

# PBS & TRANSMITTAL

39884 SW  
JRM  
6/4/04

TO: Mr. John Morris  
Southwest District Office  
Florida Department of Environmental Protection  
3804 Coconut Palm Drive  
Tampa, FL 33619-8318

DATE: December 18, 2003

JOB NO.: 120498.91 9300

Phone: 407.647.7275 ext. 339

From: Greg Mudd, P.G.

RE: Lena Road Landfill  
Manatee County

Address/Office: 482 Keller Road  
Orlando, FL 32810 6101

WE ARE SENDING YOU ☐ Attached ☐ Under separate cover via \_\_\_\_\_  
the following items:

- ☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples  
☐ Copy of Letter ☐ Change Order ☐ Specifications ☐

COPIES	DATE	NO.	DESCRIPTION
1	12/16/03		Semi-Annual Water Quality Monitoring Report Second Half 2003

D.E.P.

DEC 19 2003

Southwest District Tampa

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REMARKS:

DATA REQUESTED BY  
MANATEE CO. LRS  
NOT PROVIDED ON  
REPORT FORM  
ELEVATED MDL  
REPORTED FOR  
SELENIUM  
ELEVATED TURBIDITY  
AT UPSTREAM LOCATION

AUG 2003  
SAMPLING  
EVENT

SIGNED

DISTRIBUTION

**Semi-Annual Water Quality Monitoring Report  
Second Half 2003 Sampling Event  
Lena Road Landfill  
GMS ID No. 4041M02025  
Permit No.: 39884-001-SO**

**December 18, 2003**

Prepared For:



Utility Operations Department  
4410 66<sup>th</sup> Street West  
Bradenton, FL 34210

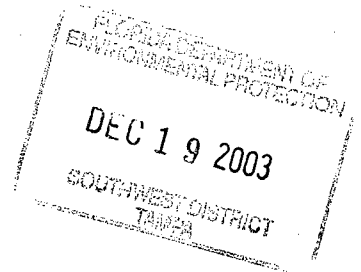
Prepared By:



482 S. Keller Road  
Orlando, FL 32810-6101

**PBS&J Project Number: 120498.91 9300**

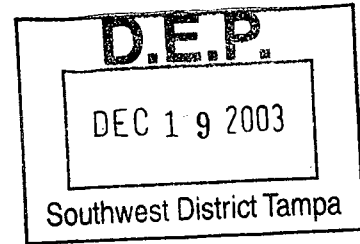
**P. Greg Mudd  
Florida P.G. #1521**





An employee-owned company

December 16, 2003



Mr. Gus DiFonzo  
Solid Waste Division  
Manatee County Utility Operations Department  
4410 66<sup>th</sup> Street West  
Bradenton, Florida 34210

**Re: Semi-Annual Water Quality Monitoring Report  
Second Half 2003 Sampling Event  
Lena Road Landfill  
GMS ID No. 4041M02025  
FDEP Permit No. 39884-001-SO**

Dear Mr. DiFonzo:

PBS&J is pleased to present this Semi-Annual Water Quality Monitoring Report for the second half 2003 sampling event at the Lena Road Landfill (LRL) in Manatee County. This document is designed to meet the requirements of Specific Condition Number 39 of the LRL's permit, and was compiled in general accordance with the guidelines promulgated in Chapter 62-701.510(9)(a) of the Florida Administrative Code (FAC).

### BACKGROUND

The LRL facility is located at 3333 Lena Road in Bradenton, Florida. The LRL facility operates under Permit Number 39884-001-SO, which is on file with the Florida Department of Environmental Protection (FDEP). The LRL is constructed with a perimeter slurry wall in three stages that are designated Stages I, II and III. Landfill leachate is collected by a leachate collection system.

Specific Condition numbers 31, 32, and 35 of the facility's permit stipulates that the water quality program involve monitoring of the leachate, surface water, and the groundwater in the surficial (or shallow) and artesian (or deep) aquifers. The monitoring network consists of the following components:

- The leachate samples are collected from the lift stations.
- Groundwater samples are collected from 26 monitoring wells. Nineteen of the wells are used to monitor the quality of the groundwater of the surficial aquifer, and the other 7

wells are used to monitor the deep aquifer. Wells MW-1, GC-6 and SMR-1 are the designated background wells for the surficial aquifer. Well CW-4 is designated a compliance well and the rest of the shallow wells are designated detection/compliance wells. Well SMR-2 is the designated background well for the deep aquifer and the rest of the deep wells are designated detection/compliance wells.

- The surface water samples are collected from two points along the Cypress Strand. One is located upstream of the LRL and is designated SW-2, and the other, designated SW-1, is located downstream of the LRL.

A summary of the components that comprise the water quality network is presented in Table 1. The layout of the LRL, including the locations of the network components, is illustrated in Figure 1.

Leachate, groundwater and surface water samples were collected from the LRL network for the second half 2003 sampling event during the period between August 19 and 25, 2003. The samples were collected by representatives of P.E. LaMoreaux and Associates, Inc. (PELA). The samples were analyzed for the inorganic parameters by Manatee County Utility Operations' Central Wastewater Laboratory. The samples were analyzed for the other parameters at PELA's Lakeland, Florida laboratory. The LRL's permit requires analysis for the parameters in the State guidelines for Solid Waste Management Facilities, Rule 62-701.510 (8)-62-701.510 (9) of the FAC. The groundwater, and surface water samples are analyzed for all of the parameters listed in Appendix I of 40 Code of Federal Regulations (CFR) Part 258, and the leachate samples are analyzed for the parameters listed in Appendix II of the code.

A Florida Department of Environmental Protection (FDEP) Ground Water Monitoring Report form for the second half 2003 sampling event at the LRL is provided in Attachment A.

### **SAMPLE COLLECTION METHODOLOGY**

The samples were collected in general accordance with the FDEP's Standard Operating Procedure for Field Activities (SOP 001/01). Prior to sample collection, the monitoring wells were purged with a peristaltic pump using the "low-flow" method. A minimum equivalent of three well volumes was purged from each well prior to sample collection. Temperature, pH, conductivity, dissolved oxygen (DO), and turbidity measurements were monitored and recorded throughout the purging process to ensure that representative water samples were collected. Copies of the field data sheets and the field equipment calibration logs from this sampling event are provided in Attachment B.

Depth-to-groundwater measurements were made from the top-of-casing (TOC) at each monitoring well prior to initiating the purging process. The water level measurements were

subtracted from the TOC elevations to determine the elevation of the water table at each well. The TOC and water level elevations are referenced in feet above the National Geodetic Vertical Datum (NGVD). The groundwater elevation data is presented in Table 2.

## **ANALYTICAL RESULTS**

### **Leachate Analytical Results**

Both inorganic and organic parameters were detected in the leachate during the second half 2003 sampling event at the LRL. The inorganic constituents included arsenic, barium, bicarbonate alkalinity, chloride, cobalt, copper, iron, lead, nickel, selenium, sodium, phenols, total dissolved solids (TDS) and zinc. The organic parameters included 1,1-dichloroethane, 1,4-dichlorobenzene, benzene, ethylbenzene, toluene, xylene, dibromochloropropane and chlorobenzene. All of these constituents except cobalt and dibromochloropropane were detected in both leachate samples. Cobalt and dibromochloropropane were detected in one of the leachate samples. A summary of the leachate analytical results is presented Table 3. The complete leachate analytical report is provided in Attachment C-1.

The concentration of the parameters that was detected in the leachate was compared to the regulatory levels listed in 40 CFR Part 261.24, as promulgated by the Florida solid waste regulations. A standard has not been established for every parameter. None of the parameter concentrations detected in the leachate exceeded their respective regulatory level.

### **Groundwater Analytical Results**

A description of the parameters that were detected at concentrations in excess of the regulatory criteria in each aquifer beneath the LRL during this sampling event is presented below. A summary of the results is presented in Table 4. The complete groundwater analytical report is provided in Attachment C-2.

#### **Surficial Aquifer**

There were no organic parameters detected in the wells screened in the surficial aquifer. All of the inorganic parameters except thallium were detected in at least one well location. All of the parameters detected in the network were compared to their respective Maximum Contaminant Level (MCL) or Secondary Drinking Water Standard (SDWS) in accordance with the Florida statutes. The MCLs and SDWSs for Drinking Water Standards, Monitoring, and Reporting are promulgated in Chapter 62-550 of the Florida Administrative Code (FAC). Not every parameter has an MCL or SDWS.

Four parameters, pH, iron, arsenic and TDS, were detected in the surficial aquifer at concentrations in excess of the regulatory criteria. The pH was lower than the prescribed SDWS range of 6.5 to 8.5 in the samples collected at all of the shallow wells, including the background wells, except GC-1A and GC-4. Iron was detected at concentrations in excess of the SDWS at every shallow well, including both background wells. Arsenic was detected at concentrations in excess of its MCL at one well (GC-2), and was detected at elevated levels at several other wells including one of the background wells (GC-6). TDS was detected at elevated concentrations at all of the shallow wells in the network and exceeded the SDWS in the samples collected at CW-4 and MW-3.

#### Deep Aquifer

The only parameters that were detected in the deep aquifer were inorganics, including arsenic, barium, chromium, cobalt, iron, nickel, sodium, ammonia-N, chloride, nitrate and TDS. The only parameters that were detected in excess of the regulatory criteria were pH, TDS and iron. The pH value was higher than the prescribed SDWS range in the samples collected at SA-3, SA-4 and SA-8. The TDS concentration was higher than the SDWS in the samples collected at SA-6 and SA-8. The concentration of iron was higher than the SDWS in the sample collected at SA-3.

#### **Surface Water Analytical Results**

There were no organic constituents detected in the surface water, but numerous inorganic constituents were detected. All of the inorganic parameters except antimony, cadmium, selenium, silver, thallium and unionized ammonia were detected in at least one of the surface samples. The complete groundwater analytical report is provided in Attachment C-3. A summary of the surface water analytical results for each sampling event is presented in Table 5.

The concentrations of the inorganic parameters were compared to their respective Surface Water Cleanup Target Levels (SWCTLs) as a relative measure of the water quality. The SWCTLs are promulgated in Chapter 62-777, FAC. The only parameters that were detected in the surface water at concentrations in excess of its SWCTL were iron and mercury. Both parameters were detected at concentrations in excess of the standards in the sample collected at the upstream sampling point SW-2.

### **GROUNDWATER FLOW PATTERN**

The water level elevation data from the shallow monitoring wells was plotted and contoured to generate the water table elevation contour map presented as Figure 2. The data from the deep wells was used to generate the potentiometric surface contour map for the deep aquifer that is presented in Figure 3.

Mr. Gus DiFonzo  
December 16, 2003  
Page 5

The configuration of the water table indicates that the groundwater within the surficial aquifer (outside the boundary of the landfill) was flowing in a north-northwesterly direction during this sampling event. The average horizontal gradient across the site measured 0.001 feet per foot (ft/ft). The configuration of the potentiometric surface of the deep aquifer indicates that the groundwater was flowing to the north-northwest at an average horizontal gradient of 0.006 ft/ft.

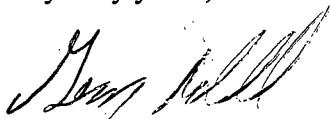
### SUMMARY

The parameters that were detected at concentrations in excess of the regulatory standards in the LRL's monitoring network during the second half 2003 were limited to inorganic constituents, and was limited primarily to pH and iron. Most of the parameters that were detected in the monitoring network were also detected at the background wells, suggesting that their presence reflects the natural chemistry of the groundwater in the area. The most significant detection during the monitoring period was arsenic. Most of the arsenic detections were limited to the surficial aquifer on the west and northwest side of the landfill, lateral to the direction of groundwater flow. The highest arsenic concentration in the groundwater was 0.069 milligrams per liter (mg/l). Arsenic was detected in the leachate at concentrations between 0.007 mg/l and 0.017 mg/l. Therefore, the highest arsenic concentrations in the groundwater exceeded those in the leachate.

The groundwater flow characteristics in both the shallow and deep aquifers were consistent with those observed in the previous sampling events, with the flow directions to the northwest at relatively shallow gradients.

Please call me at (407) 647-7275, ext. 339 if you have any questions or need any additional information.

Very truly yours,



Greg Mudd, P.G.  
Senior Geologist

C: File, 120498.91 9300

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**Table 5 - Surface Water Analytical Summary  
Second Half 2003**

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		08/19/03	08/19/03
	Standard(1)	Units		
<b>Field Measurements</b>				
Temperature		deg. C	32.03	30.3
pH		STD	7.2	7.94
Conductivity		umhos/cm	348	565
Dissolved Oxygen (DO)		mg/l	3.62	7.89
Turbidity		NTU	3.0	997
<b>Inorganics</b>				
Antimony	0.006	mg/l	<0.002	<0.002
Arsenic	0.05	mg/l	<0.007	0.0009
Barium	2	mg/l	0.011	0.042
Beryllium	0.004	mg/l	<0.0002	0.0004
Biochemical Oxygen Demand (BOD)		mg/l	<2.0	5.8
Cadmium	0.005	mg/l	<0.0005	<0.0005
Calcium		mg/l	51.1	114
Chemical Oxygen Demand (COD)		mg/l	18.8	17.3
Chlorophyll A		mg/m3	0.93	1.63
Chromium	0.1	mg/l	0.001	0.031
Cobalt	0.42	mg/l	<0.001	<0.001
Copper	1.0	mg/l	<0.005	0.008
Fecal coliform		cfu/100ml	300	900
Iron	0.3	mg/l	0.23	3.29
Lead	0.015	mg/l	<0.005	0.012
Magnesium		mg/l	8.49	11.3
Mercury	0.012	ug/l	<0.100	0.123
Nickel	0.1	mg/l	0.002	0.01
Nitrate	10	mg/l	0.025	0.581
Selenium	0.05	mg/l	<0.01	<0.01
Silver	0.1	mg/l	<0.002	<0.002
Thallium	0.002	mg/l	<0.0004	<0.0004
Total Dissolved Solids (TDS)	500	mg/l	246	423
Total phosphorous		mg/l	0.149	1.26
Total Suspended Solids (TSS)		mg/l	2	494
Unionized ammonia		mg/l	<0.009	<0.009
Vanadium	0.049	mg/l	0.004	0.035
Zinc	5	mg/l	<0.01	0.036
<b>Organics</b>				
Acetone	700	ug/l	<2.5	<2.5
Acrylonitrile	1	ug/l	<1.5	<1.5
Benzene	1	ug/l	<0.04	<0.04
Bromochloromethane	91	ug/l	<0.5	<0.5
Bromodichloromethane	0.6	ug/l	<0.08	<0.08



Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		08/19/03	08/19/03
	Standard(1)	Units		
Carbon disulfide	700		<4.1	<4.1
Carbon tetrachloride	3	ug/l	<0.21	<0.21
Chlorobenzene	100	ug/l	<0.04	<0.04
Chloroethane	2.7	ug/l	<0.1	<0.1
Dibromochloromethane	0.4	ug/l	<0.05	<0.05
1,2-Dichlorobenzene	600	ug/l	<0.03	<0.03
1,4-Dichlorobenzene	75	ug/l	<0.03	<0.03
Dichloromethane		ug/l	<0.03	<0.03
1,2-Dibromo-3-chloropropane	0.2	ug/l	<0.01	<0.01
Ethylene dibromide	600	ug/l	<0.01	<0.01
o-Dichlorobenzene	600	ug/l	<1.0	<1.0
1,1-Dichloroethane	700	ug/l	<0.03	<0.03
1,2-Dichloroethane	3	ug/l	<0.02	<0.02
1,1-Dichloroethene	7	ug/l	<0.12	<0.12
cis-1,2-Dichloroethene	70	ug/l	<0.1	<0.1
trans-1,2-Dichloroethene	100	ug/l	<0.06	<0.06
1,2-Dichloropropane		ug/l	<0.04	<0.04
cis-1,3-Dichloropropene		ug/l	<0.05	<0.05
trans-1,3-Dichloropropene		ug/l	<0.04	<0.04
Ethylbenzene	30	ug/l	<0.06	<0.06
2-Hexanone		ug/l	<2.5	<2.5
Methyl bromide	10	ug/l	<0.11	<0.11
Chloromethane	5	ug/l	<0.13	<0.13
2-Butanone	4200	ug/l	<5	<5
Methyl iodide		ug/l	<0.5	<0.5
4-Methyl-2-pentanone	350	ug/l	<5.0	<5.0
Styrene	100	ug/l	<1.0	<1.0
1,1,1,2-Tetrachloroethane	1	ug/l	<0.1	<0.1
1,1,2,2-Tetrachloroethane	0.2	ug/l	<0.04	<0.04
t-1,4-Dichloro-2-butene		ug/l	<10	<10
Tetrachloroethene	3	ug/l	<0.14	<0.14
Toluene	40	ug/l	<0.11	21.5
1,1,1-Trichloroethane	200	ug/l	<0.04	<0.04
1,1,2-Trichloroethane	5	ug/l	<0.1	<0.1
Tribromomethane		ug/l	<0.12	<0.12
Trichloroethene	3	ug/l	<0.19	<0.19
Trichloromethane		ug/l	<0.03	<0.03
Trichlorofluoromethane	2100	ug/l	<0.08	<0.08
1,2,3-Trichloropropane	42	ug/l	<0.3	<0.3
Vinyl acetate	250	ug/l	<10	<10
Vinyl chloride	1	ug/l	<0.17	<0.17
Total xylenes	20	ug/l	<0.11	<0.11

Notes: (1) Surface Water Cleanup Target Levels, as promulgated in Chapter 62-770, FAC. Analyte concentrations shown with shading represent an exceedance of the regulatory level.

Abbreviations: mg/l = milligrams per liter; ug/l = micrograms per liter; NTU = nephelometric turbidity units..

Attachment C-3

LAB  
REPORT  
(COUNTY LAB)

## REPORT OF ANALYSIS

MANATEE COUNTY UTILITY OPERATIONS  
CENTRAL WASTEWATER LABORATORY  
5101 65TH STREET WEST  
BRADENTON, FL 34210

Phone: (941) 792-8811 ext. 5285

Fax: (941) 795-3477

FDOH LAB ID: E54560

USEPA LAB CODE: FL00031

Laboratory Contact: Jeff Goodwin

PREPARED FOR: **Mr. Gus Difonzo**  
MCUOD Solid Waste Division  
4410 66th Street West  
Bradenton, FL 34210

SAMPLE RECEIPT DATE: **August 19, 2003**

REPORT DATE: **October 17, 2003**

PROJECT NAME: **Lena Road Landfill**  
**Semiannual Surface Water Monitoring**

### Data Release Authorization:

The Methods of analysis in this report are in accordance with MCUOD Central Wastewater Laboratory's Quality Assurance Manual and meet all NELAC standards except where noted. Results pertain only to the items tested and to the samples specified. This report may not be reproduced, except in full, without the written approval of this laboratory.

  
Jeffrey A. Goodwin, Laboratory Supervisor



**CENTRAL WASTEWATER LABORATORY**

**5101 65TH STREET WEST**

**BRADENTON, FL 34210**

**Phone: (941) 792-8811 ext. 5285**

**Fax: (941) 795-3477**

**FDOH LAB ID: E54560**

**USEPA LAB CODE: FL00031**

**Laboratory Contact: Jeff Goodwin**

**PREPARED FOR: Mr. Gus Difonzo**

**MCUOD Solid Waste Division**

**4410 66th Street West**

**Bradenton, FL 34210**

**TOTAL COST FOR LEANA ROAD SURFACE WATER: \$491.32**

Lab ID	Client ID	Sample Location	Collection Date/Time	Parameter	Method	Results	Date /Time Analyzed	MDL	Analyst	Cost per sample
64169	SW - 1	Lena Road	08/19/03 12:45	Antimony	EPA 204.2	0.002 U mg/L	09/04/03 13:27	0.002 mg/L	WC	\$6.15
64169	SW - 1	Lena Road	08/19/03 12:45	Arsenic	EPA 200.7	0.007 U mg/L	09/24/03 11:00	0.007 mg/L	WC	\$6.15
64169	SW - 1	Lena Road	08/19/03 12:45	Barium	EPA 200.7	0.011 mg/L	09/24/03 11:00	0.0002 mg/L	WC	\$3.70
64169	SW - 1	Lena Road	08/19/03 12:45	Beryllium	EPA 200.7	0.0002 U mg/L	09/24/03 11:00	0.0002 mg/L	WC	\$6.15
64169	SW - 1	Lena Road	08/19/03 12:45	Calcium	EPA 200.7	51.1 mg/L	09/24/03 11:00	0.010 mg/L	WC	\$3.70
64169	SW - 1	Lena Road	08/19/03 12:45	Cadmium	EPA 200.7	0.0005 U mg/L	09/24/03 11:00	0.0005 mg/L	WC	\$6.15
64169	SW - 1	Lena Road	08/19/03 12:45	Chromium	EPA 200.7	0.001 mg/L	09/24/03 11:00	0.0005 mg/L	WC	\$3.70
64169	SW - 1	Lena Road	08/19/03 12:45	Cobalt	EPA 200.7	0.001 U mg/L	09/24/03 11:00	0.001 mg/L	WC	\$3.70
64169	SW - 1	Lena Road	08/19/03 12:45	Copper	EPA 200.7	0.005 U mg/L	09/24/03 11:00	0.005 mg/L	WC	\$3.70
64169	SW - 1	Lena Road	08/19/03 12:45	Iron	EPA 200.7	0.230 mg/L	09/24/03 11:00	0.010 mg/L	WC	\$3.70
64169	SW - 1	Lena Road	08/19/03 12:45	Lead	EPA 200.7	0.005 U mg/L	09/24/03 11:00	0.005 mg/L	WC	\$3.70
64169	SW - 1	Lena Road	08/19/03 12:45	Magnesium	EPA 200.7	8.49 mg/L	09/24/03 11:00	0.005 mg/L	WC	\$3.70
64169	SW - 1	Lena Road	08/19/03 12:45	Nickel	EPA 200.7	0.002 mg/L	09/24/03 11:00	0.001 mg/L	WC	\$3.70
64169	SW - 1	Lena Road	08/19/03 12:45	Selenium	EPA 200.7	0.010 U mg/L	09/24/03 11:00	0.010 mg/L	WC	\$6.15
64169	SW - 1	Lena Road	08/19/03 12:45	Nitrate	EPA 300.0	0.025 mg/L	08/19/03 19:10	0.006 mg/L	EMM	\$4.90
64169	SW - 1	Lena Road	08/19/03 12:45	Silver	EPA 200.7	0.002 U mg/L	09/24/03 11:00	0.002 mg/L	WC	\$3.70
64169	SW - 1	Lena Road	08/19/03 12:45	Thallium	EPA 279.2	0.0004 U mg/L	09/10/03 14:08	0.0004 mg/L	WC	\$6.15
64169	SW - 1	Lena Road	08/19/03 12:45	Vanadium	EPA 200.7	0.004 mg/L	09/24/03 11:00	0.0005 mg/L	WC	\$3.70
64169	SW - 1	Lena Road	08/19/03 12:45	Zinc	EPA 200.7	0.010 U mg/L	09/24/03 11:00	0.010 mg/L	WC	\$3.70
64169	SW - 1	Lena Road	08/19/03 12:45	Mercury	EPA 245.1	0.100 U ug/L	09/05/03 12:03	0.100 ug/L	WC	\$6.15
64169	SW - 1	Lena Road	08/19/03 12:45	Unionized Ammonia	DEP SOP 10/3/83	0.009 U mg/L	09/29/03 13:52	CALCULATION	JAG	\$4.90
64169	SW - 1	Lena Road	08/19/03 12:45	Ammonia as N	EPA 350.1	0.014 mg/L	08/22/03 14:09	0.009 mg/L	EMM	\$4.39
64169	SW - 1	Lena Road	08/19/03 12:45	cBOD	SM 5210B	2.00 U mg/L	08/25/03 10:00	2.00 mg/L	EMM	\$6.15
64169	SW - 1	Lena Road	08/19/03 12:45	COD	EPA 410.4	18.8 mg/L	09/26/03 10:00	3.00 mg/L	LK	\$8.60
64169	SW - 1	Lena Road	08/19/03 12:45	Fecal Coliform	SM 9222D	>200 CFU/100 ml	08/19/03 15:00	1.00 CFU/100 ml	EMM	\$4.90
64169	SW - 1	Lena Road	10/14/03 7:50	Fecal Coliform	SM 9222D	300 CFU/100 ml	10/17/03 10:25	1.00 CFU/100 ml	IR	\$4.90
64169	SW - 1	Lena Road	08/19/03 12:45	TDS	SM 2540C	246 mg/L	08/20/03 16:45	4.50 mg/L	LK	\$4.90
64169	SW - 1	Lena Road	08/19/03 12:45	TOC	EPA 415.1	14.8 mg/L	08/29/03 16:00	0.050 mg/L	EMM	\$8.60
64169	SW - 1	Lena Road	08/19/03 12:45	Total Hardness	SM 2340 B	163 mg/L	09/26/03 7:49	CALCULATION	EC	\$7.35
64169	SW - 1	Lena Road	08/19/03 12:45	Total Nitrogen	Calculation	0.977 mg/L	09/22/03 14:55	CALCULATION	EC	\$8.95
64169	SW - 1	Lena Road	08/19/03 12:45	Total Phosphorus	EPA 365.1	0.149 mg/L	08/27/03 14:27	0.002 mg/L	LK	\$6.15
64169	SW - 1	Lena Road	08/19/03 12:45	TSS	SM 2540D	2.00 mg/L	08/21/03 9:15	0.500 mg/L	LK	\$4.90
Total Cost for Lena Road SW-1										<b>\$167.04</b>

Lab ID	Client ID	Sample Location	Collection Date/Time	Parameter	Method	Results	Date /Time Analyzed	MDL	Analyst	Cost per sample
64169	SW - 2	Lena Road	08/19/03 11:24	Antimony	EPA 204.2	0.002 U mg/L	09/04/03 13:35	0.002 mg/L	WC	\$6.15
64169	SW - 2	Lena Road	08/19/03 11:24	Arsenic	EPA 200.7	0.0009 mg/L	09/24/03 11:11	0.007 mg/L	WC	\$6.15
64169	SW - 2	Lena Road	08/19/03 11:24	Barium	EPA 200.7	0.042 mg/L	09/24/03 11:11	0.0002 mg/L	WC	\$3.70
64169	SW - 2	Lena Road	08/19/03 11:24	Beryllium	EPA 200.7	0.0004 mg/L	09/24/03 11:11	0.0002 mg/L	WC	\$6.15
64169	SW - 2	Lena Road	08/19/03 11:24	Calcium	EPA 200.7	114 mg/L	09/24/03 11:11	0.010 mg/L	WC	\$3.70
64169	SW - 2	Lena Road	08/19/03 11:24	Cadmium	EPA 200.7	0.0005 U mg/L	09/24/03 11:11	0.0005 mg/L	WC	\$6.15
64169	SW - 2	Lena Road	08/19/03 11:24	Chromium	EPA 200.7	0.031 mg/L	09/24/03 11:11	0.0005 mg/L	WC	\$3.70
64169	SW - 2	Lena Road	08/19/03 11:24	Cobalt	EPA 200.7	0.001 U mg/L	09/24/03 11:11	0.001 mg/L	WC	\$3.70
64169	SW - 2	Lena Road	08/19/03 11:24	Copper	EPA 200.7	0.008 mg/L	09/24/03 11:11	0.005 mg/L	WC	\$3.70
64169	SW - 2	Lena Road	08/19/03 11:24	Iron	EPA 200.7	3.29 mg/L	09/24/03 11:11	0.010 mg/L	WC	\$3.70
64169	SW - 2	Lena Road	08/19/03 11:24	Lead	EPA 200.7	0.012 mg/L	09/24/03 11:11	0.005 mg/L	WC	\$3.70
64169	SW - 2	Lena Road	08/19/03 11:24	Magnesium	EPA 200.7	11.3 mg/L	09/24/03 11:11	0.005 mg/L	WC	\$3.70
64169	SW - 2	Lena Road	08/19/03 11:24	Nickel	EPA 200.7	0.010 mg/L	09/24/03 11:11	0.001 mg/L	WC	\$3.70
64169	SW - 2	Lena Road	08/19/03 11:24	Nitrate	EPA 300.0	0.581 mg/L	08/19/03 19:40	0.006 mg/L	EMM	\$4.90
64169	SW - 2	Lena Road	08/19/03 11:24	Selenium	EPA 200.7	0.010 U mg/L	09/24/03 11:11	0.010 mg/L	WC	\$6.15
64169	SW - 2	Lena Road	08/19/03 11:24	Silver	EPA 200.7	0.002 U mg/L	09/24/03 11:11	0.002 mg/L	WC	\$3.70
64169	SW - 2	Lena Road	08/19/03 11:24	Thallium	EPA 279.2	0.0004 U mg/L	09/10/03 14:16	0.0004 mg/L	WC	\$6.15
64169	SW - 2	Lena Road	08/19/03 11:24	Vanadium	EPA 200.7	0.035 mg/L	09/24/03 11:11	0.0005 mg/L	WC	\$3.70
64169	SW - 2	Lena Road	08/19/03 11:24	Zinc	EPA 200.7	0.036 mg/L	09/24/03 11:11	0.010 mg/L	WC	\$3.70
64169	SW - 2	Lena Road	08/19/03 11:24	Mercury	EPA 245.1	0.123 ug/L	09/05/03 12:05	0.100 ug/L	WC	\$6.15
64169	SW - 2	Lena Road	08/19/03 11:24	Unionized Ammonia	DEP SOP 10/3/83	0.009 U mg/L	09/29/03 13:52	CALCULATION	JAG	\$4.90
64169	SW - 2	Lena Road	08/19/03 11:24	Ammonia as N	EPA 350.1	0.102 mg/L	08/22/03 13:58	0.009 mg/L	EMM	\$4.39
64169	SW - 2	Lena Road	08/19/03 11:24	cBOD	SM 5210B	5.80 mg/L	08/25/03 10:00	2.00 mg/L	EMM	\$6.15
64169	SW - 2	Lena Road	08/19/03 11:24	COD	EPA 410.4	17.3 mg/L	09/26/03 10:00	3.00 mg/L	LK	\$8.60
64169	SW - 2	Lena Road	08/19/03 11:24	Fecal Coliform	SM 9222D	>200 CFU/100 ml	08/19/03 15:00	1 CFU/100 ml	EMM	\$4.90
64169	SW - 2	Lena Road	10/14/03 8:15	Fecal Coliform	SM 9222D	900 CFU/100 ml	10/17/03 10:25	1 CFU/100 ml	IR	\$4.90
64169	SW - 2	Lena Road	08/19/03 11:24	TDS	SM 2540C	423 mg/L	08/20/03 16:45	4.50 mg/L	LK	\$4.90
64169	SW - 2	Lena Road	08/19/03 11:24	TOC	EPA 415.1	35.6 mg/L	08/29/03 18:55	0.050 mg/L	EMM	\$8.60
64169	SW - 2	Lena Road	08/19/03 11:24	Total Hardness	SM 2340 B	331 mg/L	09/26/03 7:49	CALCULATION	EC	\$7.35
64169	SW - 2	Lena Road	08/19/03 11:24	Total Nitrogen	Calculation	4.62 mg/L	09/22/03 14:58	CALCULATION	EC	\$8.95
64169	SW - 2	Lena Road	08/19/03 11:24	Total Phosphorus	EPA 365.1	1.26 mg/L	08/27/03 14:27	0.002 mg/L	LK	\$6.15
64169	SW - 2	Lena Road	08/19/03 11:24	TSS	SM 2540D	494 mg/L	08/21/03 9:15	0.500 mg/L	LK	\$4.90
Total Cost for Lena Road SW-2										\$167.04



# REPORT OF ANALYSIS

P.E. LaMoreaux and Associates, Inc.

Geochemistry Laboratory

4320 Old Highway 37, Lakeland, Florida 33813 PHONE 863/646-8526 FAX 863/646-1042

## CASE NARRATIVE

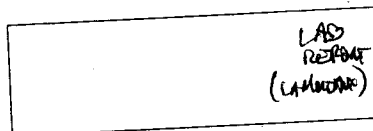
SENT TO: MANATEE COUNTY-SWRTP  
JEFF GOODWIN  
5101 65TH STREET WEST  
BRADENTON FLORIDA 34210  
941 792-8788

REPORT ID : 0308064170  
PROJECT NO. :  
PELA CONTACT :  
RECEIVED DATE : 8/19/03  
REPORTED DATE : 10/2/03



### LAB ID #

KD11945-02Y  
KD11946-02X-5  
KD11946-03S  
KD11946-02X-5  
KD11947-02Y  
KD11948-03S  
KD11948-02X-5  
KD11949-02Y  
KD11950-02X-5  
KD11950-03S



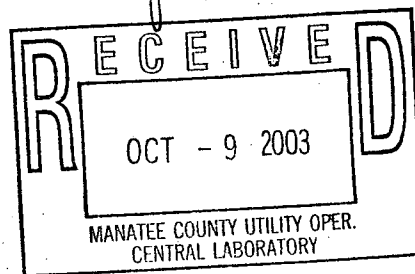
## REPORT SUMMARY

Sampling, handling and holding time criteria were met for all samples.

Samples were collected by PELA according to DEP-SOP-001/01 revised January 1, 2002.

## QUALIFIER KEY

U = Indicates that the compound was analyzed for but not detected



*Joseph M. Hester*  
SENIOR CHEMIST

*Anna O. Mostafa*  
LABORATORY DIRECTOR

## CERTIFICATE OF RESULTS

Sample integrity certified prior to analysis. Uncertainties in test results are available upon request. Test results meet all requirements of the NELAC Standards, except as noted in the Case Narrative. This report may not be reproduced in part, results relate only to items tested. This report includes a case narrative, report of analysis, attachments, and chain of custody.

Narrative Page 1 of 1



# REPORT OF ANALYSIS

P.E. LaMoreaux and Associates, Inc.

Geochemistry Laboratory

4320 Old Highway 37, Lakeland, Florida 33813

PHONE 863/646-8526

FAX 863/646-1042

## CLIENT INFORMATION

Client : MANATEE COUNTY-SWRTP  
5101 65TH STREET WEST  
BRADENTON FLORIDA 34210  
Attention : JEFF GOODWIN

Report ID: 0308064170

## BILLING INFORMATION

Bill To: MANATEE COUNTY-SWRTP

P.O. BOX 1000  
BRADENTON, FLORIDA 34206

Purchase Order No. :

Identification : SW1 SURFACE WATER LENA RD LF  
Site : SURFACE WATER, LENA RD LF  
Type : WATER

## FIELD PARAMETERS

SPECIFIC CONDUCTANCE :	348	MICROMHOS
pH :	7.20	STANDARD UNITS
WATER TEMPERATURE :	32.03	DEGREES C
DISSOLVED OXYGEN :	3.62	mg/L
INITIAL WATER LEVEL :		
WELL ELEVATION :		
FIELD TURBIDITY :	3.00	NTU
FIELD COLOR :		
FACILITY GMS # :		

## COMMENTS

FIELD PARA METERS  
OBTAINED BY PELA  
COLOR: LIGHT TAN  
SHEEN: NONE  
UNIQUE ID#

01A APP1 VOL





# REPORT OF ANALYSIS

P.E. LaMoreaux and Associates, Inc.

Geochemistry Laboratory

4320 Old Highway 37, Lakeland, Florida 33813

PHONE 863/646-8526

FAX 863/646-1042

Client Name : MANATEE COUNTY-SWRTP  
Identification : SW1 SURFACE WATER LENA RD LF  
Site : SURFACE WATER, LENA RD LF  
Type : WATER

Report ID: 0308064170

COLLECTION DATE : 8/19/03

COLLECTION TIME : 12:45

COLLECTED BY : PELA

DATE RECEIVED IN LAB : 8/19/03

PARAMETER	RESULTS	DETECTION LIMITS	UNITS	ANALYST	DATE FINISHED
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## ORGANICS

### APPENDIX I VOLATILES (EPA 8260)

KD11945-02Y

1,2,3-TRICHLOROPROPANE	U	0.3	ug/l	JMS	8/31/03
IODOMETHANE	U	0.5	ug/l	JMS	8/31/03
CIS 1,2-DICHLOROETHENE	U	0.10	ug/l	JMS	8/31/03
T-1,4-DICHLORO-2-BUTENE	U	10.0	ug/l	JMS	8/31/03
STYRENE	U	1.0	ug/l	JMS	8/31/03
1,1,1,2-TETRACHLOROETHANE	U	0.1	ug/l	JMS	8/31/03
2-HEXANONE	U	5.0	ug/l	JMS	8/31/03
DIBROMOMETHANE	U	0.3	ug/l	JMS	8/31/03
2-BUTANONE	U	5.0	ug/l	JMS	8/31/03
ACETONE	U	2.5	ug/l	JMS	8/31/03
VINYL ACETATE	U	10.0	ug/l	JMS	8/31/03
CARBON DISULFIDE	U	4.1	ug/l	JMS	8/31/03
4-METHYL-2-PENTANONE	U	5.0	ug/l	JMS	8/31/03
BROMOCHLOROMETHANE	U	0.5	ug/l	JMS	8/31/03
CHLOROMETHANE	U	0.13	ug/l	JMS	8/31/03
DICHLOROMETHANE	U	0.03	ug/l	JMS	8/31/03
1,1-DICHLOROETHENE	U	0.12	ug/l	JMS	8/31/03
TRICHLOROFLUOROMETHANE	U	0.08	ug/l	JMS	8/31/03
CHLOROETHANE	U	0.10	ug/l	JMS	8/31/03
VINYL CHLORIDE	U	0.17	ug/l	JMS	8/31/03
ACRYLONITRILE	U	1.50	ug/l	JMS	8/31/03
1,1-DICHLOROETHANE	U	0.03	ug/l	JMS	8/31/03
BROMOMETHANE	U	0.11	ug/l	JMS	8/31/03
TOLUENE	U	0.11	ug/l	JMS	8/31/03
1,4-DICHLOROBENZENE	U	0.03	ug/l	JMS	8/31/03
1,1,2,2-TETRACHLOROETHANE	U	0.04	ug/l	JMS	8/31/03
O-XYLENE	U	0.11	ug/l	JMS	8/31/03
TRIBROMOMETHANE	U	0.12	ug/l	JMS	8/31/03
M,P-XYLENES	U	0.11	ug/l	JMS	8/31/03
ETHYLBENZENE	U	0.06	ug/l	JMS	8/31/03
CHLOROBENZENE	U	0.04	ug/l	JMS	8/31/03
TETRACHLOROETHENE	U	0.14	ug/l	JMS	8/31/03
DIBROMOCHLOROMETHANE	U	0.05	ug/l	JMS	8/31/03
TRANS-1,2-DICHLOROETHENE	U	0.06	ug/l	JMS	8/31/03
TRANS-1,3-DICHLOROPROPENE	U	0.04	ug/l	JMS	8/31/03

Page 2 of 18



# REPORT OF ANALYSIS

P.E. LaMoreaux and Associates, Inc.

Geochemistry Laboratory

4320 Old Highway 37, Lakeland, Florida 33813

PHONE 863/646-8526

FAX 863/646-1042

Client Name : MANATEE COUNTY-SWRTP  
Identification : SW1 SURFACE WATER LENA RD LF  
Site : SURFACE WATER, LENA RD LF  
Type : WATER

Report ID: 0308064170

COLLECTION DATE : 8/19/03

COLLECTION TIME : 12:45

COLLECTED BY : PELA

DATE RECEIVED IN LAB : 8/19/03

PARAMETER	RESULTS	DETECTION LIMITS	UNITS	ANALYST	DATE FINISHED
1,2-DICHLOROBENZENE	U	0.03	ug/l	JMS	8/31/03
CIS-1,3-DICHLOROPROPENE	U	0.05	ug/l	JMS	8/31/03
BROMODICHLOROMETHANE	U	0.08	ug/l	JMS	8/31/03
TRICHLOROETHENE	U	0.19	ug/l	JMS	8/31/03
1,2-DICHLOROPROPANE	U	0.04	ug/l	JMS	8/31/03
CARBON TETRACHLORIDE	U	0.21	ug/l	JMS	8/31/03
BENZENE	U	0.04	ug/l	JMS	8/31/03
1,2-DICHLOROETHANE	U	0.02	ug/l	JMS	8/31/03
1,1,1-TRICHLOROETHANE	U	0.04	ug/l	JMS	8/31/03
TRICHLOROMETHANE	U	0.03	ug/l	JMS	8/31/03
1,1,2-TRICHLOROETHANE	U	0.10	ug/l	JMS	8/31/03

DETECTION LIMITS REPORTED ARE METHOD DETECTION LIMITS WHICH MAY VARY WITH MATRIX AND CONCENTRATION. ND- NONE DETECTED.



# REPORT OF ANALYSIS

P.E. LaMoreaux and Associates, Inc.

Geochemistry Laboratory

4320 Old Highway 37, Lakeland, Florida 33813

PHONE 863/646-8526

FAX 863/646-1042

CLIENT NAME : MANATEE COUNTY-SWRTP  
IDENTIFICATION : SW1 SURFACE WATER LENA RD  
SITE : SURFACE WATER, LENA RD LF  
TYPE : WATER

Report ID: 0308064170  
COLLECTION DATE : 8/19/03  
COLLECTION TIME : 12:45  
COLLECTED BY : PELA  
DATE RECEIVED IN LAB : 8/19/03

PARAMETER	METHOD	DETECTION LIMITS	RESULTS	UNITS	ANALYST	TIME/DATE STARTED
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## INORGANICS

KD11946-03S

CHLOROPHYLL A	10200 H	0.1	0.93	mg/m3	RLG	16:30 8/20/03
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DETECTION LIMITS REPORTED ARE METHOD DETECTION LIMITS WHICH MAY VARY WITH MATRIX AND CONCENTRATION.



# REPORT OF ANALYSIS

P.E. LaMoreaux and Associates, Inc.

Geochemistry Laboratory

4320 Old Highway 37, Lakeland, Florida 33813

PHONE 863/646-8526

FAX 863/646-1042

CLIENT NAME : MANATEE COUNTY-SWRTP  
IDENTIFICATION : SW1 SURFACE WATER LENA RD  
SITE : SURFACE WATER, LENA RD LF  
TYPE : WATER

Report ID: 0308064170

COLLECTION DATE : 8/19/03

COLLECTION TIME : 12:45

COLLECTED BY : PELA

DATE RECEIVED IN LAB : 8/19/03

PARAMETER	METHOD	DETECTION LIMITS	RESULTS	UNITS	ANALYST	TIME/DATE STARTED
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## ORGANICS

### EDB & DBCP/ENVIRON WATER

KD11946-02X-5

ETHYLENE DIBROMIDE

DIBROMCHLORPROPANE

EPA 504

0.01

U

ug/L

JPT

9:35 8/25/03

EPA 504

0.01

U

ug/L

JPT

9:35 8/25/03



# REPORT OF ANALYSIS

P.E. LaMoreaux and Associates, Inc.

Geochemistry Laboratory

4320 Old Highway 37, Lakeland, Florida 33813    PHONE 863/646-8526    FAX 863/646-1042

## CLIENT INFORMATION

Client : MANATEE COUNTY-SWRTP  
5101 65TH STREET WEST  
BRADENTON FLORIDA 34210  
Attention : JEFF GOODWIN

Report ID: 0308064170

## BILLING INFORMATION

Bill To: MANATEE COUNTY-SWRTP

P.O. BOX 1000  
BRADENTON, FLORIDA 34206

Purchase Order No. :

Identification : SW2 SURFACE WATER LENA RD LF  
Site : SURFACE WATER, LENA RD LF  
Type : WATER

## FIELD PARAMETERS

SPECIFIC CONDUCTANCE :	565	MICROMHOS
pH :	7.94	STANDARD UNITS
WATER TEMPERATURE :	30.30	DEGREES C
DISSOLVED OXYGEN :	7.89	mg/L
INITIAL WATER LEVEL :		
WELL ELEVATION :		
FIELD TURBIDITY :	997	NTU
FIELD COLOR :		
FACILITY GMS # :		

## COMMENTS

FIELD PARAMETERS  
OBTAINED BY PELA  
COLOR: BLK GREY/DIRT COLOR  
SHEEN: NONE  
UNIQUE ID#

01A APP1 VOL



# REPORT OF ANALYSIS

P.E. LaMoreaux and Associates, Inc.

Geochemistry Laboratory

4320 Old Highway 37, Lakeland, Florida 33813 PHONE 863/646-8526 FAX 863/646-1042

Client Name : MANATEE COUNTY-SWRTP  
Identification : SW2 SURFACE WATER LENA RD LF  
Site : SURFACE WATER, LENA RD LF  
Type : WATER

Report ID: 0308064170

COLLECTION DATE : 8/19/03

COLLECTION TIME : 11:24

COLLECTED BY : PELA

DATE RECEIVED IN LAB : 8/19/03

PARAMETER	RESULTS	DETECTION LIMITS	UNITS	ANALYST	DATE FINISHED
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## ORGANICS

### APPENDIX I VOLATILES (EPA 8260)

KD11947-02Y

1,2,3-TRICHLOROPROPANE	U	0.3	ug/l	JMS	8/31/03
IODOMETHANE	U	0.5	ug/l	JMS	8/31/03
CIS 1,2-DICHLOROETHENE	U	0.10	ug/l	JMS	8/31/03
T-1,4-DICHLORO-2-BUTENE	U	10.0	ug/l	JMS	8/31/03
STYRENE	U	1.0	ug/l	JMS	8/31/03
1,1,1,2-TETRACHLOROETHANE	U	0.1	ug/l	JMS	8/31/03
2-HEXANONE	U	5.0	ug/l	JMS	8/31/03
DIBROMOMETHANE	U	0.3	ug/l	JMS	8/31/03
2-BUTANONE	U	5.0	ug/l	JMS	8/31/03
ACETONE	U	2.5	ug/l	JMS	8/31/03
VINYL ACETATE	U	10.0	ug/l	JMS	8/31/03
CARBON DISULFIDE	U	4.1	ug/l	JMS	8/31/03
4-METHYL-2-PENTANONE	U	5.0	ug/l	JMS	8/31/03
BROMOCHLOROMETHANE	U	0.5	ug/l	JMS	8/31/03
CHLOROMETHANE	U	0.13	ug/l	JMS	8/31/03
DICHLOROMETHANE	U	0.03	ug/l	JMS	8/31/03
1,1-DICHLOROETHENE	U	0.12	ug/l	JMS	8/31/03
TRICHLOROFLUOROMETHANE	U	0.08	ug/l	JMS	8/31/03
CHLOROETHANE	U	0.10	ug/l	JMS	8/31/03
VINYL CHLORIDE	U	0.17	ug/l	JMS	8/31/03
ACRYLONITRILE	U	1.50	ug/l	JMS	8/31/03
1,1-DICHLOROETHANE	U	0.03	ug/l	JMS	8/31/03
BROMOMETHANE	U	0.11	ug/l	JMS	8/31/03
TOLUENE	U	0.11	ug/l	JMS	8/31/03
1,4-DICHLOROBENZENE	U	0.03	ug/l	JMS	8/31/03
1,1,2,2-TETRACHLOROETHANE	U	0.04	ug/l	JMS	8/31/03
O-XYLENE	U	0.11	ug/l	JMS	8/31/03
TRIBROMOMETHANE	U	0.12	ug/l	JMS	8/31/03
M,P-XYLENES	U	0.11	ug/l	JMS	8/31/03
ETHYLBENZENE	U	0.06	ug/l	JMS	8/31/03
CHLOROBENZENE	U	0.04	ug/l	JMS	8/31/03
TETRACHLOROETHENE	U	0.14	ug/l	JMS	8/31/03
DIBROMOCHLOROMETHANE	U	0.05	ug/l	JMS	8/31/03
TRANS-1,2-DICHLOROETHENE	U	0.06	ug/l	JMS	8/31/03
TRANS-1,3-DICHLOROPROPENE	U	0.04	ug/l	JMS	8/31/03

Page 8 of 18



# REPORT OF ANALYSIS

P.E. LaMoreaux and Associates, Inc.

Geochemistry Laboratory

4320 Old Highway 37, Lakeland, Florida 33813

PHONE 863/646-8526

FAX 863/646-1042

Client Name : MANATEE COUNTY-SWRTP  
Identification : SW2 SURFACE WATER LENA RD LF  
Site : SURFACE WATER, LENA RD LF  
Type : WATER

Report ID: 0308064170

COLLECTION DATE : 8/19/03

COLLECTION TIME : 11:24

COLLECTED BY : PELA

DATE RECEIVED IN LAB : 8/19/03

PARAMETER	RESULTS	DETECTION LIMITS	UNITS	ANALYST	DATE FINISHED
1,2-DICHLOROBENZENE	U	0.03	ug/l	JMS	8/31/03
CIS-1,3-DICHLOROPROPENE	U	0.05	ug/l	JMS	8/31/03
BROMODICHLOROMETHANE	U	0.08	ug/l	JMS	8/31/03
TRICHLOROETHENE	U	0.19	ug/l	JMS	8/31/03
1,2-DICHLOROPROPANE	U	0.04	ug/l	JMS	8/31/03
CARBON TETRACHLORIDE	U	0.21	ug/l	JMS	8/31/03
BENZENE	U	0.04	ug/l	JMS	8/31/03
1,2-DICHLOROETHANE	U	0.02	ug/l	JMS	8/31/03
1,1,1-TRICHLOROETHANE	U	0.04	ug/l	JMS	8/31/03
TRICHLOROMETHANE	U	0.03	ug/l	JMS	8/31/03
1,1,2-TRICHLOROETHANE	U	0.10	ug/l	JMS	8/31/03

DETECTION LIMITS REPORTED ARE METHOD DETECTION LIMITS WHICH MAY VARY WITH MATRIX AND CONCENTRATION. ND- NONE DETECTED.



# REPORT OF ANALYSIS

P.E. LaMoreaux and Associates, Inc.

Geochemistry Laboratory

4320 Old Highway 37, Lakeland, Florida 33813

PHONE 863/646-8526

FAX 863/646-1042

CLIENT NAME : MANATEE COUNTY-SWRTP  
IDENTIFICATION : SW2 SURFACE WATER LENA RD  
SITE : SURFACE WATER, LENA RD LF  
TYPE : WATER

Report ID: 0308064170

COLLECTION DATE : 8/19/03

COLLECTION TIME : 11:24

COLLECTED BY : PELA

DATE RECEIVED IN LAB : 8/19/03

PARAMETER	METHOD	DETECTION LIMITS	RESULTS	UNITS	ANALYST	TIME/DATE STARTED
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## INORGANICS

KD11948-03S

CHLOROPHYLL A

10200 H

0.1

1.63

mg/m3

RLG

16:30 8/20/03

DETECTION LIMITS REPORTED ARE METHOD DETECTION LIMITS WHICH MAY VARY WITH MATRIX AND CONCENTRATION.





# REPORT OF ANALYSIS

P.E. LaMoreaux and Associates, Inc.

Geochemistry Laboratory

4320 Old Highway 37, Lakeland, Florida 33813

PHONE 863/646-8526

FAX 863/646-1042

CLIENT NAME : MANATEE COUNTY-SW RTP  
IDENTIFICATION : SW2 SURFACE WATER LENA RD  
SITE : SURFACE WATER, LENA RD LF  
TYPE : WATER

Report ID: 0308064170

COLLECTION DATE : 8/19/03

COLLECTION TIME : 11:24

COLLECTED BY : PELA

DATE RECEIVED IN LAB : 8/19/03

PARAMETER	METHOD	DETECTION LIMITS	RESULTS	UNITS	ANALYST	TIME/DATE STARTED
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## ORGANICS

### EDB & DBCP/ENVIRON WATER

KD11948-02X-5

ETHYLENE DIBROMIDE	EPA 504	0.01	U	ug/L	JPT	10:07 8/25/03
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DIBROMCHLORPROPANE	EPA 504	0.01	U	ug/L	JPT	10:07 8/25/03
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# REPORT OF ANALYSIS

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## PART III ANALYTICAL RESULTS

FACILITY GMS # :

TEST SITE ID # : SURFACE WATER, LENA RD L

WELL NAME : SW1 SURFACE WATER LENA RD LF

CLASSIFICATION OF GROUNDWATER : G II

GROUND WATER ELEVATION (NGVD) :

OR (MSL) :

FEET BMP :

Report ID: 0308064170

SAMPLING DATE/TIME : 8/19/03 12:45:00

REPORT PERIOD (YR/QTR) :

WELL PURGED (Y/N) : Y

WELL TYPE :

COLLECTION DATE : 8/19/03

COLLECTION TIME : 12:45

COLLECTED BY : PELA

DATE RECEIVED IN LAB : 8/19/03



STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED Y/N	ANALYSIS METHOD	ANALYSIS DATE TIME	ANALYSIS RESULTS UNITS	DETECTION LIMITS UNITS
	ORGANICS KD11945- APPENDIX I VOLATILES (	*	N			Completed	

\*SUBMERSIBLE OR PERISTALTIC PUMP

\*\* BAILER

	ORGANICS KD11945-02Y								
34506	1,1,1-trichloroethane	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.04	ug/l
34516	1,1,2,2-tetrachloroethane	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.04	ug/l
34511	1,1,2-trichloroethane	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.10	ug/l
34496	1,1-dichloroethane	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.03	ug/l
34501	1,1-dichloroethene	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.12	ug/l
34536	1,2-dichlorobenzene	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.03	ug/l
34531	1,2-dichloroethane	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.02	ug/l
34541	1,2-dichloropropane	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.04	ug/l
34571	1,4-dichlorobenzene	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.03	ug/l
34215	Acrylonitrile	*	N	EPA 8260	8/31/03 21:18	U	ug/l	1.50	ug/l
34030	Benzene	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.04	ug/l
32101	Bromodichloromethane	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.08	ug/l
34413	Bromomethane	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.11	ug/l
32102	Carbon tetrachloride	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.21	ug/l
34301	Chlorobenzene	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.04	ug/l
34311	Chloroethane	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.10	ug/l
34418	Chloromethane	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.13	ug/l
34704	cis-1,3-dichloropropene	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.05	ug/l
32105	Dibromochloromethane	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.05	ug/l
34423	Dichloromethane	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.03	ug/l
34371	Ethylbenzene	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.06	ug/l
81551	m,p-Xylenes	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.11	ug/l
77135	o-Xylene	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.11	ug/l
34475	Tetrachloroethene	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.14	ug/l
34010	Toluene	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.11	ug/l
34546	trans-1,2-dichloroethene	*	N	EPA 8260	8/31/03 21:18	U	ug/l	0.06	ug/l



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## PART III ANALYTICAL RESULTS

FACILITY GMS # :

TEST SITE ID # : SURFACE WATER, LENA RD L

WELL NAME : SW1 SURFACE WATER LENA RD LF

CLASSIFICATION OF GROUNDWATER : G II

GROUND WATER ELEVATION (NGVD) :

OR (MSL) :

FEET BMP :

Report ID: 0308064170

SAMPLING DATE/TIME : 8/19/03 12:45:00

REPORT PERIOD (YR/QTR) :

WELL PURGED (Y/N) : Y

WELL TYPE :

COLLECTION DATE : 8/19/03

COLLECTION TIME : 12:45

COLLECTED BY : PELA

DATE RECEIVED IN LAB : 8/19/03



STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED Y/N	ANALYSIS METHOD	ANALYSIS DATE	ANALYSIS TIME	ANALYSIS RESULTS	ANALYSIS UNITS	DETECTION LIMITS	DETECTION UNITS
34699	trans-1,3-dichloropropene	*	N	EPA 8260	8/31/03	21:18	U	ug/l	0.04	ug/l
32104	Tribromomethane	*	N	EPA 8260	8/31/03	21:18	U	ug/l	0.12	ug/l
39180	Trichloroethene	*	N	EPA 8260	8/31/03	21:18	U	ug/l	0.19	ug/l
34488	Trichlorofluoromethane	*	N	EPA 8260	8/31/03	21:18	U	ug/l	0.08	ug/l
32106	Trichloromethane	*	N	EPA 8260	8/31/03	21:18	U	ug/l	0.03	ug/l
39175	Vinyl Chloride	*	N	EPA 8260	8/31/03	21:18	U	ug/l	0.17	ug/l
	KD11945-02Y									
62	1,1,1,2-tetrachloroethane	*	N	EPA 8260	8/31/03	21:18	U	ug/l	0.1	ug/l
7443	1,2,3-Trichloropropane	*	N	EPA 8260	8/31/03	21:18	U	ug/l	0.3	ug/l
81595	2-Butanone	*	N	EPA 8260	8/31/03	21:18	U	ug/l	5.0	ug/l
77103	2-Hexanone	*	N	EPA 8260	8/31/03	21:18	U	ug/l	5.0	ug/l
78133	4-Methyl-2-pentanone	*	N	EPA 8260	8/31/03	21:18	U	ug/l	5.0	ug/l
81552	Acetone	*	N	EPA 8260	8/31/03	21:18	U	ug/l	2.5	ug/l
73085	Bromochloromethane	*	N	EPA 8260	8/31/03	21:18	U	ug/l	0.5	ug/l
81309	Carbon Disulfide	*	N	EPA 8260	8/31/03	21:18	U	ug/l	4.1	ug/l
77093	cis 1,2-Dichloroethene	*	N	EPA 8260	8/31/03	21:18	U	ug/l	0.10	ug/l
34536	Dibromomethane	*	N	EPA 8260	8/31/03	21:18	U	ug/l	0.3	ug/l
77424	Iodomethane	*	N	EPA 8260	8/31/03	21:18	U	ug/l	0.5	ug/l
77128	Styrene	*	N	EPA 8260	8/31/03	21:18	U	ug/l	1.0	ug/l
49263	t-1,4-Dichloro-2-butene	*	N	EPA 8260	8/31/03	21:18	U	ug/l	10.0	ug/l
77057	Vinyl Acetate	*	N	EPA 8260	8/31/03	21:18	U	ug/l	10.0	ug/l

\*SUBMERSIBLE OR PERISTALTIC PUMP

\*\* BAILER



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## PART III ANALYTICAL RESULTS

FACILITY GMS # :

TEST SITE ID # : SURFACE WATER, LENA RD L

WELL NAME : SW1 SURFACE WATER LENA RD LF

CLASSIFICATION OF GROUNDWATER : G II

GROUND WATER ELEVATION (NGVD) :

OR (MSL) :

FEET BMP :

Report ID: 0308064170

SAMPLING DATE/TIME : 8/19/03 12:45:00

REPORT PERIOD (YR/QTR) :

WELL PURGED (Y/N) : Y

WELL TYPE :

COLLECTION DATE : 8/19/03

COLLECTION TIME : 12:45

COLLECTED BY : PELA

DATE RECEIVED IN LAB : 8/19/03



STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED Y/N	ANALYSIS METHOD	ANALYSIS DATE TIME	ANALYSIS RESULTS UNITS	DETECTION LIMITS UNITS
32223	INORGANICS KD11946-03S CHLOROPHYLL A	*	N	10200 H	8/20/03 16:30	0.93 mg/m3	0.1 mg/m3

\*SUBMERSIBLE OR PERISTALTIC PUMP

\*\* BAILER

	ORGANICS KD11946- EDB & DBCP/EW	*	N			Completed	
--	---------------------------------------	---	---	--	--	-----------	--

\*SUBMERSIBLE OR PERISTALTIC PUMP

\*\* BAILER

38437	ORGANICS KD11946-02X-5 DIBROMCHLORPROPANE	*	N	EPA 504	8/25/03 9:35	U ug/L	0.01 ug/L
46369	ETHYLENE DIBROMIDE	*	N	EPA 504	8/25/03 9:35	U ug/L	0.01 ug/L

\*SUBMERSIBLE OR PERISTALTIC PUMP

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## PART III ANALYTICAL RESULTS

FACILITY GMS # :

TEST SITE ID # : SURFACE WATER, LENA RD L

WELL NAME : SW2 SURFACE WATER LENA RD LF

CLASSIFICATION OF GROUNDWATER : G II

GROUND WATER ELEVATION (NGVD) :

OR (MSL) :

FEET BMP :

Report ID: 0308064170

SAMPLING DATE/TIME : 8/19/03 11:24:00

REPORT PERIOD (YR/QTR) :

WELL PURGED (Y/N) : Y

WELL TYPE :

COLLECTION DATE : 8/19/03

COLLECTION TIME : 11:24

COLLECTED BY : PELA

DATE RECEIVED IN LAB : 8/19/03



STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED Y/N	ANALYSIS METHOD	ANALYSIS DATE TIME	ANALYSIS RESULTS UNITS	DETECTION LIMITS UNITS
	ORGANICS KD11947- APPENDIX I VOLATILES (	*	N			Completed	

\*SUBMERSIBLE OR PERISTALTIC PUMP

\*\* BAILER

	ORGANICS KD11947-02Y								
306	1,1,1-trichloroethane	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.04	ug/l
34516	1,1,2,2-tetrachloroethane	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.04	ug/l
34511	1,1,2-trichloroethane	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.10	ug/l
34496	1,1-dichloroethane	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.03	ug/l
34501	1,1-dichloroethene	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.12	ug/l
34536	1,2-dichlorobenzene	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.03	ug/l
34531	1,2-dichloroethane	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.02	ug/l
34541	1,2-dichloropropane	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.04	ug/l
34571	1,4-dichlorobenzene	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.03	ug/l
34215	Acrylonitrile	*	N	EPA 8260	8/31/03 22:23	U	ug/l	1.50	ug/l
34030	Benzene	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.04	ug/l
32101	Bromodichloromethane	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.08	ug/l
34413	Bromomethane	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.11	ug/l
32102	Carbon tetrachloride	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.21	ug/l
34301	Chlorobenzene	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.04	ug/l
34311	Chloroethane	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.10	ug/l
34418	Chloromethane	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.13	ug/l
34704	cis-1,3-dichloropropene	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.05	ug/l
32105	Dibromochloromethane	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.05	ug/l
34423	Dichloromethane	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.03	ug/l
34371	Ethylbenzene	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.06	ug/l
81551	m,p-Xylenes	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.11	ug/l
77135	o-Xylene	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.11	ug/l
34475	Tetrachloroethene	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.14	ug/l
34010	Toluene	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.11	ug/l
546	trans-1,2-dichloroethene	*	N	EPA 8260	8/31/03 22:23	U	ug/l	0.06	ug/l

age 2 of 4



# REPORT OF ANALYSIS

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## PART III ANALYTICAL RESULTS

FACILITY GMS # :

TEST SITE ID # : SURFACE WATER, LENA RD L

WELL NAME : SW2 SURFACE WATER LENA RD LF

CLASSIFICATION OF GROUNDWATER : G II

GROUND WATER ELEVATION (NGVD) :

OR (MSL) :

FEET BMP :

Report ID: 0308064170

SAMPLING DATE/TIME : 8/19/03 11:24:00

REPORT PERIOD (YR/QTR) :

WELL PURGED (Y/N) : Y

WELL TYPE :

COLLECTION DATE : 8/19/03

COLLECTION TIME : 11:24

COLLECTED BY : PELA

DATE RECEIVED IN LAB : 8/19/03



STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED Y/N	ANALYSIS METHOD	ANALYSIS DATE	ANALYSIS TIME	ANALYSIS RESULTS	ANALYSIS UNITS	DETECTION LIMITS	DETECTION UNITS
34699	trans-1,3-dichloropropene	*	N	EPA 8260	8/31/03	22:23	U	ug/l	0.04	ug/l
32104	Tribromomethane	*	N	EPA 8260	8/31/03	22:23	U	ug/l	0.12	ug/l
39180	Trichloroethene	*	N	EPA 8260	8/31/03	22:23	U	ug/l	0.19	ug/l
34488	Trichlorofluoromethane	*	N	EPA 8260	8/31/03	22:23	U	ug/l	0.08	ug/l
32106	Trichloromethane	*	N	EPA 8260	8/31/03	22:23	U	ug/l	0.03	ug/l
39175	Vinyl Chloride	*	N	EPA 8260	8/31/03	22:23	U	ug/l	0.17	ug/l
	KD11947-02Y									
562	1,1,1,2-tetrachloroethane	*	N	EPA 8260	8/31/03	22:23	U	ug/l	0.1	ug/l
7443	1,2,3-Trichloropropane	*	N	EPA 8260	8/31/03	22:23	U	ug/l	0.3	ug/l
81595	2-Butanone	*	N	EPA 8260	8/31/03	22:23	U	ug/l	5.0	ug/l
77103	2-Hexanone	*	N	EPA 8260	8/31/03	22:23	U	ug/l	5.0	ug/l
78133	4-Methyl-2-pentanone	*	N	EPA 8260	8/31/03	22:23	U	ug/l	5.0	ug/l
81552	Acetone	*	N	EPA 8260	8/31/03	22:23	U	ug/l	2.5	ug/l
73085	Bromochloromethane	*	N	EPA 8260	8/31/03	22:23	U	ug/l	0.5	ug/l
81309	Carbon Disulfide	*	N	EPA 8260	8/31/03	22:23	U	ug/l	4.1	ug/l
77093	cis 1,2-Dichloroethene	*	N	EPA 8260	8/31/03	22:23	U	ug/l	0.10	ug/l
34536	Dibromomethane	*	N	EPA 8260	8/31/03	22:23	U	ug/l	0.3	ug/l
77424	Iodomethane	*	N	EPA 8260	8/31/03	22:23	U	ug/l	0.5	ug/l
77128	Styrene	*	N	EPA 8260	8/31/03	22:23	U	ug/l	1.0	ug/l
49263	t-1,4-Dichloro-2-butene	*	N	EPA 8260	8/31/03	22:23	U	ug/l	10.0	ug/l
77057	Vinyl Acetate	*	N	EPA 8260	8/31/03	22:23	U	ug/l	10.0	ug/l

\*SUBMERSIBLE OR PERISTALTIC PUMP

\*\* BAILER



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## PART III ANALYTICAL RESULTS

FACILITY GMS # :

TEST SITE ID # : SURFACE WATER, LENA RD L

WELL NAME : SW2 SURFACE WATER LENA RD LF

CLASSIFICATION OF GROUNDWATER : G II

GROUND WATER ELEVATION (NGVD) :

OR (MSL) :

FEET BMP :

Report ID: 0308064170

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WELL PURGED (Y/N) : Y

WELL TYPE :

COLLECTION DATE : 8/19/03

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COLLECTED BY : PELA

DATE RECEIVED IN LAB : 8/19/03



STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED Y/N	ANALYSIS METHOD	ANALYSIS DATE TIME	ANALYSIS RESULTS UNITS	DETECTION LIMITS UNITS
32223	INORGANICS KD11948-03S CHLOROPHYLL A	*	N	10200 H	8/20/03 16:30	1.63 mg/m3	0.1 mg/m3

\*SUBMERSIBLE OR PERISTALTIC PUMP

\*\* BAILER

	ORGANICS KD11948- EDB & DBCP/EW	*	N			Completed	
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\*SUBMERSIBLE OR PERISTALTIC PUMP

\*\* BAILER

38437	ORGANICS KD11948-02X-5 DIBROMCHLORPROPANE	*	N	EPA 504	8/25/03 10:07	U ug/L	0.01 ug/L
46369	ETHYLENE DIBROMIDE	*	N	EPA 504	8/25/03 10:07	U ug/L	0.01 ug/L

\*SUBMERSIBLE OR PERISTALTIC PUMP

\*\* BAILER



### DATA QUALIFIER CODES

A	VALUE REPORTED IS THE MEAN ( AVERAGE) OF TWO OR MORE DETERMINATIONS.
J	Estimated value, may not be accurate. Use of this code requires justification for its use and is used in the following situations:  <ol style="list-style-type: none"><li>1. Exceeding of surrogate recovery limits.</li><li>2. Existence of no quality control criteria for a component.</li><li>3. Failure to meet established precision and accuracy criteria.</li><li>4. Matrix interference.</li><li>5. QUESTIONABLE DATA DUE TO IMPROPER FIELD OR LAB PROTOCOLS.</li></ol> "J" Values are exclusive and are not used in conjunction with other codes.
Q	ANALYZED AFTER HOLDING TIME EXPIRED.
>	GREATER THAN .
U	LESS THAN THE METHOD DETECTION LIMIT.
V	BLANK CONTAMINATION. RESULTS ARE VALID AND CAN BE REPORTED.
X	TIME OF COLLECTION NOT PROVIDED.
#	NO SAMPLE RECEIVED.

JG/ecc



REPORTING ADDRESS:

ATTN:

CLIENT:

ADDRESS:

P.E. LaMoreaux &amp; Associates

4320 Old Highway 37

Lakeland, Florida 33813

(863) 646-8526

## CHAIN OF CUSTODY

INVOICING ADDRESS:

ATTN:

CLIENT:

ADDRESS:

No 64169

PROJECT NAME		PROJECT LOCATION		REQUIRED ANALYSIS						PAGE	OF			
PROJECT NO.		PURCHASE ORDER NO.		Bod, TSS	TDS, No <sub>3</sub> NO <sub>2</sub>	TOC, Cod	NH <sub>3</sub> , P <sub>4</sub> , TN	THD, Cu, Fe, Hg, Zn	fcb	FIELD PARAMETERS				
PROJECT CONTACT		PROJECT TEL. NO.								SC (umhos/cm)	pH	TEMP (°C)	D.O.	
SAMPLER NAME(S)				NUMBER OF CONTAINERS / CONTAINER SIZE & TYPE / PRESERVATIVE										
SAMPLING		SAMPLE IDENTIFICATION		CONTAINER TYPES: (P)LASTIC (G)LASS (O)THER										
DATE	TIME			PRESERVATIVES: (S)ODIUM HYDROXIDE (Su)LFURIC (N)ITRIC (H)YDROCHLORIC (I)CED (O)THER										
8/19/03	12:45	Sw 1		1 P 1	1 P 1	1 P 1	1 P 1	1 P 1	1 P 1	348	7.20	32.03	3.62	3.00
"	1:24	Sw 2		"	"	"	"	"	"	565	7.94	34.30	7.89	4.97
"		Duplicate		"	"	"	"	"	"	—	—	—	—	—
		Sw 1 Color: light tan												
		Sw 1 Sheen: none												
		Sw 2 Color: black/grey discolor												
		Sw 2 Sheen: none												
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:		RELINQUISHED BY:		DATE	TIME	RECEIVED BY:				
		8/19/03	1345	G. Margenich										
FOR PELA LABORATORY USE ONLY				LABORATORY REMARKS										
RECEIVED FOR LAB		DATE	TIME	WORK ORDER #										

**P.E. LAMOREAUX & ASSOCIATES, INC.**  
**GENERAL CONDITIONS**

1. **Authorized To Proceed:** Signing the Chain of Custody Form shall be constructed as authorization by Client and PELA to proceed with work.
2. **Cost Estimates:** Any cost estimated provided by PELA will be on a basis of experience and judgement. PELA has no control over market conditions or bidding procedures and therefore cannot warrant that bids or ultimate costs will not vary from these cost estimates.
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ATTN: Jeff Goodwin  
CLIENT: Manatee Co.  
ADDRESS: \_\_\_\_\_

## CHAIN OF CUSTODY

ATTN: \_\_\_\_\_  
CLIENT: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_

64169

PROJECT NAME 1 <sup>st</sup> Bi-Annual Sampling		PROJECT LOCATION Lena Rd Landfill		REQUIRED ANALYSIS										PAGE		OF											
PROJECT NO.		PURCHASE ORDER NO.		TYPE: (W)ATER (S)OIL (O)THER	Bad, TSS		TDS, NO <sub>3</sub> <del>NO<sub>2</sub></del>		TOC, COD		NH <sub>3</sub> , P <sub>org</sub> , TN		THD, Cu, Fe, Hg, Zn		fcb		FIELD PARAMETERS										
PROJECT CONTACT Jeff		PROJECT TEL. NO.			SC (umhos/cm)		pH		TEMP (°C)		D.O.		NTU														
SAMPLER NAME(S) S. Helms																											
SAMPLING		SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS / CONTAINER SIZE & TYPE / PRESERVATIVE																							
DATE		TIME		CONTAINER TYPES: (P)LASTIC (G)LASS (O)THER PRESERVATIVES: (S)ODIUM HYDROXIDE (Su)LFURIC (N)ITRIC (H)YDROCHLORIC (I)CED (O)THER																							
8/19/03		1245		SW 1		1 P 2		1 P 2		1 P 50		1 P 50		1 P 10		1 P 10		348		7.20		32.03		3.62		3.00	
		1124		SW 2														365		7.94		30.30		7.89		997	
				Duplicate														—		—		—		—		—	
				SW 1 Color: light tan																							
				SW 1 Sheen: none																							
				SW 2 Color: black/grey / dirt color																							
				SW 2 Sheen: none																							
								</																			

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ADDRESS:

## CHAIN OF CUSTODY

ADDRESS:

6417

SECTION 1 of 1

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MANATEE COUNTY UTILITY OPERATIONS INDUSTRIAL COMPLIANCE  
SAMPLING CHAIN-OF-CUSTODY

☐ RESAMPLING

CHAIN-OF-CUSTODY NUMBER: 991288

☐ INSPECTED

FACILITY: Manatee County Landfill SIC. NO. \_\_\_\_\_

FACILITY ADDRESS: 333 Leona Rd

DATE SAMPLED: 10-14-03 TIME: 0815 SAMPLER: Thomas

SAMPLE LOCATION: SW-2

SAMPLE CONTAINER I.D.: 991288 SAMPLE COLLECTION TYPE: Grab

SAMPLE SPLIT WITH FACILITY: NO

FACILITY REPRESENTATIVE & TITLE: N/A

**FIELD DATA:**

PARAMETER: N/A CALIBRATION DATA: \_\_\_\_\_

RESULTS: \_\_\_\_\_

COMPOSITE SCHEDULE: N/A

WAS AUTOMATED SAMPLING EQUIPMENT USED? NO

GRAB SCHEDULE: Collected 300 ml's @ 0815

**PARAMETER LEGEND:**

IDENTIFICATION	PARAMETER	PRESERVATIVE	NUMBER OF CONTAINERS
991288	Fecal	Ø	2

**CUSTODY TRANSFER:**

RELINQUISHED BY	RELINQUISHED TO	COMPANY I.D.	DATE	TIME	N.O.C.
Scott Demer	Anna Reed	Central Lab.	10-14-03	9:40	2

MANATEE COUNTY UTILITY OPERATIONS INDUSTRIAL COMPLIANCE  
SAMPLING CHAIN-OF-CUSTODY

☐ RESAMPLING

CHAIN-OF-CUSTODY NUMBER: 991289

☐ INSPECTED

FACILITY: Manatee County Landfill SIC. NO. \_\_\_\_\_

FACILITY ADDRESS: 333 Levee Rd.

DATE SAMPLED: 10-14-03 TIME: 17:50 SAMPLER: Thomas

SAMPLE LOCATION: SW 1

SAMPLE CONTAINER I.D.: 991289 SAMPLE COLLECTION TYPE: Grab

SAMPLE SPLIT WITH FACILITY: NO

FACILITY REPRESENTATIVE & TITLE: N/A

**FIELD DATA:**

PARAMETER: N/A CALIBRATION DATA: \_\_\_\_\_

RESULTS: \_\_\_\_\_

COMPOSITE SCHEDULE: N/A

WAS AUTOMATED SAMPLING EQUIPMENT USED? NO

GRAB SCHEDULE: Collected 300 mls @ 07:50

**PARAMETER LEGEND:**

IDENTIFICATION	PARAMETER	PRESERVATIVE	NUMBER OF CONTAINERS
<u>991289</u>	<u>Fecal</u>	<u>Ø</u>	<u>2</u>

**CUSTODY TRANSFER:**

RELINQUISHED BY	RELINQUISHED TO	COMPANY I.D.	DATE	TIME	N.O.C.
<u>Scott Turner</u>	<u>Anna Reed</u>	<u>Central Lab.</u>	<u>10-14-03</u>	<u>9:40</u>	<u>2</u>