1.00 mg/L
Lead	≤ 0.005 mg/L
Mercury	≤ 0.012 µg/L
Nickel	≤ 0.167 mg/L
Oil & Grease	≤ 5.0 mg/L
pH	≥ 6.0 ≤ 8.5 standard units
Phthalate esters	≤ 0.003 mg/L
Radium 226 & 228	≤ 5.0 pCi/L
Radiation, gross alpha	≤ 15.0 pCi/L
Selenium	≤ 0.005 mg/L
Thallium	≤ 0.006 mg/L
Turbidity	≤ 20 NTU
Zinc	≤ 0.387 mg/L

In addition, the final product also must meet the following site-specific criteria:

Parameter	Maximum Concentration*
Ammonia nitrogen	≤ 1.0 mg/L
Total nitrogen	≤ 2.0 mg/L
Total phosphorus	≤ 0.5 mg/L

Notes:

1. * = All concentrations must be determined by utilizing laboratory methods authorized in Title 40 of the Code of the Federal Regulations Part 136.
2. mg/L = milligram per liter.
3. umhos/cm = micromhos per centimeter.
4. µg/L = micrograms per liter.
5. pCi/L = pico-Curies per liter.
6. NTU = nephelometric turbidity unit.

EXHIBIT Y

WASTE LIQUIDS AND SOLIDS SPECIFICATIONS

In addition to the characterization and proper management of "Consumables" as addressed in Section _____ of the Agreement, Contractor shall not generate during the term of the Agreement, either as a result of pre-treatment or reverse osmosis treatment of the ponded water, nor discharge into the onsite process water system, liquid or solid wastes containing concentrations of the following substances in excess of the "reporting limits" listed below without first notifying the Receiver and, in no case, in excess of the "maximum concentrations":

Parameter	Reporting Limit*	Maximum Concentration*
pH	≤ 3.0 ≥ 11.5 standard units	≤ 2.5 ≥ 12.0 standard units
Flush point	≤ 80° Centrigrade	≤ 70° Centrigrade
Arsenic	≥ 2.5 mg/L	≤ 3.75 mg/L
Barium	≥ 50.0 mg/L	≤ 75.0 mg/L
Cadmium	≥ 0.50 mg/L	≤ 0.75 mg/L
Lead	≥ 2.50 mg/L	≤ 3.75 mg/L
Mercury	≥ 0.10 mg/L	≤ 0.15 mg/L
Selenium	≥ 0.50 mg/L	≤ 0.75 mg/L
Silver	≥ 2.50 mg/L	≤ 3.75 mg/L

* = All liquid solid wastes shall be assessed using the procedures specified in Title 40 of the Code of Federal Regulations Part 261 (Identification of Hazardous Waste).

In addition, all liquid wastes discharged into the onsite process water system shall contain less than 1.0 milligrams per liter of total residual chlorine as measured by EPA Method 330.