



**Miami-Dade Water and Sewer Department**

P. O. Box 330316 • 3071 SW 38th Avenue

Miami, Florida 33233-0316

T 305-665-7471

April 24, 2007

miamidade.gov

Certified Mail: 7003 1680 0004 5544 8924  
Return Receipt

Mr. Joseph R. May, P.G.  
UIC Program Manager  
Florida Department of Environmental Protection  
400 North Congress Avenue, Suite 200  
West Palm Beach, Florida 33401

Ref: Miami-Dade Water and Sewer Department (MDWASD), South District  
Wastewater Treatment Plant (WWTP), Permits 61787-001-UO through  
61787-013-UO, and 61787-014-UC through 61787-017-UC

Dear Mr. May:

In accordance FAC 62-550, specific condition 3.k of the referenced operation permits, and specific condition 6.l of the referenced construction permits, attached please find the 2007 sampling results for the annual wastestream analysis of primary, secondary drinking water standards, and minimum criteria. With the exception of Coliform and Nitrogen, Nitrite (as N), the analysis results are below the maximum contaminant levels.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that the qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Please contact me at (786) 552-8116 or Richard M. O'Rourke at (786) 552-8123, if there are any questions regarding this submittal.

Sincerely,

Vicente E. Arrebola, P.E.

Assistant Director, Wastewater

VEA/RMO/ja

c: T. Brown, FDEP/SED

Attachment: South District WWTP – 2007 Annual Wastestream Analysis  
Sampling Results

*Delivering Excellence Every Day*

L07073FDEP-SD-AWA

ADA Coordination  
Agenda Coordination  
Art in Public Places  
Audit and Management Services  
Aviation  
Building Code Compliance  
Building  
Business Development  
Capital Improvements  
Citizen's Independent Transportation Trust  
Communications  
Community Action Agency  
Community & Economic Development  
Community Relations  
Consumer Services  
Corrections & Rehabilitation  
Countywide Healthcare Planning  
Cultural Affairs  
Elections  
Emergency Management  
Employee Relations  
Enterprise Technology Services  
Environmental Resources Management  
Fair Employment Practices  
Finance  
Fire Rescue  
General Services Administration  
Historic Preservation  
Homeless Trust  
Housing Agency  
Housing Finance Authority  
Human Services  
Independent Review Panel  
International Trade Consortium  
Juvenile Assessment Center  
Medical Examiner  
Metropolitan Planning Organization  
Park and Recreation  
Planning and Zoning  
Police  
Procurement Management  
Property Appraiser  
Public Library System  
Public Works  
Safe Neighborhood Parks  
Seaport  
Solid Waste Management  
Strategic Business Management  
Team Metro  
Transit  
Urban Revitalization Task Force  
Vizcaya Museum and Gardens  
Water and Sewer

# **KSA Environmental Laboratory Inc.**

April 13, 2007

Miami Dade Water/Sewer (Goulds)

Attn: Clive Powell

8950 SW 232nd Street

Miami, FL 33190

**RE: Annual Plant Sampling**  
**KSA Workorder: Q001359**

Dear Clive Powell,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on 02/22/07 13:20.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

This data has been produced in accordance with NELAC standards. This report shall not be reproduced except in full, without the written approval of the Laboratory.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Paul K. Canevaro  
V.P. Technical Services

Enclosure(s)

## CASE NARRATIVE

---

KSA Work Order #: Q001359

Project Name: APS

---

### I. Sample Receiving Notes

All samples listed on the Chain of Custody identified with KSA Work Order # Q001359 were received with containers intact, correctly preserved, and at the proper temperature for the requested analyses.

### II. Analytical Data Notes

The analyses were performed in accordance with KSA Environmental Laboratory SOP's and industry-standard methodologies in compliance with FDEP/NELAC criteria. There were no notable problems encountered in the analytical process.

Analysis by methods 549.25, 548.1, 547, 531.1, 525.2, 515.3, and 508.1 were subcontracted to Southern Analytical. Certification Number E84129.

Total Phenols and Sb, As, Pb, Se, Tl analysis were subcontracted to FL Environmental. Certification Number E86006.

Radiological analysis was subcontracted to Florida Radiochemistry. Certification Number E83033.

### III. Quality Control Notes

EPA 608: The LCS for batch 7020651 recovered high for Aldrin and Dieldrin; however, the LCSD as well as the LCS/LCSD RPD were within control limits. Since the target analytes were below MDL and the high recovery would yield a high bias, no further corrective action was necessary.

EPA 410.4: The MS and MSD for batch 7020745 recovered low for COD; however, the LCS and LCSD recovered within acceptable criteria. Sample Combined Effluent was used to prepare the matrix spikes and may be biased low for this analyte. The parent sample is flagged with the FDEP "J" qualifier.

## SAMPLE SUMMARY

	<u>Client ID</u>	<u>Matrix</u>	<u>Sampled</u>	<u>Received</u>
Q001359-01	Combined Effluent	Wastewater	02/22/07 10:17	02/22/07 13:20

Florida Certifications: E86349 & E86616 (Microbiology)

# ANALYTICAL REPORT

Sample ID: Combined Effluent  
Lab #: Q001359-01  
Sampled: 02/22/07 10:17

Project: Annual Plant Sampling  
Work Order #: Q001359  
Matrix: Wastewater

## Primary DW Volatiles by EPA 524.2

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
1,1,1-Trichloroethane	0.22 ug/L U		1	0.22	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
1,1,1-Trichloroethane	0.18 ug/L U		1	0.18	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
1,1,2,2-Tetrachloroethane	0.36 ug/L U		1	0.36	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
1,1,2-Trichloroethane	0.30 ug/L U		1	0.30	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
1,1,2-Trichloroethane	0.36 ug/L U		1	0.36	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
1,1-Dichloroethane	0.31 ug/L U		1	0.31	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
1,1-Dichloroethene	0.25 ug/L U		1	0.25	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
1,1-Dichloroethene	0.25 ug/L U		1	0.25	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
1,2,4-Trichlorobenzene	0.29 ug/L U		1	0.29	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
1,2-Dichlorobenzene	0.28 ug/L U		1	0.28	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
1,2-Dichloroethane	0.23 ug/L U		1	0.23	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
1,2-Dichloroethane	0.29 ug/L U		1	0.29	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
1,2-Dichloropropane	0.41 ug/L U		1	0.41	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
1,2-Dichloropropane	0.25 ug/L U		1	0.25	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
1,4-Dichlorobenzene	0.97 ug/L		1	0.28	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
2-Chloroethylvinyl ether	2.2 ug/L U		1	2.2	5.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Acrolein	2.0 ug/L U		1	2.0	10	624	02/27/07 9:05	02/27/07 14:00	7020758
Acrylonitrile	5.2 ug/L U		1	5.2	10	624	02/27/07 9:05	02/27/07 14:00	7020758
Benzene	0.36 ug/L U		1	0.36	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Benzene	0.30 ug/L U		1	0.30	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
Bromodichloromethane	0.26 ug/L U		1	0.26	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Bromoform	0.41 ug/L U		1	0.41	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Bromomethane	0.77 ug/L U		1	0.77	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Carbon tetrachloride	0.15 ug/L U		1	0.15	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Carbon Tetrachloride	0.24 ug/L U		1	0.24	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
Chlorobenzene	0.27 ug/L U		1	0.27	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
Chlorobenzene	0.23 ug/L U		1	0.23	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Chlorodibromomethane	0.30 ug/L U		1	0.30	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Chloroethane	0.66 ug/L U		1	0.66	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Chloroform	2.3 ug/L		1	0.30	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Chloromethane	0.72 ug/L U		1	0.72	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
cis-1,2-Dichloroethene	0.32 ug/L		1	0.24	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
cis-1,3-Dichloropropene	0.32 ug/L U		1	0.32	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Ethylbenzene	0.32 ug/L U		1	0.32	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
Ethylbenzene	0.33 ug/L U		1	0.33	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Methylene chloride	0.42 ug/L U		1	0.42	5.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Methylene chloride	0.42 ug/L U		1	0.42	1.0	524.2	03/02/07 13:41	03/02/07 20:30	7030046
Styrene	0.27 ug/L U		1	0.27	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
Tetrachloroethene	2.0 ug/L		1	0.34	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Tetrachloroethene	1.6 ug/L		1	0.37	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046

Florida Certifications: E86349 & E86616 (Microbiology)

# ANALYTICAL REPORT

Sample ID: Combined Effluent  
Lab #: Q001359-01  
Sampled: 02/22/07 10:17

Project: Annual Plant Sampling  
Work Order #: Q001359  
Matrix: Wastewater

## Priority Pollutant Volatiles by EPA 624

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
Toluene	0.31 ug/L U		1	0.31	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Toluene	0.41 ug/L U		1	0.41	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
trans-1,2-Dichloroethene	0.38 ug/L U		1	0.38	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
trans-1,2-Dichloroethene	0.31 ug/L U		1	0.31	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
trans-1,3-Dichloropropene	0.34 ug/L U		1	0.34	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Trichloroethene	0.38 ug/L		1	0.24	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
Trichloroethene	0.53 ug/L I		1	0.42	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Vinyl chloride	0.38 ug/L U		1	0.38	0.50	524.2	03/02/07 13:41	03/02/07 20:30	7030046
Vinyl chloride	0.31 ug/L U		1	0.31	1.0	624	02/27/07 9:05	02/27/07 14:00	7020758
Xylenes, Total	0.98 ug/L U		1	0.98	1.5	524.2	03/02/07 13:41	03/02/07 20:30	7030046

## Surrogate Recovery

### % Recovery

### % Recovery Limits

1,2-Dichlorobenzene-d4	86.8 %	0-200	7030046
1,2-Dichloroethane-d4	112 %	72-136	7020758
4-Bromofluorobenzene	83.2 %	80-120	7030046
4-Bromofluorobenzene	97.2 %	79-117	7020758
Dibromofluoromethane	117 %	77-131	7020758
Toluene-d8	98.2 %	78-125	7020758

## Semivolatiles by GC/MS

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
2,4,6-Trichlorophenol	1.5 ug/L U		1	1.5	1.9	625	02/23/07 9:11	02/26/07 22:13	7020639
2-Chlorophenol	1.4 ug/L U		1	1.4	1.9	625	02/23/07 9:11	02/26/07 22:13	7020639
Anthracene	0.033 ug/L U		1	0.033	0.28	625	02/23/07 9:11	02/26/07 22:13	7020639
Butyl benzyl phthalate	1.9 ug/L U		1	1.9	4.7	625	02/23/07 9:11	02/26/07 22:13	7020639
Dimethyl phthalate	1.6 ug/L U		1	1.6	4.7	625	02/23/07 9:11	02/26/07 22:13	7020639
Naphthalene	0.053 ug/L U		1	0.053	9.4	625	02/23/07 9:11	02/26/07 22:13	7020639
Phenanthrene	0.080 ug/L U		1	0.080	0.19	625	02/23/07 9:11	02/26/07 22:13	7020639
Phenol	1.8 ug/L U		1	1.8	1.9	625	02/23/07 9:11	02/26/07 22:13	7020639

## Surrogate Recovery

### % Recovery

### % Recovery Limits

2,4,6-Tribromophenol	33.2 %	31-139	7020639
2-Fluorobiphenyl	46.0 %	43-119	7020639
2-Fluorophenol	27.4 %	19-108	7020639
Nitrobenzene-d5	50.6 %	33-120	7020639
Phenol-d5	13.2 %	10-117	7020639
Terphenyl-d14	56.8 %	37-129	7020639

Florida Certifications: E86349 & E86616 (Microbiology)

# ANALYTICAL REPORT

Sample ID: Combined Effluent  
Lab #: Q001359-01  
Sampled: 02/22/07 10:17

Project: Annual Plant Sampling  
Work Order #: Q001359  
Matrix: Wastewater

## Semivolatiles by GC

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
1,2-Dibromo-3-chloropropane	0.0036 ug/L U		1	0.0036	0.040	504.1	03/06/07 9:08	03/06/07 14:38	7030126
1,2-Dibromoethane (EDB)	0.0053 ug/L U		1	0.0053	0.020	504.1	03/06/07 9:08	03/06/07 14:38	7030126
Aldrin	0.0040 ug/L U		1	0.0040	0.0046	608	02/23/07 11:41	03/05/07 4:31	7020651
Dieldrin	0.0028 ug/L U		1	0.0028	0.0046	608	02/23/07 11:41	03/05/07 4:31	7020651

## Surrogate Recovery

### % Recovery

### % Recovery Limits

1,1,1,2-Tetrachloroethane	114 %	64-125	7030126
Decachlorobiphenyl	61.9 %	41-129	7020651
Tetrachloro-meta-xylene	80.5 %	42-129	7020651

## Metals

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
Aluminum, Total	0.083 mg/L I, V		1	0.035	0.20	200.7	02/22/07 20:26	02/23/07 17:13	7020630
Barium, Total	0.0074 mg/L I		1	0.00098	0.050	200.7	02/22/07 20:26	02/23/07 17:13	7020630
Beryllium, Total	0.0018 mg/L U		1	0.0018	0.0040	200.7	02/22/07 20:26	02/23/07 17:13	7020630
Cadmium, Total	0.0021 mg/L U		1	0.0021	0.0050	200.7	02/22/07 20:26	02/23/07 17:13	7020630
Chromium, Total	0.0025 mg/L U		1	0.0025	0.0050	200.7	02/22/07 20:26	02/23/07 17:13	7020630
Copper, Total	0.0060 mg/L U		1	0.0060	0.010	200.7	02/22/07 20:26	02/23/07 17:13	7020630
Iron, Total	0.14 mg/L		1	0.029	0.050	200.7	02/22/07 20:26	02/23/07 17:13	7020630
Manganese, Total	0.012 mg/L		1	0.0034	0.0050	200.7	02/22/07 20:26	02/23/07 17:13	7020630
Mercury, Total	0.000060 mg/L I, V		1	0.000060	0.00020	245.1	02/22/07 20:19	02/23/07 15:33	7020629
Nickel, Total	0.0059 mg/L U		1	0.0059	0.010	200.7	02/22/07 20:26	02/23/07 17:13	7020630
Silver, Total	0.00088 mg/L U		1	0.00088	0.0050	200.7	02/22/07 20:26	02/23/07 17:13	7020630
Sodium, Total	71 mg/L		1	0.35	1.0	200.7	02/22/07 20:26	02/23/07 17:13	7020630
Zinc, Total	0.015 mg/L I		1	0.0042	0.020	200.7	02/22/07 20:26	02/23/07 17:13	7020630

## Wet Chemistry

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
BOD	9.0 mg/L		1	1.0	2.0	405.1	02/23/07 14:30	02/23/07 14:30	7020797
Chloride	100 mg/L		1	0.20	0.40	300.0	02/23/07 18:00	02/23/07 18:00	7020699
COD	73 mg/L J		1	8.4	10	410.4	02/26/07 12:40	02/26/07 12:40	7020745
Color	50 cu		1	2.5	2.5	110.2	02/23/07 10:00	02/23/07 10:00	7020647
Conductivity	857 umhos/cm		1	0.00	0.00	120.1	02/27/07 15:00	02/27/07 15:00	7020764
Cyanide, Total	0.026 mg/L		1	0.0040	0.0050	335.3	02/23/07 11:30	02/25/07 13:40	7020687
Fluoride	0.28 mg/L		1	0.054	0.20	300.0	02/27/07 9:15	02/27/07 9:15	7020746
MBAS	0.11 mg/L		1	0.043	0.075	425.1	02/23/07 15:00	02/23/07 15:00	7020685
Nitrogen, Ammonia (as N)	23 mg/L		20	0.29	0.40	350.1	02/23/07 13:14	02/23/07 16:16	7020657
Nitrogen, Kjeldahl, Total	31 mg/L		50	4.5	12	351.2	02/28/07 10:13	02/28/07 18:20	7030006

Florida Certifications: E86349 & E86616 (Microbiology)

## ANALYTICAL REPORT

Sample ID: Combined Effluent  
 Lab #: Q001359-01  
 Sampled: 02/22/07 10:17

Project: Annual Plant Sampling  
 Work Order #: Q001359  
 Matrix: Wastewater

## Wet Chemistry

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
Nitrogen, Nitrate (as N)	0.37 mg/L I		1	0.062	0.50	300.0	02/23/07 18:00	02/23/07 18:00	7020699
Nitrogen, Nitrite (as N)	1.6 mg/L		1	0.021	0.50	300.0	02/23/07 14:00	02/23/07 14:00	7020810
Nitrogen, Organic	8.0 mg/L I		50	4.5	12	Calc	02/28/07 10:13	02/28/07 18:20	[CALC]
Odor	0.0 t.o.n. U		1	0.0	0.0	140.1	02/23/07 10:00	02/23/07 10:00	7020701
pH	6.92 s.u.		1	0.00	0.00	150.1	02/23/07 15:00	02/23/07 15:00	7020672
Phosphorus, Total	2.7 mg/L V		1	0.047	0.10	365.4	02/23/07 7:30	02/26/07 15:38	7020715
Solids, Total Dissolved	450 mg/L		1	8.9	10	160.1	02/26/07 16:30	02/26/07 16:30	7020737
Sulfate	28 mg/L		1	0.14	1.0	300.0	02/23/07 18:00	02/23/07 18:00	7020699

## Subcontract Data

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
Carbofuran	0.5 ug/L U		1	0.5		531.1			
Oxamyl	0.5 ug/L U		1	0.5		531.1			

## Subcontract Data - 508.1

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
Chlordane	0.05 ug/L U		1	0.05		508.1	03/01/07 10:00	03/07/07 21:42	
PCB 1016	0.2 ug/L U		1	0.2		508.1	03/01/07 10:00	03/02/07 5:36	
PCB 1221	0.2 ug/L U		1	0.2		508.1	03/01/07 10:00	03/02/07 5:36	
PCB 1232	0.2 ug/L U		1	0.2		508.1	03/01/07 10:00	03/02/07 5:36	
PCB 1242	0.2 ug/L U		1	0.2		508.1	03/01/07 10:00	03/02/07 5:36	
PCB 1248	0.2 ug/L U		1	0.2		508.1	03/01/07 10:00	03/02/07 5:36	
PCB 1254	0.2 ug/L U		1	0.2		508.1	03/01/07 10:00	03/02/07 5:36	
PCB 1260	0.2 ug/L U		1	0.2		508.1	03/01/07 10:00	03/02/07 5:36	
Total PCBs	0.2 ug/L U		1	0.2		508.1	03/01/07 10:00	03/02/07 5:36	
Toxaphene	0.5 ug/L U		1	0.5		508.1	03/01/07 10:00	03/07/07 21:42	

## Subcontract Data - 515.3

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
2,4,5-TP (Silvex)	0.25 ug/L U		1	0.25		515.3	02/27/07 9:30	02/28/07 16:28	
2,4-D	1 ug/L U		1	1		515.3	02/27/07 9:30	02/28/07 16:28	
Dalapon	1 ug/L U		1	1		515.3	02/27/07 9:30	02/28/07 16:28	
Dinoseb	0.5 ug/L U		1	0.5		515.3	02/27/07 9:30	02/28/07 16:28	
Pentachlorophenol	0.1 ug/L U		1	0.1		515.3	02/27/07 9:30	02/28/07 16:28	
Picloram	0.75 ug/L U		1	0.75		515.3	02/27/07 9:30	02/28/07 16:28	

Florida Certifications: E86349 & E86616 (Microbiology)



## ANALYTICAL REPORT

Sample ID: Combined Effluent  
 Lab #: Q001359-01  
 Sampled: 02/22/07 10:17

Project: Annual Plant Sampling  
 Work Order #: Q001359  
 Matrix: Wastewater

## Subcontract Data - 525.2

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
Alachlor	0.2 ug/L U		1	0.2		525.2	03/01/07 10:00	03/02/07 5:36	
Atrazine	0.06 ug/L U		1	0.06		525.2	03/01/07 10:00	03/02/07 5:36	
Benzo (a) pyrene	0.1 ug/L U		1	0.1		525.2	03/01/07 10:00	03/02/07 5:36	
Di(2-ethylhexyl)adipate	0.3 ug/L U		1	0.3		525.2	03/01/07 10:00	03/02/07 5:36	
Di(2-ethylhexyl)phthalate	ug/L U		1	ND		525.2	03/01/07 10:00	03/02/07 5:36	
Endrin	0.1 ug/L U		1	0.1		525.2	03/01/07 10:00	03/02/07 5:36	
gamma-BHC	0.06 ug/L U		1	0.06		525.2	03/01/07 10:00	03/02/07 5:36	
Heptachlor	0.08 ug/L U		1	0.08		525.2	03/01/07 10:00	03/02/07 5:36	
Heptachlor epoxide	0.1 ug/L U		1	0.1		525.2	03/01/07 10:00	03/02/07 5:36	
Hexachlorobenzene	0.05 ug/L U		1	0.05		525.2	03/01/07 10:00	03/02/07 5:36	
Hexachlorocyclopentadiene	0.2 ug/L U		1	0.2		525.2	03/01/07 10:00	03/02/07 5:36	
Methoxychlor	0.05 ug/L U		1	0.05		525.2	03/01/07 10:00	03/02/07 5:36	
Simazine	0.07 ug/L U		1	0.07		525.2	03/01/07 10:00	03/02/07 5:36	

## Subcontract Data - 547

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
Glyphosate	10 ug/L U		1	10		547		03/06/07 20:11	

## Subcontract Data - 548.1

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
Endothall	20 ug/L U		1	20		548.1	03/01/07 10:00	03/06/07 17:53	

## Subcontract Data - 549.2

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
Diquat	1 ug/L U		1	1		549.2	02/27/07 9:30	02/28/07 13:21	

## Subcontract Data - 200.8

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
Antimony	0.0004 mg/L U		1	0.0004	0.0012	200.8	02/27/07 0:00	02/27/07 15:27	
Arsenic	0.0012 mg/L		1	0.00012	0.00036	200.8	02/27/07 0:00	02/27/07 15:27	
Lead	0.0011 mg/L		1	1e-005	3e-005	200.8	02/27/07 0:00	02/27/07 15:27	
Selenium	0.00030 mg/L U		1	0.00030	0.00090	200.8	02/27/07 0:00	02/27/07 15:27	
Thallium	2e-005 mg/L U		1	2e-005	6e-005	200.8	02/27/07 0:00	02/27/07 15:27	

Florida Certifications: E86349 & E86616 (Microbiology)

# ANALYTICAL REPORT

Sample ID: Combined Effluent  
 Lab #: Q001359-01  
 Sampled: 02/22/07 10:17

Project: Annual Plant Sampling  
 Work Order #: Q001359  
 Matrix: Wastewater

## Subcontract Data - 420.2

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
Phenols, Total	0.031 mg/L U		1	0.031	0.093	420.2	03/15/07 0:00	03/15/07 16:57	

## Subcontract Data

Parameter	Analytical Results	Q	DF	MDL	PQL	Analysis Method	Prep Date/Time	Analysis Date/Time	Analytical Batch
Gross Alpha	1.5+/-1.1 pCi/L		1	1.3		900.0	03/01/07 0:00	03/02/07 0:00	
Radium-226	0.2+/-0.1 pCi/L		1	0.1		903.1	03/05/07 0:00	03/13/07 0:00	
Radium-228	0.8+/-0.5 pCi/L U		1	0.8		Ra-05	03/05/07 0:00	03/13/07 0:00	

Florida Certifications: E86349 & E86616 (Microbiology)

# QUALITY CONTROL FOR :Q001359

Analyte	Result	MDL	PQL	Units	%REC	%REC Limits	RPD	RPD Limit
---------	--------	-----	-----	-------	------	-------------	-----	-----------

## Priority Pollutant Volatiles by EPA 624 - Quality Control

Blank (7020758-BLK1)

Prepared & Analyzed: 27-Feb-07

1,1,1-Trichloroethane	0.18	U	0.18	1.0	ug/L
1,1,2,2-Tetrachloroethane	0.36	U	0.36	1.0	ug/L
1,1,2-Trichloroethane	0.36	U	0.36	1.0	ug/L
1,1-Dichloroethane	0.31	U	0.31	1.0	ug/L
1,1-Dichloroethene	0.25	U	0.25	1.0	ug/L
1,2-Dichloroethane	0.29	U	0.29	1.0	ug/L
1,2-Dichloropropane	0.41	U	0.41	1.0	ug/L
2-Chloroethylvinyl ether	2.2	U	2.2	5.0	ug/L
Acrolein	2.0	U	2.0	10	ug/L
Acrylonitrile	5.2	U	5.2	10	ug/L
Benzene	0.36	U	0.36	1.0	ug/L
Bromodichloromethane	0.26	U	0.26	1.0	ug/L
Bromoform	0.41	U	0.41	1.0	ug/L
Bromomethane	0.77	U	0.77	1.0	ug/L
Carbon tetrachloride	0.15	U	0.15	1.0	ug/L
Chlorobenzene	0.23	U	0.23	1.0	ug/L
Chlorodibromomethane	0.30	U	0.30	1.0	ug/L
Chloroethane	0.66	U	0.66	1.0	ug/L
Chloroform	0.30	U	0.30	1.0	ug/L
Chloromethane	0.72	U	0.72	1.0	ug/L
cis-1,3-Dichloropropene	0.32	U	0.32	1.0	ug/L
Ethylbenzene	0.33	U	0.33	1.0	ug/L
Methylene chloride	0.42	U	0.42	5.0	ug/L
Tetrachloroethene	0.34	U	0.34	1.0	ug/L
Toluene	0.31	U	0.31	1.0	ug/L
trans-1,2-Dichloroethene	0.38	U	0.38	1.0	ug/L
trans-1,3-Dichloropropene	0.34	U	0.34	1.0	ug/L
Trichloroethene	0.42	U	0.42	1.0	ug/L
Vinyl chloride	0.31	U	0.31	1.0	ug/L

Surrogate: 1,2-Dichloroethane-d4

120 72-136

Surrogate: 4-Bromofluorobenzene

96.5 79-117

Surrogate: Dibromofluoromethane

130 77-131

Surrogate: Toluene-d8

111 78-125

Florida Certifications: E86349 & E86616 (Microbiology)

# QUALITY CONTROL FOR :Q001359

Analyte	Result	MDL	PQL	Units	%REC	%REC Limits	RPD	RPD Limit
---------	--------	-----	-----	-------	------	-------------	-----	-----------

## Priority Pollutant Volatiles by EPA 624 - Quality Control

LCS (7020758-BS1)				Prepared & Analyzed: 27-Feb-07				
1,1,1-Trichloroethane				102	79-133			
1,1,2,2-Tetrachloroethane				96.5	78-127			
1,1,2-Trichloroethane				95.0	77-123			
1,1-Dichloroethane				99.0	76-127			
1,1-Dichloroethene				99.5	73-142			
1,2-Dichloropropane				93.5	77-125			
Benzene				98.5	80-126			
Chlorobenzene				94.5	82-118			
Chloroform				106	78-126			
Ethylbenzene				94.0	83-122			
Tetrachloroethene				89.5	76-126			
Toluene				93.5	77-123			
trans-1,2-Dichloroethene				98.5	77-126			
Trichloroethene				92.5	79-126			
Vinyl chloride				87.5	67-127			
Surrogate: 1,2-Dichloroethane-d4				99.0	72-136			
Surrogate: 4-Bromofluorobenzene				101	79-117			
Surrogate: Dibromofluoromethane				111	77-131			
Surrogate: Toluene-d8				99.2	78-125			

## Priority Pollutant Volatiles by EPA 624 - Quality Control

LCS Dup (7020758-BSD1)				Prepared & Analyzed: 27-Feb-07				
1,1,1-Trichloroethane				104	79-133	1.94	20	
1,1,2,2-Tetrachloroethane				98.5	78-127	2.05	20	
1,1,2-Trichloroethane				99.0	77-123	4.12	20	
1,1-Dichloroethane				102	76-127	2.99	20	
1,1-Dichloroethene				101	73-142	1.50	20	
1,2-Dichloropropane				96.5	77-125	3.16	20	
Benzene				101	80-126	2.51	20	
Chlorobenzene				96.5	82-118	2.09	20	
Chloroform				109	78-126	2.79	20	
Ethylbenzene				97.5	83-122	3.66	20	
Tetrachloroethene				93.0	76-126	3.84	20	
Toluene				96.5	77-123	3.16	20	
trans-1,2-Dichloroethene				102	77-126	3.49	20	
Trichloroethene				94.5	79-126	2.14	20	
Vinyl chloride				89.5	67-127	2.26	20	
Surrogate: 1,2-Dichloroethane-d4				100	72-136			
Surrogate: 4-Bromofluorobenzene				101	79-117			
Surrogate: Dibromofluoromethane				109	77-131			
Surrogate: Toluene-d8				99.8	78-125			

Florida Certifications: E86349 & E86616 (Microbiology)

# QUALITY CONTROL FOR :Q001359

Analyte	Result	MDL	PQL	Units	%REC	%REC Limits	RPD	RPD Limit
---------	--------	-----	-----	-------	------	-------------	-----	-----------

## Priority Pollutant Volatiles by EPA 624 - Quality Control

Matrix Spike (7020758-MS1)		Source: Q001382-01			Prepared & Analyzed: 27-Feb-07			
1,1,1-Trichloroethane					138	70-130		
1,1,2,2-Tetrachloroethane					104	70-130		
1,1,2-Trichloroethane					114	70-130		
1,1-Dichloroethane					136	70-130		
1,1-Dichloroethene					140	70-130		
1,2-Dichloropropane					114	70-130		
Benzene					129	70-130		
Chlorobenzene					102	70-130		
Chloroform					146	70-130		
Ethylbenzene					108	70-130		
Tetrachloroethene					106	70-130		
Toluene					114	70-130		
trans-1,2-Dichloroethene					144	70-130		
Trichloroethene					110	70-130		
Vinyl chloride					114	70-130		
Surrogate: 1,2-Dichloroethane-d4					128	72-136		
Surrogate: 4-Bromofluorobenzene					104	79-117		
Surrogate: Dibromofluoromethane					128	77-131		
Surrogate: Toluene-d8					109	78-125		

## Primary DW Volatiles by EPA 524.2 - Quality Control

Blank (7030046-BLK1)		Prepared & Analyzed: 02-Mar-07						
1,1,1-Trichloroethane	0.22	U	0.22	0.50	ug/L			
1,1,2-Trichloroethane	0.30	U	0.30	0.50	ug/L			
1,1-Dichloroethene	0.25	U	0.25	0.50	ug/L			
1,2,4-Trichlorobenzene	0.29	U	0.29	0.50	ug/L			
1,2-Dichlorobenzene	0.28	U	0.28	0.50	ug/L			
1,2-Dichloroethane	0.23	U	0.23	0.50	ug/L			
1,2-Dichloropropane	0.25	U	0.25	0.50	ug/L			
1,4-Dichlorobenzene	0.28	U	0.28	0.50	ug/L			
Benzene	0.30	U	0.30	0.50	ug/L			
Carbon Tetrachloride	0.24	U	0.24	0.50	ug/L			
Chlorobenzene	0.27	U	0.27	0.50	ug/L			
cis-1,2-Dichloroethene	0.24	U	0.24	0.50	ug/L			
Ethylbenzene	0.32	U	0.32	0.50	ug/L			
Methylene chloride	0.42	U	0.42	1.0	ug/L			
Styrene	0.27	U	0.27	0.50	ug/L			
Tetrachloroethene	0.37	U	0.37	0.50	ug/L			
Toluene	0.41	U	0.41	0.50	ug/L			
trans-1,2-Dichloroethene	0.31	U	0.31	0.50	ug/L			
Trichloroethene	0.24	U	0.24	0.50	ug/L			
Vinyl chloride	0.38	U	0.38	0.50	ug/L			
Xylenes, Total	0.98	U	0.98	1.5	ug/L			
Surrogate: 1,2-Dichlorobenzene-d4						85.8	0-200	
Surrogate: 4-Bromofluorobenzene						84.5	80-120	

Florida Certifications: E86349 & E86616 (Microbiology)

# QUALITY CONTROL FOR :Q001359

Analyte	Result	MDL	PQL	Units	%REC	%REC Limits	RPD	RPD Limit
---------	--------	-----	-----	-------	------	-------------	-----	-----------

## Primary DW Volatiles by EPA 524.2 - Quality Control

LCS (7030046-BS1)					Prepared & Analyzed: 02-Mar-07			
1,1,1-Trichloroethane					91.8	70-130		
1,1,2-Trichloroethane					93.2	70-130		
1,1-Dichloroethene					91.6	70-130		
1,2,4-Trichlorobenzene					79.6	70-130		
1,2-Dichlorobenzene					90.2	70-130		
1,2-Dichloroethane					90.2	70-130		
1,2-Dichloropropane					93.0	70-130		
1,4-Dichlorobenzene					89.6	70-130		
Benzene					92.6	70-130		
Carbon Tetrachloride					95.6	70-130		
Chlorobenzene					91.4	70-130		
cis-1,2-Dichloroethene					89.6	70-130		
Ethylbenzene					93.4	70-130		
Methylene chloride					90.2	70-130		
Styrene					93.4	70-130		
Tetrachloroethene					92.0	70-130		
Toluene					91.4	70-130		
trans-1,2-Dichloroethene					88.4	70-130		
Trichloroethene					89.6	70-130		
Vinyl chloride					84.6	70-130		
Xylenes, Total					94.7	70-130		
Surrogate: 1,2-Dichlorobenzene-d4					91.2	0-200		
Surrogate: 4-Bromofluorobenzene					90.0	80-120		

## Semivolatiles by GC/MS - Quality Control

Blank (7020639-BLK1)						Prepared: 23-Feb-07 Analyzed: 26-Feb-07		
2,4,6-Trichlorophenol	1.5	U	1.5	2.0	ug/L			
2-Chlorophenol	1.5	U	1.5	2.0	ug/L			
Anthracene	0.035	U	0.035	0.30	ug/L			
Butyl benzyl phthalate	2.0	U	2.0	5.0	ug/L			
Dimethyl phthalate	1.7	U	1.7	5.0	ug/L			
Naphthalene	0.057	U	0.057	10	ug/L			
Phenanthrene	0.085	U	0.085	0.20	ug/L			
Phenol	2.0	U	2.0	2.0	ug/L			
Surrogate: 2,4,6-Tribromophenol						59.3	31-139	
Surrogate: 2-Fluorobiphenyl						70.2	43-119	
Surrogate: 2-Fluorophenol						63.5	19-108	
Surrogate: Nitrobenzene-d5						75.2	33-120	
Surrogate: Phenol-d5						73.3	10-117	
Surrogate: Terphenyl-d14						75.4	37-129	

Florida Certifications: E86349 & E86616 (Microbiology)

# QUALITY CONTROL FOR :Q001359

Analyte	Result	MDL	PQL	Units	%REC	%REC Limits	RPD	RPD Limit
---------	--------	-----	-----	-------	------	-------------	-----	-----------

## Semivolatiles by GC/MS - Quality Control

### LCS (7020639-BS1)

Prepared: 23-Feb-07 Analyzed: 26-Feb-07

2,4,6-Trichlorophenol	60.0	59-137
2-Chlorophenol	74.0	57-118
Anthracene	80.8	56-140
Butyl benzyl phthalate	87.2	75-140
Dimethyl phthalate	87.8	78-127
Naphthalene	84.5	39-131
Phenanthrene	81.0	51-142
Phenol	79.0	27-126
Surrogate: 2,4,6-Tribromophenol	58.8	31-139
Surrogate: 2-Fluorobiphenyl	61.2	43-119
Surrogate: 2-Fluorophenol	72.0	19-108
Surrogate: Nitrobenzene-d5	64.4	33-120
Surrogate: Phenol-d5	69.9	10-117
Surrogate: Terphenyl-d14	90.2	37-129

## Semivolatiles by GC/MS - Quality Control

### LCS Dup (7020639-BSD1)

Prepared: 23-Feb-07 Analyzed: 26-Feb-07

2,4,6-Trichlorophenol	60.8	59-137	1.32	20
2-Chlorophenol	71.5	57-118	3.44	20
Anthracene	80.8	56-140	0.00	20
Butyl benzyl phthalate	94.2	75-140	7.72	20
Dimethyl phthalate	95.2	78-127	8.09	20
Naphthalene	81.5	39-131	3.61	20
Phenanthrene	81.0	51-142	0.00	20
Phenol	80.2	27-126	1.51	20
Surrogate: 2,4,6-Tribromophenol	56.8	31-139		
Surrogate: 2-Fluorobiphenyl	58.4	43-119		
Surrogate: 2-Fluorophenol	49.7	19-108		
Surrogate: Nitrobenzene-d5	71.0	33-120		
Surrogate: Phenol-d5	23.2	10-117		
Surrogate: Terphenyl-d14	96.2	37-129		

## Semivolatiles by GC - Quality Control

### Blank (7020651-BLK1)

Prepared: 23-Feb-07 Analyzed: 04-Mar-07

Aldrin	0.0043	U	0.0043	0.0050	ug/L		
Dieldrin	0.0030	U	0.0030	0.0050	ug/L		
Surrogate: Decachlorobiphenyl						101	41-129
Surrogate: Tetrachloro-meta-xylene						95.6	42-129

## Semivolatiles by GC - Quality Control

### LCS (7020651-BS1)

Prepared: 23-Feb-07 Analyzed: 04-Mar-07

Aldrin	127	56-120
Dieldrin	138	51-133
Surrogate: Decachlorobiphenyl	72.8	41-129
Surrogate: Tetrachloro-meta-xylene	98.0	42-129

Florida Certifications: E86349 & E86616 (Microbiology)

# QUALITY CONTROL FOR :Q001359

Analyte	Result	MDL	PQL	Units	%REC	%REC Limits	RPD	RPD Limit
---------	--------	-----	-----	-------	------	-------------	-----	-----------

## Semivolatiles by GC - Quality Control

### LCS Dup (7020651-BSD1)

Prepared: 23-Feb-07 Analyzed: 05-Mar-07

Aldrin					106	56-120	18.0	20
Dieldrin					118	51-133	15.6	20
Surrogate: Decachlorobiphenyl					51.2	41-129		
Surrogate: Tetrachloro-meta-xylene					80.8	42-129		

## Semivolatiles by GC - Quality Control

### Blank (7030126-BLK1)

Prepared & Analyzed: 06-Mar-07

1,2-Dibromo-3-chloropropane	0.0036	U	0.0036	0.040	ug/L			
1,2-Dibromoethane (EDB)	0.0053	U	0.0053	0.020	ug/L			
Surrogate: 1,1,1,2-Tetrachloroethane						105	64-125	

## Semivolatiles by GC - Quality Control

### LCS (7030126-BS1)

Prepared & Analyzed: 06-Mar-07

1,2-Dibromo-3-chloropropane					88.0	70-130		
1,2-Dibromoethane (EDB)					83.6	70-130		
Surrogate: 1,1,1,2-Tetrachloroethane					103	64-125		

## Semivolatiles by GC - Quality Control

### LCS Dup (7030126-BSD1)

Prepared & Analyzed: 06-Mar-07

1,2-Dibromo-3-chloropropane					82.0	70-130	7.06	20
1,2-Dibromoethane (EDB)					76.8	70-130	8.48	20
Surrogate: 1,1,1,2-Tetrachloroethane					101	64-125		

## Semivolatiles by GC - Quality Control

### Matrix Spike (7030126-MS1)

Source: Q001453-03

Prepared & Analyzed: 06-Mar-07

1,2-Dibromo-3-chloropropane					109	70-130		
1,2-Dibromoethane (EDB)					116	70-130		
Surrogate: 1,1,1,2-Tetrachloroethane					103	64-125		

## Metals - Quality Control

### Blank (7020629-BLK1)

Prepared: 22-Feb-07 Analyzed: 23-Feb-07

Mercury, Total	0.000072	I	0.000060	0.00020	mg/L			
----------------	----------	---	----------	---------	------	--	--	--

## Metals - Quality Control

### LCS (7020629-BS1)

Prepared: 22-Feb-07 Analyzed: 23-Feb-07

Mercury, Total						99.1	85-115	
----------------	--	--	--	--	--	------	--------	--

## Metals - Quality Control

### Matrix Spike (7020629-MS1)

Source: Q001353-01

Prepared: 22-Feb-07 Analyzed: 23-Feb-07

Mercury, Total						96.5	75-125	
----------------	--	--	--	--	--	------	--------	--

## Metals - Quality Control

### Matrix Spike Dup (7020629-MSD1)

Source: Q001353-01

Prepared: 22-Feb-07 Analyzed: 23-Feb-07

Mercury, Total						87.0	75-125	10.4
								20



# **QUALITY CONTROL FOR :Q001359**

Analyte	Result	MDL	PQL	Units	%REC	%REC Limits	RPD	RPD Limit
---------	--------	-----	-----	-------	------	-------------	-----	-----------

## **Metals - Quality Control**

### **Blank (7020630-BLK1)**

Prepared: 22-Feb-07 Analyzed: 23-Feb-07

Aluminum, Total	0.085	I	0.035	0.20	mg/L
Barium, Total	0.00098	U	0.00098	0.050	mg/L
Beryllium, Total	0.0018	U	0.0018	0.0040	mg/L
Cadmium, Total	0.0021	U	0.0021	0.0050	mg/L
Chromium, Total	0.0025	U	0.0025	0.0050	mg/L
Copper, Total	0.0060	U	0.0060	0.010	mg/L
Iron, Total	0.029	U	0.029	0.050	mg/L
Manganese, Total	0.0034	U	0.0034	0.0050	mg/L
Nickel, Total	0.0059	U	0.0059	0.010	mg/L
Silver, Total	0.00088	U	0.00088	0.0050	mg/L
Sodium, Total	0.35	U	0.35	1.0	mg/L
Zinc, Total	0.0042	U	0.0042	0.020	mg/L

## **Metals - Quality Control**

### **LCS (7020630-BS1)**

Prepared: 22-Feb-07 Analyzed: 23-Feb-07

Aluminum, Total	101	85-115
Barium, Total	100	85-115
Beryllium, Total	106	85-115
Cadmium, Total	105	85-115
Chromium, Total	110	85-115
Copper, Total	104	85-115
Iron, Total	101	85-115
Manganese, Total	96.3	85-115
Nickel, Total	106	85-115
Silver, Total	106	85-115
Sodium, Total	86.9	85-115
Zinc, Total	107	85-115

## **Metals - Quality Control**

### **Matrix Spike (7020630-MS1)**

Source: Q001306-01

Prepared: 22-Feb-07 Analyzed: 23-Feb-07

Aluminum, Total	106	70-130
Barium, Total	97.0	70-130
Beryllium, Total	106	70-130
Cadmium, Total	106	70-130
Chromium, Total	109	70-130
Copper, Total	107	70-130
Iron, Total	109	70-130
Manganese, Total	95.5	70-130
Nickel, Total	107	70-130
Silver, Total	107	70-130
Sodium, Total	100	70-130
Zinc, Total	113	70-130

Florida Certifications: E86349 & E86616 (Microbiology)

# QUALITY CONTROL FOR :Q001359

Analyte	Result	MDL	PQL	Units	%REC	%REC Limits	RPD	RPD Limit
---------	--------	-----	-----	-------	------	-------------	-----	-----------

## Metals - Quality Control

<b>Matrix Spike Dup (7020630-MSD1)</b>		<b>Source: Q001306-01</b>			<b>Prepared: 22-Feb-07 Analyzed: 23-Feb-07</b>			
Aluminum, Total					103	70-130	2.87	20
Barium, Total					96.0	70-130	1.04	20
Beryllium, Total					104	70-130	1.90	20
Cadmium, Total					103	70-130	2.87	20
Chromium, Total					106	70-130	2.79	20
Copper, Total					104	70-130	2.84	20
Iron, Total					119	70-130	8.77	20
Manganese, Total					93.2	70-130	2.44	20
Nickel, Total					104	70-130	2.84	20
Silver, Total					104	70-130	2.84	20
Sodium, Total					800	70-130	156	20
Zinc, Total					110	70-130	2.69	20

## Wet Chemistry - Quality Control

<b>Blank (7020647-BLK1)</b>		<b>Prepared &amp; Analyzed: 23-Feb-07</b>						
Color	2.5	U	2.5	2.5	cu			

## Wet Chemistry - Quality Control

<b>LCS (7020647-BS1)</b>		<b>Prepared &amp; Analyzed: 23-Feb-07</b>						
Color					100	80-120		

## Wet Chemistry - Quality Control

<b>LCS Dup (7020647-BSD1)</b>		<b>Prepared &amp; Analyzed: 23-Feb-07</b>						
Color					100	80-120	0.00	20

## Wet Chemistry - Quality Control

<b>Duplicate (7020647-DUP1)</b>		<b>Source: Q001359-01</b>			<b>Prepared &amp; Analyzed: 23-Feb-07</b>			
Color	50.0	2.5	2.5	cu			0.00	20

## Wet Chemistry - Quality Control

<b>Blank (7020657-BLK1)</b>		<b>Prepared &amp; Analyzed: 23-Feb-07</b>						
Nitrogen, Ammonia (as N)	0.015	U	0.015	0.020	mg/L			

## Wet Chemistry - Quality Control

<b>LCS (7020657-BS1)</b>		<b>Prepared &amp; Analyzed: 23-Feb-07</b>						
Nitrogen, Ammonia (as N)					109	90-110		

## Wet Chemistry - Quality Control

<b>LCS Dup (7020657-BSD1)</b>		<b>Prepared &amp; Analyzed: 23-Feb-07</b>						
Nitrogen, Ammonia (as N)					108	90-110	0.922	20

## Wet Chemistry - Quality Control

<b>LCS (7020672-BS1)</b>		<b>Prepared &amp; Analyzed: 23-Feb-07</b>						
pH					100	90-110		

## Wet Chemistry - Quality Control

<b>LCS Dup (7020672-BSD1)</b>		<b>Prepared &amp; Analyzed: 23-Feb-07</b>						
pH					100	90-110	0.163	20

## Wet Chemistry - Quality Control

<b>Duplicate (7020672-DUP1)</b>		<b>Source: Q001366-01</b>			<b>Prepared &amp; Analyzed: 23-Feb-07</b>			
pH	7.61		0.00	s.u.			0.527	20

Florida Certifications: E86349 & E86616 (Microbiology)

# **QUALITY CONTROL FOR :Q001359**

Analyte	Result	MDL	PQL	Units	%REC	%REC Limits	RPD	RPD Limit
<b>Wet Chemistry - Quality Control</b>								
<b>Blank (7020685-BLK1)</b>					Prepared & Analyzed: 21-Feb-07			
MBAS	0.043	U	0.043	0.075	mg/L			
<b>Wet Chemistry - Quality Control</b>								
<b>LCS (7020685-BS1)</b>					Prepared & Analyzed: 21-Feb-07			
MBAS					91.2	90-110		
<b>Wet Chemistry - Quality Control</b>								
<b>LCS Dup (7020685-BSD1)</b>					Prepared & Analyzed: 21-Feb-07			
MBAS					102	90-110	11.2	20
<b>Wet Chemistry - Quality Control</b>								
<b>Blank (7020687-BLK1)</b>					Prepared: 23-Feb-07 Analyzed: 25-Feb-07			
Cyanide, Total	0.0040	U	0.0040	0.0050	mg/L			
<b>Wet Chemistry - Quality Control</b>								
<b>LCS (7020687-BS1)</b>					Prepared: 23-Feb-07 Analyzed: 25-Feb-07			
Cyanide, Total					107	80-120		
<b>Wet Chemistry - Quality Control</b>								
<b>LCS Dup (7020687-BSD1)</b>					Prepared: 23-Feb-07 Analyzed: 25-Feb-07			
Cyanide, Total					105	80-120	1.89	20
<b>Wet Chemistry - Quality Control</b>								
<b>Matrix Spike (7020687-MS1)</b>			<b>Source: Q001359-01</b>		Prepared: 23-Feb-07 Analyzed: 25-Feb-07			
Cyanide, Total					97.0	80-120		
<b>Wet Chemistry - Quality Control</b>								
<b>Matrix Spike Dup (7020687-MSD1)</b>			<b>Source: Q001359-01</b>		Prepared: 23-Feb-07 Analyzed: 25-Feb-07			
Cyanide, Total					NR	80-120	NR	20
<b>Wet Chemistry - Quality Control</b>								
<b>Blank (7020699-BLK1)</b>					Prepared & Analyzed: 23-Feb-07			
Chloride	0.20	U	0.20	0.40	mg/L			
Nitrogen, Nitrate (as N)	0.062	U	0.062	0.50	mg/L			
Sulfate	0.14	U	0.14	1.0	mg/L			
<b>Wet Chemistry - Quality Control</b>								
<b>LCS (7020699-BS1)</b>					Prepared & Analyzed: 23-Feb-07			
Chloride					100	90-110		
Nitrogen, Nitrate (as N)					105	80-110		
Sulfate					100	90-110		
<b>Wet Chemistry - Quality Control</b>								
<b>LCS Dup (7020699-BSD1)</b>					Prepared & Analyzed: 23-Feb-07			
Chloride					101	90-110	0.995	20
Nitrogen, Nitrate (as N)					105	80-110	0.00	20
Sulfate					100	90-110	0.00	20
<b>Wet Chemistry - Quality Control</b>								
<b>Blank (7020715-BLK1)</b>					Prepared: 23-Feb-07 Analyzed: 26-Feb-07			
Phosphorus, Total	0.057	I	0.047	0.10	mg/L			

Florida Certifications: E86349 & E86616 (Microbiology)

# QUALITY CONTROL FOR :Q001359

Analyte	Result	MDL	PQL	Units	%REC	%REC Limits	RPD	RPD Limit
<b>Wet Chemistry - Quality Control</b>								
LCS (7020715-BS1)					Prepared: 23-Feb-07 Analyzed: 26-Feb-07			
Phosphorus, Total					89.8	80-120		
<b>Wet Chemistry - Quality Control</b>								
LCS Dup (7020715-BSD1)					Prepared: 23-Feb-07 Analyzed: 26-Feb-07			
Phosphorus, Total					102	80-120	12.7	20
<b>Wet Chemistry - Quality Control</b>								
Matrix Spike (7020715-MS1)					Source: Q001355-02		Prepared: 23-Feb-07 Analyzed: 26-Feb-07	
Phosphorus, Total					77.2	80-120		
<b>Wet Chemistry - Quality Control</b>								
Matrix Spike Dup (7020715-MSD1)					Source: Q001355-02		Prepared: 23-Feb-07 Analyzed: 26-Feb-07	
Phosphorus, Total					81.7	80-120	5.66	20
<b>Wet Chemistry - Quality Control</b>								
Blank (7020737-BLK1)					Prepared & Analyzed: 26-Feb-07			
Solids, Total Dissolved	8.9	U	8.9	10	mg/L			
<b>Wet Chemistry - Quality Control</b>								
LCS (7020737-BS1)					Prepared & Analyzed: 26-Feb-07			
Solids, Total Dissolved					100	80-120		
<b>Wet Chemistry - Quality Control</b>								
LCS Dup (7020737-BSD1)					Prepared & Analyzed: 26-Feb-07			
Solids, Total Dissolved					104	80-120	3.92	30
<b>Wet Chemistry - Quality Control</b>								
Duplicate (7020737-DUP1)					Source: Q001376-05		Prepared & Analyzed: 26-Feb-07	
Solids, Total Dissolved	2040		8.9	10	mg/L		1.98	20
<b>Wet Chemistry - Quality Control</b>								
Blank (7020745-BLK1)					Prepared & Analyzed: 26-Feb-07			
COD	8.4	U	8.4	10	mg/L			
<b>Wet Chemistry - Quality Control</b>								
LCS (7020745-BS1)					Prepared & Analyzed: 26-Feb-07			
COD					99.7	90-110		
<b>Wet Chemistry - Quality Control</b>								
LCS Dup (7020745-BSD1)					Prepared & Analyzed: 27-Feb-07			
COD					104	90-110	4.22	20
<b>Wet Chemistry - Quality Control</b>								
Matrix Spike (7020745-MS1)					Source: Q001359-01		Prepared & Analyzed: 26-Feb-07	
COD					58.0	90-110		
<b>Wet Chemistry - Quality Control</b>								
Matrix Spike Dup (7020745-MSD1)					Source: Q001359-01		Prepared & Analyzed: 26-Feb-07	
COD					64.0	90-110	9.84	20

Florida Certifications: E86349 & E86616 (Microbiology)

# QUALITY CONTROL FOR :Q001359

Analyte	Result	MDL	PQL	Units	%REC	%REC Limits	RPD	RPD Limit
---------	--------	-----	-----	-------	------	-------------	-----	-----------

## Wet Chemistry - Quality Control

Blank (7020746-BLK1)

Prepared & Analyzed: 27-Feb-07

Fluoride	0.054	U	0.054	0.20	mg/L
----------	-------	---	-------	------	------

## Wet Chemistry - Quality Control

LCS (7020746-BS1)

Prepared & Analyzed: 27-Feb-07

Fluoride	96.6	90-110
----------	------	--------

## Wet Chemistry - Quality Control

LCS Dup (7020746-BSD1)

Prepared & Analyzed: 27-Feb-07

Fluoride	96.6	90-110	0.00	20
----------	------	--------	------	----

## Wet Chemistry - Quality Control

Matrix Spike (7020746-MS1)

Source: Q001279-01

Prepared & Analyzed: 27-Feb-07

Fluoride	98.4	90-110
----------	------	--------

## Wet Chemistry - Quality Control

Matrix Spike Dup (7020746-MSD1)

Source: Q001279-01

Prepared & Analyzed: 27-Feb-07

Fluoride	98.4	90-110	0.00	20
----------	------	--------	------	----

## Wet Chemistry - Quality Control

LCS (7020764-BS1)

Prepared & Analyzed: 27-Feb-07

Conductivity	102	90-110
--------------	-----	--------

## Wet Chemistry - Quality Control

LCS Dup (7020764-BSD1)

Prepared & Analyzed: 27-Feb-07

Conductivity	102	90-110	0.00	20
--------------	-----	--------	------	----

## Wet Chemistry - Quality Control

Duplicate (7020764-DUP1)

Source: Q001359-01

Prepared & Analyzed: 27-Feb-07

Conductivity	860	0.00	0.00	umhos/cm	0.349	20
--------------	-----	------	------	----------	-------	----

## Wet Chemistry - Quality Control

Blank (7020797-BLK1)

Prepared & Analyzed: 23-Feb-07

BOD	1.0	U	1.0	2.0	mg/L
-----	-----	---	-----	-----	------

## Wet Chemistry - Quality Control

LCS (7020797-BS1)

Prepared & Analyzed: 23-Feb-07

BOD	102	85-115
-----	-----	--------

## Wet Chemistry - Quality Control

LCS Dup (7020797-BSD1)

Prepared & Analyzed: 23-Feb-07

BOD	97.0	85-115	4.58	20
-----	------	--------	------	----

## Wet Chemistry - Quality Control

Blank (7020810-BLK1)

Prepared & Analyzed: 23-Feb-07

Nitrogen, Nitrite (as N)	0.021	U	0.021	0.50	mg/L
--------------------------	-------	---	-------	------	------

## Wet Chemistry - Quality Control

LCS (7020810-BS1)

Prepared & Analyzed: 23-Feb-07

Nitrogen, Nitrite (as N)	90.0	90-110
--------------------------	------	--------

Florida Certifications: E86349 & E86616 (Microbiology)

# QUALITY CONTROL FOR :Q001359

Analyte	Result	MDL	PQL	Units	%REC	%REC Limits	RPD	RPD Limit
---------	--------	-----	-----	-------	------	-------------	-----	-----------

## Wet Chemistry - Quality Control

LCS Dup (7020810-BSD1)

Prepared & Analyzed: 23-Feb-07

Nitrogen, Nitrite (as N)					90.0	90-110	0.00	20
--------------------------	--	--	--	--	------	--------	------	----

## Wet Chemistry - Quality Control

Blank (7030006-BLK1)

Prepared & Analyzed: 28-Feb-07

Nitrogen, Kjeldahl, Total	0.091	U	0.091	0.25	mg/L			
---------------------------	-------	---	-------	------	------	--	--	--

## Wet Chemistry - Quality Control

LCS (7030006-BS1)

Prepared & Analyzed: 28-Feb-07

Nitrogen, Kjeldahl, Total					110	90-110		
---------------------------	--	--	--	--	-----	--------	--	--

## Wet Chemistry - Quality Control

LCS Dup (7030006-BSD1)

Prepared & Analyzed: 28-Feb-07

Nitrogen, Kjeldahl, Total					96.8	90-110	12.8	20
---------------------------	--	--	--	--	------	--------	------	----

## Wet Chemistry - Quality Control

Matrix Spike (7030006-MS1)

Source: Q001357-01

Prepared & Analyzed: 28-Feb-07

Nitrogen, Kjeldahl, Total					53.0	90-110		
---------------------------	--	--	--	--	------	--------	--	--

## Wet Chemistry - Quality Control

Matrix Spike Dup (7030006-MSD1)

Source: Q001357-01

Prepared & Analyzed: 28-Feb-07

Nitrogen, Kjeldahl, Total					128	90-110	82.9	20
---------------------------	--	--	--	--	-----	--------	------	----

## NOTES AND DEFINITIONS

V	Indicates the analyte was detected in both the sample and the associated method blank. The value in the method blank is not subtracted from the associated samples.
U	Indicates the compound was analyzed for but not detected.
J	Estimated value. See accompanying case narrative for a complete description.
I	The reported value is between the laboratory method detection limit and the reporting limit.
#	Quality control recovered outside acceptance criteria.
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
DF	Dilution Factor
%REC	Percent Recovery
RPD	Relative Percent Difference

2001359

CHAIN OF CUSTODY RECORD

**KSA** KSA Environmental Laboratory, Inc.  
 10200 USA Today Way - Miramar, Florida 33025  
 Phone: (954) 431-4550 Fax: (954) 431-1959  
 Client Name: Miami Dade Water & Sewer Dept Phone: 305 588 8508  
 Client Address: 8850 SW 232 ST Site Location: South District WWT  
 Work Order #: 1032 Page 1 of 1  
 NELAC / FDOT #: E86349

SAMPLE ID	Project Contact: <u>Oliver Powell</u>	Project Number/Name: <u>Physical Test Sampling</u>	Sampled By (Print): <u>Al Payer</u>	Sampler's Signature: <u>[Signature]</u>	Analysis Requested		Matrix Code	Preservation Code
					Collected	Lab No.		
1	Combined Effluent	2007 0406 0115	10.17.01.18	10.17.01.18	✓	✓	A - Air	1 - Ice
2					✓	✓	GW - Groundwater	2 - HC
3					✓	✓	S - Soil / Sediment	3 - H2SO4
4					✓	✓	NW - Wastewater	4 - HNO3
5					✓	✓	DW - Drinking Water	5 - NaOH
6					✓	✓	SW - Surface Water	6 - ZnAcetate
7					✓	✓	SL - Sludge	0 - Other
8					✓	✓	0 - Other	
9					✓	✓		
10					✓	✓		
11					✓	✓		

Special Instructions & Comments:

Prepared by	Reviewed by	Date/Time	Prepared by	Reviewed by	Date/Time
<u>Oliver Powell</u>	<u>[Signature]</u>	<u>10/17/01</u>	<u>OTD</u>	<u>[Signature]</u>	<u>10/17/01</u>
<u>[Signature]</u>	<u>[Signature]</u>	<u>10/17/01</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>10/17/01</u>