



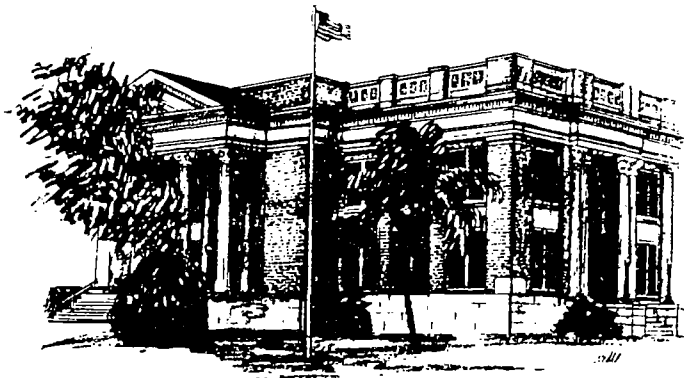
Robert L. Giesler
Chairman
District 5

Avant Brown
Vice Chairman
District 3

K.S. Jones
District 1

Franklin D. Simmons
District 4

Alvin Ward, Jr.
District 2



*Glades County Courthouse
Moore Haven, Florida*

Office Of

Board Of County Commissioners

November 24, 1997



Joe Flint
Clerk of the
Circuit Court
Sandra H. Brown
Deputy Clerk

Michael A. Rider
County Attorney

June M. Fisher
County Manager

P.O. Box 10
Moore Haven, FL 33471
(941) 946-0949

Ms. Mary Jean Yon, Administrator
Solid Waste Section
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RECEIVED

DEC 1 1997

Solid Waste Section

RE: REQUEST FOR VARIANCE

Dear Ms. Yon:

The Glades County Board of County Commissioners met in regular session on Monday, November 24, 1997 and voted to request a variance from meeting the new rules on leachate management. We are requesting this variance under the provisions in Chapter 120.542 declaring that we are achieving the purpose of the underlying statute. Also, that we are declaring a substantial hardship in that meeting the rule at this time poses severe economic and financial hardship and burden upon the County Government and the residents of Glades County.

The Commission is hereby formally requesting a sixty (60) month variance in order to provide our Staff and consultants adequate time to find the way and means to meet the leachate management rule.

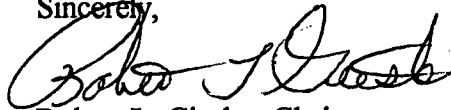
As you must be aware, last year during the Legislative Session an appropriating amendment vehicle was simply not there. Our professional representatives met with several legislators in Tallahassee as well as the Governor's Office and will do so again this year seeking the financial assistance to allow us to perform necessary design and construction

to meet this rule. In that we are the only Class II Landfill in operation in the State of Florida, we believe that the attached data will adequately demonstrate our situation as being one that deserves our requested variance.

Furthermore, when you find for our request and grant our variance we would respectfully request that you and those in your department along with our consultants come to Glades County for a workshop that can present our entire Commission and Staff with a complete overview of this project from the Tallahassee and the Glades County standpoint.

We appreciate your time in meeting with Glades County representatives and for your every consideration of our variance request.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert L. Giesler", written in a cursive style.

Robert L. Giesler, Chairman
Glades County Board of County Commissioners

CC: Mr. :Phil Barbaccia, FDEP, Fort Myers
Mr. M. Dale Milita, Craig A. Smith & Associates

GLADES COUNTY SOLID WASTE DISPOSAL



LANDFILL VARIANCE REQUEST DATA

COMPLIANCE REPORT

NOVEMBER 24, 1997

"UPDATED DATA FROM THE MARCH 13, 1995 REPORT"

Prepared for:
Glades County Board of County Commissioners
Solid Waste Division

By:
CRAIG A. SMITH & ASSOCIATES
1000 W. McNab Road, Suite 200
Pompano Beach, Florida 33069
(954) 782-8222

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- VI. ASSURANCES**

I. LANDFILL STATUS

The current landfill operating permit was renewed under the FDEP guidelines of a hardship variance. This permit-variance is under review by the Florida Department of Environmental Protection (FDEP) for a County requested renewal. Glades County submitted an Operating Permit Renewal Application in December 1993. Since that time Glades County and FDEP have worked together through the permitting process in updating the operational requirements for issuance of the new operating permit for this facility. One issue still remains unresolved, and that is the issue regarding the leachate storage and management variance. The present variance is expiring on December 1, 1997. The Board of County Commissioners, together with the County Solid Waste Division, is requesting an additional variance at this time.

Under the provisions of Chapter 120.542, Glades County is indeed meeting the underlying purpose of the statute. Glades County Solid Waste Division has and is operating a clean and safe sanitary landfill. This County is meeting the goals of this facility by providing on-going service to all residents and visitors of Glades County, and also by the documented facts that ground water testing, surface water testing and leachate content testing results all show the landfill to be within safe and acceptable parameters (see attachment).

While the present lined leachate storage pond (installed in 1991) does not meet the new Rule 62-701.400(6) regarding leachate storage, the County submits that the underlying purpose of the statute is being met, in that there is no evidence of this structure posing any threat of danger to ground or surface water.

Additionally, the rule requiring that this sanitary landfill leachate storage impoundment in use as of January 6, 1993 shall be replaced or modified to conform to the new rule by January 6, 1995 poses a severe economic hardship upon this small rural County. Enforcement of this rule prior to the end of a (new) requested sixty (60) month variance would require the Board of County Commissioners to raise Landfill Tipping Fees to a point that landfill usage would no longer be affordable by the residents and visitors living in Glades County. At present the County ranks number two in the lowest per capita income and ranks severely low in all other economic indicators in the State of Florida.

The County has received notice from City of Moore Haven Officials, the only City in Glades County, that if the already high tipping fee of \$43.00 per ton is again raised that their hauler(s) will be instructed to transport City waste to one of two private-regional landfills at a lower rate. The loss of City waste would be disastrous to the Glades County Solid Waste Program.

Should the City of Moore Haven “pull-out” of the Glades County Solid Waste Program there would not be enough revenue for this landfill to continue its mission until long term solutions are found. If the landfill was forced into an unplanned closure, the requirement for improved leachate management at the remaining unused site would still remain, the requirement for long term care would still remain. All of these items could throw Glades County into a financial crisis that it may not be able to overcome. Glades County is at the Statutory Tax Cap and even if these expenses were required to be transferred from the Landfill Enterprise Fund to the County General Revenue there, simply put, is not the money available. EMS, Fire and other essential services would have to be reconsidered.

During to the past and most recent, permit renewal process the County explored options to exempt the landfill from the new liner requirement. The three options explored included:

- 1) Rule Exemption
- 2) Alternative Procedures
- 3) Variance

The County was denied an exemption to this rule. The second option explored was “alternative procedures”. In order to qualify for “alternate procedures” the County would have to have proven that the existing impoundments meets or exceeds the current requirements through minor alterations to the existing system. Two requirements make it impossible for the County to meet the rule. Double liner integrity with a detection zone could not be accomplished with the existing system without major improvements and enormous capital expense, not available to the County at this time. Compartmentalizing the existing holding pond into two cells would involve the construction of a hydrostatically designed and constructed separator wall including re-piping to allow for independent loading and emptying. Again, this would involve high capital costs that the County cannot acquire at this time.

The third option being explored is the request for a sixty (60) month variance of time to comply with the new rule. This will allow the County time to evaluate the entire cost of operation of the Solid Waste Facility, evaluate proposed revenue and rates, explore potential funding options (including legislative assistance) as well as further deciding the ultimate operation of the Solid Waste Facility.

The County is currently operating a very clean and organized sanitary landfill. Current average tonnage received at this site is approximately 15 tons per day with a current tipping fee of \$43.00 per ton. The County operates the only Class II sanitary landfill in the State of Florida.

II. BACKGROUND DATA AND GENERATION RATES

The County is currently receiving an average of 15 tons per day of waste at their landfill. The current tipping fee is \$43.00 per ton. At this generation rate the County receives an average of 387 tons per month or \$16,641.00 in revenue per month from M.S.W.

The County has installed a flow meter on the leachate waste line. The average leachate generation at this facility is still remains at approximately 3,000 gallons per day or 500 gallons per acre per day which is within industry standards. Therefore, the quantity of leachate to be handled and stored is 3,000 gallons per day.

The County currently is managing to store, evaporate and recirculate all leachate (including rain water) generated at this site with the existing pond without routine scheduled trucking and disposal.

As a backup mode of further protection, the Board of County Commissioners has, issued a standing authorization to the Solid Waste Director to allow for trucking of leachate to FDEP approved disposal facilities when and if needed.

This trucking/disposal has been used only once during an exceptional rainy period last summer. We mention this trucking and disposal procedure that was automatically activated by the Solid Waste Director, without a special, emergency meeting of the Board of Commissioners only to emphasize that this landfill can and does meet the safety requirements and has the full authority of the County Commission to do so.

This trucking and disposal procedure was performed at a cost of \$15,269. Approximately 174,000 gallons of leachate were transported by a licensed and permitted hauler for the County. Ironically enough the only time this procedure had to be instituted was during a holiday weekend, proving again that we do meet our obligations to operate our sanitary landfill in a manner that poses no threat to the safety and welfare of our residents or the ground and surface waters of the State.

III. LANDFILL OPERATIONS OPTIONS

The operation of sanitary landfills is becoming a costly venture due to the ever increasing operational and construction rules and regulations. As technology continues to progress along with environmental concerns for our quality of life in America so will more stringent rules for the operation and construction of sanitary landfills. In order for entities to operate sanitary landfills these entities need to assume the risks and financial responsibilities associated with these facilities.

Current data collected indicates that in order to operate a sanitary landfill in today's market a minimum of 100 tons per day is required for financial feasibility. Some government owned and operated facilities do indeed operate with less tonnage depending on past debt service requirements (land purchases, improvements, etc.), grant subsidies, local financial and other outside support.

Glades County Landfill currently is operating at a much lower tonnage rate than what is considered to be optimal. The County has arrived at a "cross-roads" with respect to solid waste decisions. The rising cost of operations, low tonnage and the moderately high to high tipping fee requires immediate attention. The County is faced with options for operating this facility. Proposed options explored include:

- 1) Continue current operations and upgrade leachate system under a sixty (60) month variance.
- 2) Closure of the landfill and operate a transfer station which will still require construction of an improved leachate management system.
- 3) Closure and complete removal of landfill.
- 4) Privatization of the landfill.

All of options shown above will still require the retrofit to the existing leachate system except for Option No. 3. A summary of each option is as follows:

OPTION 1 - CONTINUE CURRENT OPERATION AND UPGRADE LEACHATE SYSTEM WITH A SIXTY (60) MONTH VARIANCE

This option assumes continued operation of the existing landfill at existing generation rates, which would require the installation of a new leachate management system in accordance with the new rule to bring the landfill into compliance and a valid operation permit. The County could continue future planning through the new variance period of sixty (60) months. The current lined landfill cell area has an estimated life of from 10 to 12 years. This option provides the County time to further investigate and implement potential options for the future of solid waste management in Glades County. This would require increasing the tipping fee to provide for the needed improvements for compliance and also approval by FDEP of the requested sixty (60) month variance

OPTION 2 - CLOSURE OF LANDFILL AND OPERATE TRANSFER STATION

This option assumes total closure of Fill Area No. 1 within the next 1 - 2 years. Estimate of total closure cost is \$538,038 plus the additionally required expense to upgrade the leachate management system. The County would make application to FDEP with 180 days from Notice of Intent to Close and file a closure plan to include a new leachate management system. In order for the County to implement this option the County would have to construct a transfer station and secure a long term disposal site. The facility would need to generate revenue to retire existing debt. The County would be responsible for long term care of the closed landfill and would have to collect revenue to pay for this expense. The County would also be required to pay off existing debt service, debt for the transfer station and the closure costs. Grant and/or appropriation funds could be sought for this program. The liability and risks would still remain with Glades County.

OPTION 3 - CLOSURE AND COMPLETE REMOVAL OF LANDFILL

This option includes total closure of Fill Area No. 1 through mining and complete removal of all waste in Fill Area No. 1 with hauling and disposal at another site. This option may require the installation of a transfer station at the site depending on the financial and hauling arrangements. This option completely removes all liability from the County and totally eliminates a Solid Waste Division within the County. The County would have to immediately secure a long term agreement with a disposal facility to take the waste and haul it to their facility. This option is estimated to cost up to \$3,000,000 depending on disposal cost at the remote site. Implementation of this option could be agreed upon with FDEP over a multi-year program by order and would require a unique partnership between the State Legislature and appropriate FDEP agency personnel to assist the County with funding to implement a program that would decrease the existing number of State Permitted Class II Landfills from one (1) to zero (0).

OPTION 4 - PRIVATIZATION

This option involves securing a private corporation to assume the responsibility, ownership, liability and operation of the existing landfill. This option is contingent upon interest by outside concerns regarding the Glades County Landfill. This option is also dependent upon two major factors. First, interest and negotiations as well as contractual arrangements would have to be secured with a privatizer. Secondly, the present landfill site does have deed restrictions placed upon it by the former owners at the time of the title transfer. These deed restrictions restricting waste from outside of the County would first need to be legally disposed of, prior to this option becoming possible.

IV. RECOMMENDED OPTION

It is our recommendation to proceed with Option No. 1, with a sixty (60) month variance, to allow time to plan and implement future options. Options 1, 2 and 4 all would include immediately seeking special funding sources for the installation of a Leachate Management System. Option 3 appears too costly for the County and is too costly to secure all grant/appropriation funding by the County at this time. By proceeding with Option 1, the County will bring the facility into compliance with the Rule, and be allowed to operate under the present permit and allow sufficient time to properly plan and seek and secure adequate funding for future options. Leachate management alternatives are outlined in the next sections.

V. LEACHATE MANAGEMENT SYSTEM ALTERNATIVES

As previously illustrated, the County must be prepared for trucking of leachate for disposal and retrofit the existing leachate management system. Because of the time that has elapsed since the last report on the alternatives, description and estimated costs have changed in the market, we have not been able, in the time frame permitted, to collect enough adequate new data on the new and updated figures and are not submitting this data with this submittal and request for variance.

VI. ASSURANCES BY THE COUNTY:

The Glades County Board of County Commissioners and the Solid Waste Department, through its Director, have documented in the past and are doing so presently that the County can, does and will operate the Sanitary Landfill in a clean and safe manner, that *we are and will continue to meet the underlying purpose of Chapter 120.542, F.S. That due to our low solid waste volume, our severe economic and per capital income rankings that *we are in a severe hardship to meet the requirements of the rule at this time.

The Board of Commissioners is actively seeking solutions to this problem and will continue to do so. We have authorized representatives to meet with our legislative delegation and to seek support of other appropriate legislators to have special legislative appropriation(s) introduced and passed for the benefit of this project. The Board of County Commissioners desires to offer as much assurance to FDEP, Solid Waste Division as possible that we will continue to meet the underlying purpose of the statute. We offer the following items at this time and stand ready to negotiate additionally if needed.

1. To provide an additional number ground water monitoring wells, if appropriate and required to provide further monitoring assurance of no ground water contamination now or in the future.

2. Request that appropriate FDEP Officials together with our Professional Consultants make an official presentation in workshop form, where the entire County Commission and appropriate Staff, together with invited Officials of the City of Moore Haven, are updated on the actions needed for an actual long term solution to solid waste problems at the Sanitary Landfill in unincorporated Glades County and the City of Moore Haven.
3. The County Commission understands that this sixty (60) month variance, when approved, is not the solution but only a provided window of time in which the County must find a long term option, present this option to FDEP and then proceed to correct the problem in a manner mutually agreed upon by the County and FDEP.

Attachment:

Certification of Leachate, Ground Water and Surface Water Test result being within acceptable parameters.

CRAIG A. SMITH & ASSOCIATES
CONSULTING ENGINEERS • PLANNERS • SURVEYORS

November 25, 1997

Ms. Mary Jean Yon, Administrator
Solid Waste Section
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

**RE: GLADES COUNTY LANDFILL
SURFACE WATER, GROUND
WATER AND LEACHATE
TEST RESULTS.**

Dear Ms. Yon:

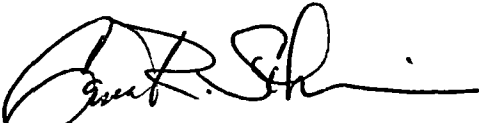
I have been asked to review the test results for the Surface Water, Ground Water and Leachate from the Glades County Sanitary Landfill with regard to having them included in the Board of County Commissioners request for a variance in meeting the newest leachate management rule.

I have reviewed the test results for this Landfill and I find that there are no results falling outside of acceptable parameters. Based upon this technical portion of the submittal I would recommend and encourage approval of the Glades County request for a sixty month variance. This will allow Glades County the time for appropriate planning and funding this project.

If I may be of further assistance in behalf of Glades County please feel free to contact me.

Sincerely,

CRAIG A. SMITH & ASSOCIATES



Gene R. Schriener, P.E.
President

cc: Mrs. June Fisher, County Manager
Mr. David Whidden, Solid Waste Director

SHORT ENVIRONMENTAL LABORATORIES, INC.

10405 US 27 South

Sebring, Florida 33870

1-800-833-4022

HRS# 85344 & E85458, FDEP QAP# 880516

(941) 655-4022

05-28-97

Page 1

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63890

Sample type: Leachate
Project: Glades County
Location: Landfill # 2
Sample ID: Leachate
Sampled by: R. Greene on 03-24-97 @ 1340
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

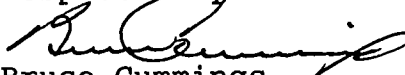
FIELD DATA

Parameter	Result	Units	Method
Conductivity	6040.	umhos/cm	EPA 120.1
pH	7.02	S.U.	EPA 150.1
Dissolved Oxygen	2.3	mg/L	EPA 360.1
Temperature	26.1	Degrees C	EPA 170.1
Colors, Sheens	Color, no sheen		

LABORATORY DATA

Parameter	Result	Units	Method
Total Ammonia (NH3-N)	311.	mg/L	EPA 350.1
Bicarbonate as CaCO3	2520.	mg/L	EPA 310.1
Chloride (Cl)	722.	mg/L	EPA 325.3
Iron (Fe)	9.35	mg/L	EPA 236.1
Mercury (Hg)	< 0.001	mg/L	EPA 245.2
Nitrate (NO3-N)	0.04	mg/L	EPA 353.2
Sodium (Na)	596.	mg/L	EPA 273.1
Total Dissolved Solids	3030.	mg/L	EPA 160.1
Antimony (Sb)	< 0.003	mg/L	EPA 204.2
Arsenic (As)	0.042	mg/L	EPA 206.3
Barium (Ba)	0.09	mg/L	EPA 208.1
Beryllium (Be)	< 0.001	mg/L	EPA 210.2
Cadmium (Cd)	< 0.002	mg/L	EPA 213.1
Chromium (Cr)	0.05	mg/L	EPA 218.1
Cobalt (Co)	< 0.05	mg/L	EPA 6010
Copper (Cu)	< 0.01	mg/L	EPA 220.1
Lead (Pb)	0.005	mg/L	EPA 239.2

Respectfully Submitted,



Bruce Cummings
Laboratory Director

SHORT ENVIRONMENTAL LABORATORIES, INC.

10405 US 27 South

Sebring, Florida 33870

1-800-833-4022

HRS# 85344 & E85458, FDEP QAP# 880516

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05-28-97

Page 2

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63890

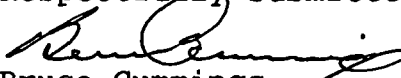
Sample type: Leachate
Project: Glades County
Location: Landfill # 2
Sample ID: Leachate
Sampled by: R. Greene on 03-24-97 @ 1340
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

LABORATORY DATA

Parameter	Result	Units	Method
Nickel (Ni)	0.08	mg/L	EPA 249.1
Selenium (Se)	< 0.005	mg/L	EPA 270.3
Silver (Ag)	< 0.001	mg/L	EPA 272.2
Thallium (Tl)	< 0.002	mg/L	EPA 279.2
Vanadium (V)	< 0.1	mg/L	EPA 286.2
Zinc (Zn)	0.10	mg/L	EPA 289.1
Acetone	< 2.5	ug/L	EPA 8260
Acrylonitrile	< 1.5	ug/L	EPA 8260
Benzene	0.75	ug/L	EPA 8260
Bromochloromethane	< 0.05	ug/L	EPA 8260
Bromodichloromethane	< 0.08	ug/L	EPA 8260
Bromoform	< 0.12	ug/L	EPA 8260
Carbon disulfide	< 5.0	ug/L	EPA 8260
Carbon tetrachloride	< 0.21	ug/L	EPA 8260
Chlorobenzene	1.21	ug/L	EPA 8260
Chloroethane	< 0.10	ug/L	EPA 8260
Chloroform	< 0.03	ug/L	EPA 8260
Dibromochloromethane	< 0.05	ug/L	EPA 8260
1,2-Dibromo-3-chloropropane	< 0.5	ug/L	EPA 8260
1,2-Dibromoethane	< 0.5	ug/L	EPA 8260
o-Dichlorobenzene	< 0.03	ug/L	EPA 8260
p-Dichlorobenzene	1.01	ug/L	EPA 8260
trans-1,4-Dichloro-2-butene	< 10.	ug/L	EPA 8260
1,1-Dichloroethane	< 0.04	ug/L	EPA 8260
1,2-Dichloroethane	< 0.06	ug/L	EPA 8260
1,1-Dichloroethene	< 0.12	ug/L	EPA 8260

Respectfully Submitted,


Bruce Cummings
Laboratory Director

SHORT ENVIRONMENTAL LABORATORIES, INC.
10405 US 27 South
Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP QAP# 880516 (941) 655-4022

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

05-28-97
Page 3

Laboratory Number: 63890


Sample type: Leachate
Project: Glades County
Location: Landfill # 2
Sample ID: Leachate
Sampled by: R. Greene on 03-24-97 @ 1340
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

LABORATORY DATA

Parameter		Result	Units	Method
cis-1,2-Dichloroethene	<	0.1	ug/L	EPA 8260
trans-1,2-Dichloroethene	<	0.06	ug/L	EPA 8260
1,2-Dichloropropane	<	0.04	ug/L	EPA 8260
cis-1,3-Dichloropropene	<	0.05	ug/L	EPA 8260
trans-1,3-Dichloropropene	<	0.04	ug/L	EPA 8260
Ethylbenzene		0.19	ug/L	EPA 8260
2-Hexanone	<	5.	ug/L	EPA 8260
Methyl bromide	<	0.11	ug/L	EPA 8260
Methyl chloride	<	0.13	ug/L	EPA 8260
Methylene bromide	<	0.3	ug/L	EPA 8260
Methylene chloride	<	0.03	ug/L	EPA 8260
Methyl ethyl ketone	<	5.	ug/L	EPA 8260
Methyl iodide	<	0.5	ug/L	EPA 8260
4-Methyl-2-pentanone	<	5.	ug/L	EPA 8260
Styrene	<	1.	ug/L	EPA 8260
1,1,1,2-Tetrachloroethane	<	0.1	ug/L	EPA 8260
1,1,2,2-Tetrachloroethane	<	0.04	ug/L	EPA 8260
Tetrachloroethene	<	0.14	ug/L	EPA 8260
Toluene		0.26	ug/L	EPA 8260
1,1,1-Trichloroethane	<	0.08	ug/L	EPA 8260
1,1,2-Trichloroethane	<	0.1	ug/L	EPA 8260
Trichloroethene	<	0.19	ug/L	EPA 8260
Trichlorofluoromethane	<	0.08	ug/L	EPA 8260
1,2,3-Trichloropropane	<	0.3	ug/L	EPA 8260
Vinyl acetate	<	10.	ug/L	EPA 8260
Vinyl chloride	<	0.17	ug/L	EPA 8260
Xylene (total)		4.76	ug/L	EPA 8260

Respectfully Submitted,


Bruce Cummings
Laboratory Director

PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

MS # 5222C05520

Sample Date 03/24/97

Monitoring Site Glades County Landfill

Well Type: ☐ Background
☐ Detection
☐ Intermediate
☐ Compliance

Well Name Leachate

Classification of Groundwater

Groundwater Elevation ft.
 (above MSL)

Well Developed* Prior to
 Sample Collection (Yes/No)

TORET Code	Parameter Monitored	Sampling Method	Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preser- vatives Added
00094	Conductivity (field)	Bailer	EPA 120.1	6040.	umhos/cm	Unfiltered	None
04060	pH (field)	Bailer	EPA 150.1	7.02	S.U.	Unfiltered	None
00299	Dissolved Oxygen (field)	Bailer	EPA 360.1	2.3	mg/L	Unfiltered	None
00010	Temperature (field)	Bailer	EPA 170.1	26.1	C	Unfiltered	None
85260	Colors & Sheen (field)	Bailer	Obser- vation	Color		Unfiltered	None
00610	Total Ammonia	Bailer	EPA 350.1	311.	mg/L	Unfiltered	H2SO4
04255	Bicarbonate	Bailer	EPA 310.1	2520.	mg/L	Unfiltered	None
00940	Chlorides	Bailer	EPA 325.3	722.	mg/L	Unfiltered	None
01045	Iron	Bailer	EPA 236.1	9.35	mg/L	Unfiltered	HNO3
071900	Mercury	Bailer	EPA 245.2	< 0.001	mg/L	Unfiltered	HNO3
00620	Nitrate	Bailer	EPA 353.2	0.04	mg/L	Unfiltered	H2SO4
00929	Sodium	Bailer	EPA 273.1	596.	mg/L	Unfiltered	HNO3
00929	TDS	Bailer	EPA 160.1	3030.	mg/L	Unfiltered	None

*Well development is the process of pumping the well prior to sampling in order to obtain a representative ground water sample.

SHORT ENVIRONMENTAL LABORATORIES, INC.

10405 US 27 South

Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP QAP# 880516 (941) 655-4022

05-28-97

Page 1

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63891

Sample type: Surface water
Project: Glades County
Location: Landfill # 2
Sample ID: Storm water retention pond
Sampled by: R. Greene on 03-24-97 @ 1405
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

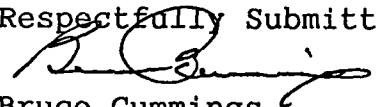
FIELD DATA

Parameter	Result	Units	Method
Conductivity	227.	umhos/cm	EPA 120.1
pH	6.23	S.U.	EPA 150.1
Dissolved Oxygen	3.8	mg/L	EPA 360.1
Turbidity	368.	NTU	EPA 180.1
Temperature	26.2	Degrees C	EPA 170.1
Colors, Sheens	Color, no sheen		

LABORATORY DATA

Parameter	Result	Units	Method
Total Ammonia (NH3-N)	< 0.04	mg/L	EPA 350.1
Unionized Ammonia	< 0.005	mg/L	Calc.
Total Hardness as CaCO3	55.	mg/L	EPA 130.2
Biochemical Oxygen Demand	< 1.	mg/L	EPA 405.1
Iron (Fe)	4.16	mg/L	EPA 236.1
Mercury (Hg)	< 0.001	mg/L	EPA 245.2
Nitrate (NO3-N)	0.06	mg/L	EPA 353.2
Total Dissolved Solids	370.	mg/L	EPA 160.1
Total Organic Carbon	38.	mg/L	EPA 415.1
Fecal Coliform (MF)	80	#/100ml	SM 9222D
Total Phosphorus (P)	0.80	mg/L	EPA 365.2
Chlorophyll A	128.	mg/m3	SM 10200H
Total Kjeldahl Nitrogen (N)	3.41	mg/L	EPA 351.2
Total Nitrogen (N)	3.47	mg/L	Calc.
Chemical Oxygen Demand	138.	mg/L	EPA 410.4
Total Suspended Solids	300.	mg/L	EPA 160.2

Respectfully Submitted,


Bruce Cummings
Laboratory Director

SHORT ENVIRONMENTAL LABORATORIES, INC.

10405 US 27 South

Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP QAP# 880516 (941) 655-4022

05-28-97

Page 2

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63891

Sample type: Surface water
Project: Glades County
Location: Landfill # 2
Sample ID: Storm water retention pond
Sampled by: R. Greene on 03-24-97 @ 1405
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

LABORATORY DATA

Parameter		Result	Units	Method
Antimony (Sb)	<	0.003	mg/L	EPA 204.2
Arsenic (As)	<	0.005	mg/L	EPA 206.3
Barium (Ba)		0.06	mg/L	EPA 208.1
Beryllium (Be)	<	0.001	mg/L	EPA 210.2
Cadmium (Cd)		0.0006	mg/L	EPA 213.2
Chromium (Cr)		0.018	mg/L	EPA 218.2
Cobalt (Co)	<	0.05	mg/L	EPA 6010
Copper (Cu)		0.008	mg/L	EPA 220.2
Lead (Pb)		0.014	mg/L	EPA 239.2
Nickel (Ni)		0.01	mg/L	EPA 249.1
Selenium (Se)	<	0.005	mg/L	EPA 270.3
Silver (Ag)	<	0.001	mg/L	EPA 272.2
Thallium (Tl)	<	0.002	mg/L	EPA 279.2
Vanadium (V)	<	0.1	mg/L	EPA 6010
Zinc (Zn)	<	0.002	mg/L	EPA 289.1
Acetone	<	2.5	ug/L	EPA 8260
Acrylonitrile	<	1.5	ug/L	EPA 8260
Benzene	<	0.04	ug/L	EPA 8260
Bromochloromethane	<	0.05	ug/L	EPA 8260
Bromodichloromethane	<	0.08	ug/L	EPA 8260
Bromoform	<	0.12	ug/L	EPA 8260
Carbon disulfide	<	5.0	ug/L	EPA 8260
Carbon tetrachloride	<	0.21	ug/L	EPA 8260
Chlorobenzene	<	0.04	ug/L	EPA 8260
Chloroethane	<	0.10	ug/L	EPA 8260
Chloroform	<	0.03	ug/L	EPA 8260

Respectfully Submitted,



Bruce Cummings
Laboratory Director

SHORT ENVIRONMENTAL LABORATORIES, INC.

10405 US 27 South

Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP QAP# 880516 (941) 655-4022

05-28-97

Page 3

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63891

Sample type: Surface water
Project: Glades County
Location: Landfill # 2
Sample ID: Storm water retention pond
Sampled by: R. Greene on 03-24-97 @ 1405
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

LABORATORY DATA

Parameter	Result	Units	Method
Dibromochloromethane	< 0.05	ug/L	EPA 8260
1,2-Dibromo-3-chloropropane	< 0.5	ug/L	EPA 8260
1,2-Dibromoethane	< 0.5	ug/L	EPA 8260
o-Dichlorobenzene	< 0.03	ug/L	EPA 8260
p-Dichlorobenzene	< 0.03	ug/L	EPA 8260
trans-1,4-Dichloro-2-butene	< 10.	ug/L	EPA 8260
1,1-Dichloroethane	< 0.12	ug/L	EPA 8260
1,2-Dichloroethane	< 0.06	ug/L	EPA 8260
1,1-Dichloroethylene	< 0.12	ug/L	EPA 8260
cis-1,2-Dichloroethylene	< 0.1	ug/L	EPA 8260
trans-1,2-Dichloroethylene	< 0.06	ug/L	EPA 8260
1,2-Dichloropropane	< 0.04	ug/L	EPA 8260
cis-1,3-Dichloropropene	< 0.05	ug/L	EPA 8260
trans-1,3-Dichloropropene	< 0.04	ug/L	EPA 8260
Ethylbenzene	< 0.06	ug/L	EPA 8260
2-Hexanone	< 5.	ug/L	EPA 8260
Methyl bromide	< 0.11	ug/L	EPA 8260
Methyl chloride	< 0.13	ug/L	EPA 8260
Methylene bromide	< 0.3	ug/L	EPA 8260
Methylene chloride	< 0.03	ug/L	EPA 8260
Methyl ethyl ketone	< 5.	ug/L	EPA 8260
Methyl iodide	< 0.5	ug/L	EPA 8260
4-Methyl-2-pentanone	< 5.	ug/L	EPA 8260
Styrene	< 1.	ug/L	EPA 8260
1,1,1,2-Tetrachloroethane	< 0.1	ug/L	EPA 8260
1,1,2,2-Tetrachloroethane	< 0.04	ug/L	EPA 8260
Tetrachloroethylene	< 0.14	ug/L	EPA 8260

Respectfully Submitted,



Bruce Cummings
Laboratory Director

SHORT ENVIRONMENTAL LABORATORIES, INC.

10405 US 27 South

Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP QAP# 880516 (941) 655-4022

11-01-96

Page 4

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63891

Sample type: Surface water
Project: Glades County
Location: Landfill # 2
Sample ID: Storm water retention pond
Sampled by: R. Greene on 03-24-97 @ 1405
Received: 03-24-97 @ 1530

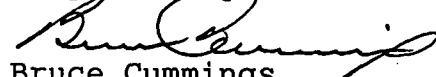
REPORT OF ANALYSIS

LABORATORY DATA

Parameter	Result	Units	Method
Toluene	< 0.11	ug/L	EPA 8260
1,1,1-Trichloroethane	< 0.08	ug/L	EPA 8260
1,1,2-Trichloroethane	< 0.1	ug/L	EPA 8260
Trichloroethylene	< 0.19	ug/L	EPA 8260
Trichlorofluoromethane	< 0.08	ug/L	EPA 8260
1,2,3-Trichloropropane	< 0.3	ug/L	EPA 8260
Vinyl acetate	< 10.	ug/L	EPA 8260
Vinyl chloride	< 0.17	ug/L	EPA 8260
Xylene (total)	< 0.11	ug/L	EPA 8260

EPA Methods 6010, 8260 & SM10200H
performed by HRS# E84098

Respectfully Submitted,



Bruce Cummings
Laboratory Director

PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

MS # 5222C05520

Sample Date 03/24/97

Monitoring Site Glades County Lanfill

Well Type: ☐ Background
☐ Detection
☐ Intermediate
☐ Compliance

Well Name Storm water retention pond

Classification of Groundwater

Groundwater Elevation ft.
 (above MSL)

Well Developed* Prior to
 Sample Collection (Yes/No)

TORET Code	Parameter Monitored	Sampling Method	Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
00094	Conductivity (field)	Bailer	EPA 120.1	227.	umhos/cm	Unfiltered	None
04060	pH (field)	Bailer	EPA 150.1	6.23	S.U.	Unfiltered	None
00299	Dissolved Oxygen (field)	Bailer	EPA 360.1	3.8	mg/L	Unfiltered	None
82078	Turbidity (field)	Bailer	EPA 180.1	368.	NTU	Unfiltered	None
00010	Temperature (field)	Bailer	EPA 170.1	26.2	C	Unfiltered	None
85260	Colors & Sheen (field)	Bailer	Observation	Color		Unfiltered	None
00610	Total Ammonia	Bailer	EPA 350.1	< 0.04	mg/L	Unfiltered	H2SO4
00619	Unionized Ammonia	Bailer	Calc.	< 0.005	mg/L	Unfiltered	H2SO4
00900	Hardness as CaCO3	Bailer	EPA 130.2	55.	mg/L	Unfiltered	None
000310	BOD	Bailer	EPA 405.1	< 1.	mg/L	Unfiltered	None
01045	Iron	Bailer	EPA 236.1	4.16	mg/L	Unfiltered	HNO3
071900	Mercury	Bailer	EPA 245.2	< 0.001	mg/L	Unfiltered	HNO3
00620	Nitrate	Bailer	EPA 353.2	0.06	mg/L	Unfiltered	H2SO4
000929	TDS	Bailer	EPA 160.1	370.	mg/L	Unfiltered	None
00680	TOC	Bailer	EPA 415.1	38.	mg/L	Unfiltered	H2SO4
031616	Fecal Coliform	Bailer	SM 9222D	80	#/100ml	Unfiltered	None
00665	Total phosphorus	Bailer	EPA 365.2	0.80	mg/L	Unfiltered	H2SO4
032230	Chlorophyll A	Bailer	SM 10200H	128.	mg/m3	Unfiltered	None
000625	Total Kjeldahl Nitrogen	Bailer	EPA 351.2	3.41	mg/L	Unfiltered	H2SO4
000600	Total Nitrogen	Bailer	Calc.	3.47	mg/L	Unfiltered	H2SO4

000340	COD	Bailer	EPA 410.4	138.	mg/L	Unfiltered	H2SO4
000530	TSS	Bailer	EPA 160.2	300.	mg/L	Unfiltered	None

*Well development is the process of pumping the well prior to sampling in order to obtain a representative ground water sample.

DER Form 17-1.216(2)
Effective January 1, 1983

Page 6 of 6

SHORT ENVIRONMENTAL LABORATORIES, INC.

10405 US 27 South

Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP QAP# 880516 (941) 655-4022

05-28-97

Page 1

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63887

Sample type: Groundwater
Project: Glades County
Location: Landfill # 2
Sample ID: MW-1
Sampled by: R. Greene on 03-24-97 @ 1150
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

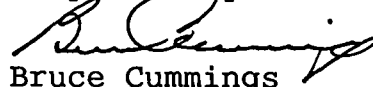
FIELD DATA

Parameter	Result	Units	Method
Conductivity	127.	umhos/cm	EPA 120.1
pH	3.57	S.U.	EPA 150.1
Dissolved Oxygen	2.3	mg/L	EPA 360.1
Turbidity	2.0	NTU	EPA 180.1
Temperature	24.2	Degrees C	EPA 170.1
Colors & Sheens (by observation)	No color, no sheen		
Water depth	6.00	Ft.	
Water level	13.00	Ft.	
Groundwater elevation (TOC)	24.86	Ft.	
Volume removed before sampling	6.36	Gal.	

LABORATORY DATA

Parameter	Result	Units	Method
Total Ammonia (N)	0.46	mg/L	EPA 350.1
Chlorides	21.	mg/L	EPA 325.3
Iron (Fe)	0.34	mg/L	EPA 236.1
Mercury (Hg)	< 0.001	mg/L	EPA 245.2
Nitrate (N)	< 0.02	mg/L	EPA 353.2
Sodium (Na)	11.	mg/L	EPA 273.1
Total Dissolved Solids	212.	mg/L	EPA 160.1
Antimony (Sb)	< 0.003	mg/L	EPA 204.2
Arsenic (As)	< 0.005	mg/L	EPA 206.3
Barium (Ba)	< 0.02	mg/L	EPA 208.1
Beryllium (Be)	< 0.001	mg/L	EPA 210.2
Cadmium (Cd)	< 0.002	mg/L	EPA 213.1
Chromium (Cr)	< 0.02	mg/L	EPA 218.1

Respectfully Submitted,



Bruce Cummings
Laboratory Director

SHORT ENVIRONMENTAL LABORATORIES, INC.
10405 US 27 South
Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP QAP# 880516 (941) 655-4022

05-28-97
Page 2

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63887

Sample type: Groundwater
Project: Glades County
Location: Landfill # 2
Sample ID: MW-1
Sampled by: R. Greene on 03-24-97 @ 1150
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

LABORATORY DATA
Parameter


Result

Units

Method

Cobalt (Co)	< 0.05	mg/L	EPA 6010
Copper (Cu)	< 0.01	mg/L	EPA 220.1
Lead (Pb)	< 0.001	mg/L	EPA 239.2
Nickel (Ni)	< 0.01	mg/L	EPA 249.1
Selenium (Se)	< 0.005	mg/L	EPA 270.2
Silver (Ag)	< 0.001	mg/L	EPA 272.2
Thallium (Tl)	< 0.002	mg/L	EPA 279.2
Vanadium (V)	< 0.10	mg/L	EPA 6010
Zinc (Zn)	< 0.002	mg/L	EPA 289.1
Acetone	< 2.5	ug/L	EPA 8260
Acrylonitrile	< 1.5	ug/L	EPA 8260
Benzene	< 0.04	ug/L	EPA 8260
Bromochloromethane	< 0.5	ug/L	EPA 8260
Bromodichloromethane	< 0.08	ug/L	EPA 8260
Bromoform	< 0.12	ug/L	EPA 8260
Carbon disulfide	< 5.	ug/L	EPA 8260
Carbon tetrachloride	< 0.21	ug/L	EPA 8260
Chlorobenzene	< 0.04	ug/L	EPA 8260
Chloroethane	< 0.1	ug/L	EPA 8260
Chloroform	< 0.03	ug/L	EPA 8260
Dibromochloromethane	< 0.05	ug/L	EPA 8260
1,2-Dibromo-3-chloropropane	< 0.5	ug/L	EPA 8260
1,2-Dibromoethane	< 0.5	ug/L	EPA 8260
o-Dichlorobenzene	< 0.03	ug/L	EPA 8260
p-Dichlorobenzene	< 0.03	ug/L	EPA 8260

Respectfully Submitted,


Bruce Cummings
Laboratory Director

SHORT ENVIRONMENTAL LABORATORIES, INC.

10405 US 27 South

Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP QAP# 880516 (941) 655-4022

05-28-97

Page 3

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63887

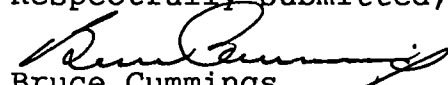
Sample type: Groundwater
Project: Glades County
Location: Landfill # 2
Sample ID: MW-1
Sampled by: R. Greene on 03-24-97 @ 1150
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

LABORATORY DATA

Parameter		Result	Units	Method
trans-1,4-Dichloro-2-butene	<	10.	ug/L	EPA 8260
1,1-Dichloroethane	<	0.04	ug/L	EPA 8260
1,2-Dichloroethane	<	0.06	ug/L	EPA 8260
1,1-Dichloroethylene	<	0.12	ug/L	EPA 8260
cis-1,2-Dichloroethylene	<	0.1	ug/L	EPA 8260
trans-1,2-Dichloroethylene	<	0.06	ug/L	EPA 8260
1,2-Dichloropropane	<	0.04	ug/L	EPA 8260
cis-1,3-Dichloropropene	<	0.05	ug/L	EPA 8260
trans-1,3-Dichloropropene	<	0.04	ug/L	EPA 8260
Ethylbenzene	<	0.06	ug/L	EPA 8260
2-Hexanone	<	5.	ug/L	EPA 8260
Methyl bromide	<	0.11	ug/L	EPA 8260
Methyl chloride	<	0.13	ug/L	EPA 8260
Methylene bromide	<	0.3	ug/L	EPA 8260
Methylene chloride	<	0.03	ug/L	EPA 8260
Methyl ethyl ketone	<	5.0	ug/L	EPA 8260
Methyl iodide	<	0.5	ug/L	EPA 8260
4-Methyl-2-pentanone	<	5.0	ug/L	EPA 8260
Styrene	<	1.	ug/L	EPA 8260
1,1,1,2-Tetrachloroethane	<	0.1	ug/L	EPA 8260
1,1,2,2-Tetrachloroethane	<	0.04	ug/L	EPA 8260
Tetrachloroethylene	<	0.14	ug/L	EPA 8260
Toluene	<	0.11	ug/L	EPA 8260
1,1,1-Trichloroethane	<	0.08	ug/L	EPA 8260
1,1,2-Trichloroethane	<	0.1	ug/L	EPA 8260
Trichloroethylene	<	0.19	ug/L	EPA 8260

Respectfully Submitted,


Bruce Cummings
Laboratory Director

SHORT ENVIRONMENTAL LABORATORIES, INC.

10405 US 27 South

Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP-QAP# 880516 (941) 655-4022

05-28-97

Page 4

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63887

Sample type: Groundwater
Project: Glades County
Location: Landfill # 2
Sample ID: MW-1
Sampled by: R. Greene on 03-24-97 @ 1150
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

LABORATORY DATA

Parameter		Result	Units	Method
Trichlorofluoromethane	<	0.08	ug/L	EPA 8260
1,2,3-Trichloropropane	<	0.3	ug/L	EPA 8260
Vinyl acetate	<	10.	ug/L	EPA 8260
Vinyl chloride	<	0.17	ug/L	EPA 8260
Xylenes	<	0.11	ug/L	EPA 8260

EPA 6010 & 8260 performed by HRS# E84098

Respectfully Submitted,


Bruce Cummings
Laboratory Director

PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

MS # 5222C05520

Sample Date 03/24/97

Monitoring Site Glades County Landfill

Well Type: ☒ Background
☐ Detection
☐ Intermediate
☐ Compliance

Well Name MW-1

Classification of Groundwater G-II

Groundwater Elevation 24.86 ft.
(above MSL)

Well Developed* Prior to
Sample Collection (Yes/No) YES

TORET Code	Parameter Monitored	Sampling Method	Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preser- vatives Added
000094	Conductivity (field)	Bailer	EPA 120.1	127.	umhos/cm	Unfiltered	None
004060	pH (field)	Bailer	EPA 150.1	3.57	S.U.	Unfiltered	None
000299	Dissolved Oxygen (field)	Bailer	EPA 360.1	2.3	mg/L	Unfiltered	None
082078	Turbidity (field)	Bailer	EPA 180.1	2.0	NTU	Unfiltered	None
000010	Temperature (field)	Bailer	EPA 170.1	24.2	C	Unfiltered	None
085260	Colors & Sheen (field)	Bailer	Obser- vation	None		Unfiltered	None
000610	Total Ammonia	Bailer	EPA 350.1	0.46	mg/L	Unfiltered	H2SO4
000940	Chlorides	Bailer	EPA 325.3	21.	mg/L	Unfiltered	None
001045	Iron	Bailer	EPA 236.1	0.34	mg/L	Unfiltered	HNO3
071900	Mercury	Bailer	EPA 245.2	< 0.001	mg/L	Unfiltered	HNO3
000620	Nitrate	Bailer	EPA 353.2	< 0.02	mg/L	Unfiltered	H2SO4
000929	Sodium	Bailer	EPA 273.1	11.	mg/L	Unfiltered	HNO3
000929	TDS	Bailer	EPA 160.1	212.	mg/L	Unfiltered	None

*Well development is the process of pumping the well prior to sampling in order to obtain a representative ground water sample.

SHORT ENVIRONMENTAL LABORATORIES, INC.
10405 US 27 South
Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP-QAP# 880516 (941) 655-4022

05-28-97

Page 1

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63888

Sample type: Groundwater
Project: Glades County
Location: Landfill # 2
Sample ID: MW-3
Sampled by: R. Greene on 03-24-97 @ 1325
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

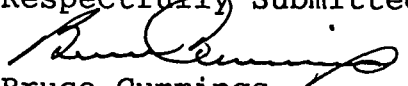
FIELD DATA

Parameter	Result	Units	Method
Conductivity	183.	umhos/cm	EPA 120.1
pH	5.32	S.U.	EPA 150.1
Dissolved Oxygen	2.6	mg/L	EPA 360.1
Turbidity	1.0	NTU	EPA 180.1
Temperature	25.9	Degrees C	EPA 170.1
Colors & Sheens (by observation)	No color, no sheen		
Water depth	7.50	Ft.	
Water level	11.90	Ft.	
Groundwater elevation (TOC)	18.48	Ft.	
Volume removed before sampling	5.82	Gal.	

LABORATORY DATA

Parameter	Result	Units	Method
Total Ammonia (N)	0.15	mg/L	EPA 350.1
Chlorides	25.	mg/L	EPA 325.3
Iron (Fe)	0.16	mg/L	EPA 236.1
Mercury (Hg)	< 0.001	mg/L	EPA 245.2
Nitrate (N)	< 0.02	mg/L	EPA 353.2
Sodium (Na)	11.	mg/L	EPA 273.1
Total Dissolved Solids	132.	mg/L	EPA 160.1
Antimony (Sb)	< 0.003	mg/L	EPA 204.2
Arsenic (As)	< 0.005	mg/L	EPA 206.3
Barium (Ba)	< 0.02	mg/L	EPA 208.1
Beryllium (Be)	< 0.001	mg/L	EPA 210.2
Cadmium (Cd)	< 0.002	mg/L	EPA 213.1
Chromium (Cr)	< 0.02	mg/L	EPA 218.1

Respectfully Submitted,


Bruce Cummings
Laboratory Director

SHORT ENVIRONMENTAL LABORATORIES, INC.

10405 US 27 South

Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP QAP# 880516 (941) 655-4022

05-28-97

Page 2

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63888

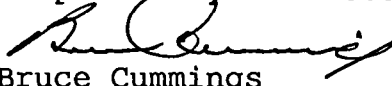
Sample type: Groundwater
Project: Glades County
Location: Landfill # 2
Sample ID: MW-3
Sampled by: R. Greene on 03-24-97 @ 1325
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

LABORATORY DATA

Parameter		Result	Units	Method
Cobalt (Co)	<	0.05	mg/L	EPA 6010
Copper (Cu)	<	0.01	mg/L	EPA 220.1
Lead (Pb)	<	0.001	mg/L	EPA 239.2
Nickel (Ni)	<	0.01	mg/L	EPA 249.1
Selenium (Se)	<	0.005	mg/L	EPA 270.2
Silver (Ag)	<	0.001	mg/L	EPA 272.2
Thallium (Tl)	<	0.002	mg/L	EPA 279.2
Vanadium (V)	<	0.10	mg/L	EPA 6010
Zinc (Zn)	<	0.002	mg/L	EPA 289.1
Acetone	<	2.5	ug/L	EPA 8260
Acrylonitrile	<	1.5	ug/L	EPA 8260
Benzene	<	0.04	ug/L	EPA 8260
Bromochloromethane	<	0.5	ug/L	EPA 8260
Bromodichloromethane	<	0.08	ug/L	EPA 8260
Bromoform	<	0.12	ug/L	EPA 8260
Carbon disulfide	<	5.	ug/L	EPA 8260
Carbon tetrachloride	<	0.21	ug/L	EPA 8260
Chlorobenzene	<	0.04	ug/L	EPA 8260
Chloroethane	<	0.1	ug/L	EPA 8260
Chloroform	<	0.03	ug/L	EPA 8260
Dibromochloromethane	<	0.05	ug/L	EPA 8260
1,2-Dibromo-3-chloropropane	<	0.5	ug/L	EPA 8260
1,2-Dibromoethane	<	0.5	ug/L	EPA 8260
o-Dichlorobenzene	<	0.03	ug/L	EPA 8260
p-Dichlorobenzene	<	0.03	ug/L	EPA 8260

Respectfully Submitted,


Bruce Cummings
Laboratory Director

SHORT ENVIRONMENTAL LABORATORIES, INC.

10405 US 27 South

Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP-QAP# 880516 (941) 655-4022

05-28-97

Page 3

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63888

Sample type: Groundwater
Project: Glades County
Location: Landfill # 2
Sample ID: MW-3
Sampled by: R. Greene on 03-24-97 @ 1325
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

LABORATORY DATA

Parameter		Result	Units	Method
trans-1,4-Dichloro-2-butene	<	10.	ug/L	EPA 8260
1,1-Dichloroethane	<	0.04	ug/L	EPA 8260
1,2-Dichloroethane	<	0.06	ug/L	EPA 8260
1,1-Dichloroethylene	<	0.12	ug/L	EPA 8260
cis-1,2-Dichloroethylene	<	0.1	ug/L	EPA 8260
trans-1,2-Dichloroethylene	<	0.06	ug/L	EPA 8260
1,2-Dichloropropane	<	0.04	ug/L	EPA 8260
cis-1,3-Dichloropropene	<	0.05	ug/L	EPA 8260
trans-1,3-Dichloropropene	<	0.04	ug/L	EPA 8260
Ethylbenzene	<	0.06	ug/L	EPA 8260
2-Hexanone	<	5.	ug/L	EPA 8260
Methyl bromide	<	0.11	ug/L	EPA 8260
Methyl chloride	<	0.13	ug/L	EPA 8260
Methylene bromide	<	0.3	ug/L	EPA 8260
Methylene chloride	<	0.03	ug/L	EPA 8260
Methyl ethyl ketone	<	5.0	ug/L	EPA 8260
Methyl iodide	<	0.5	ug/L	EPA 8260
4-Methyl-2-pentanone	<	5.0	ug/L	EPA 8260
Styrene	<	1.	ug/L	EPA 8260
1,1,1,2-Tetrachloroethane	<	0.1	ug/L	EPA 8260
1,1,2,2-Tetrachloroethane	<	0.04	ug/L	EPA 8260
Tetrachloroethylene	<	0.14	ug/L	EPA 8260
Toluene	<	0.11	ug/L	EPA 8260
1,1,1-Trichloroethane	<	0.08	ug/L	EPA 8260
1,1,2-Trichloroethane	<	0.1	ug/L	EPA 8260
Trichloroethylene	<	0.19	ug/L	EPA 8260

Respectfully Submitted,


Bruce Cummings
Laboratory Director

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10405 US 27 South

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05-28-97

Page 4

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63888

Sample type: Groundwater
Project: Glades County
Location: Landfill # 2
Sample ID: MW-3
Sampled by: R. Greene on 03-24-97 @ 1325
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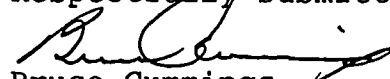
REPORT OF ANALYSIS

LABORATORY DATA

Parameter	Result	Units	Method
Trichlorofluoromethane	< 0.08	ug/L	EPA 8260
1,2,3-Trichloropropane	< 0.3	ug/L	EPA 8260
Vinyl acetate	< 10.	ug/L	EPA 8260
Vinyl chloride	< 0.17	ug/L	EPA 8260
Xylenes	< 0.11	ug/L	EPA 8260

EPA 6010 & 8260 performed by HRS# E84098

Respectfully Submitted,



Bruce Cummings
Laboratory Director

PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

MS # 5222C05520

Sample Date 03/24/97

Monitoring Site Glades County Landfill

Well Type: ☐ Background
☐ Detection
☐ Intermediate
☒ Compliance

Well Name MW-3

Classification of Groundwater G-II

Groundwater Elevation 18.48 ft.
(above MSL)

Well Developed* Prior to
Sample Collection (Yes/No) YES

TORET Code	Parameter Monitored	Sampling Method	Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preser- vatives Added
00094	Conductivity (field)	Bailer	EPA 120.1	183.	umhos/cm	Unfiltered	None
04060	pH (field)	Bailer	EPA 150.1	5.32	S.U.	Unfiltered	None
00299	Dissolved Oxygen (field)	Bailer	EPA 360.1	2.6	mg/L	Unfiltered	None
082078	Turbidity (field)	Bailer	EPA 180.1	1.0	NTU	Unfiltered	None
000010	Temperature (field)	Bailer	EPA 170.1	25.9	C	Unfiltered	None
085260	Colors & Sheen (field)	Bailer	Obser- vation	None		Unfiltered	None
000610	Total Ammonia	Bailer	EPA 350.1	0.15	mg/L	Unfiltered	H2SO4
000940	Chlorides	Bailer	EPA 325.3	25.	mg/L	Unfiltered	None
01045	Iron	Bailer	EPA 236.1	0.16	mg/L	Unfiltered	HNO3
071900	Mercury	Bailer	EPA 245.2	< 0.001	mg/L	Unfiltered	HNO3
000620	Nitrate	Bailer	EPA 353.2	< 0.02	mg/L	Unfiltered	H2SO4
000929	Sodium	Bailer	EPA 273.1	11.	mg/L	Unfiltered	HNO3
000929	TDS	Bailer	EPA 160.1	132.	mg/L	Unfiltered	None

*Well development is the process of pumping the well prior to sampling in order to obtain a representative ground water sample.

SHORT ENVIRONMENTAL LABORATORIES, INC.

10405 US 27 South

Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP QAP# 880516 (941) 655-4022

05-28-97

Page 1

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63889

Sample type: Groundwater
Project: Glades County
Location: Landfill # 2
Sample ID: MW-8
Sampled by: R. Greene on 03-24-97 @ 1240
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

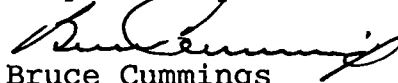
FIELD DATA

Parameter	Result	Units	Method
Conductivity	124.	umhos/cm	EPA 120.1
pH	3.98	S.U.	EPA 150.1
Dissolved Oxygen	2.8	mg/L	EPA 360.1
Turbidity	0.4	NTU	EPA 180.1
Temperature	24.9	Degrees C	EPA 170.1
Colors & Sheens (by observation)	No color, no sheen		
Water depth	5.40	Ft.	
Water level	13.30	Ft.	
Groundwater elevation (TOC)	-----	Ft.	
Volume removed before sampling	6.50	Gal.	

LABORATORY DATA

Parameter	Result	Units	Method
Total Ammonia (N)	0.34	mg/L	EPA 350.1
Chlorides	22.	mg/L	EPA 325.3
Iron (Fe)	1.06	mg/L	EPA 236.1
Mercury (Hg)	< 0.001	mg/L	EPA 245.2
Nitrate (N)	< 0.02	mg/L	EPA 353.2
Sodium (Na)	7.9	mg/L	EPA 273.1
Total Dissolved Solids	82.	mg/L	EPA 160.1
Antimony (Sb)	< 0.003	mg/L	EPA 204.2
Arsenic (As)	< 0.005	mg/L	EPA 206.3
Barium (Ba)	0.08	mg/L	EPA 208.1
Beryllium (Be)	< 0.001	mg/L	EPA 210.2
Cadmium (Cd)	< 0.002	mg/L	EPA 213.1
Chromium (Cr)	0.02	mg/L	EPA 218.1

Respectfully Submitted,



Bruce Cummings
Laboratory Director

SHORT ENVIRONMENTAL LABORATORIES, INC.

10405 US 27 South

Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP QAP# 880516 (941) 655-4022

05-28-97

Page 2

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63889

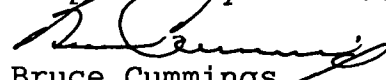
Sample type: Groundwater
Project: Glades County
Location: Landfill # 2
Sample ID: MW-8
Sampled by: R. Greene on 03-24-97 @ 1240
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

LABORATORY DATA

Parameter		Result	Units	Method
Cobalt (Co)	<	0.05	mg/L	EPA 6010
Copper (Cu)	<	0.01	mg/L	EPA 220.1
Lead (Pb)	<	0.001	mg/L	EPA 239.2
Nickel (Ni)		0.10	mg/L	EPA 249.1
Selenium (Se)	<	0.005	mg/L	EPA 270.2
Silver (Ag)	<	0.001	mg/L	EPA 272.2
Thallium (Tl)	<	0.002	mg/L	EPA 279.2
Vanadium (V)	<	0.10	mg/L	EPA 6010
Zinc (Zn)	<	0.002	mg/L	EPA 289.1
Acetone	<	2.5	ug/L	EPA 8260
Acrylonitrile	<	1.5	ug/L	EPA 8260
Benzene	<	0.04	ug/L	EPA 8260
Bromochloromethane	<	0.5	ug/L	EPA 8260
Bromodichloromethane	<	0.08	ug/L	EPA 8260
Bromoform	<	0.12	ug/L	EPA 8260
Carbon disulfide	<	5.	ug/L	EPA 8260
Carbon tetrachloride	<	0.21	ug/L	EPA 8260
Chlorobenzene	<	0.04	ug/L	EPA 8260
Chloroethane	<	0.1	ug/L	EPA 8260
Chloroform	<	0.03	ug/L	EPA 8260
Dibromochloromethane	<	0.05	ug/L	EPA 8260
1,2-Dibromo-3-chloropropane	<	0.5	ug/L	EPA 8260
1,2-Dibromoethane	<	0.5	ug/L	EPA 8260
o-Dichlorobenzene	<	0.03	ug/L	EPA 8260
p-Dichlorobenzene	<	0.03	ug/L	EPA 8260

Respectfully Submitted,



Bruce Cummings
Laboratory Director

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10405 US 27 South

Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP QAP# 880516 (941) 655-4022

05-28-97

Page 3

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63889

Sample type: Groundwater
Project: Glades County
Location: Landfill # 2
Sample ID: MW-8
Sampled by: R. Greene on 03-24-97 @ 1240
Received: 03-24-97 @ 1530

REPORT OF ANALYSIS

LABORATORY DATA

Parameter	Result	Units	Method
trans-1,4-Dichloro-2-butene	< 10.	ug/L	EPA 8260
1,1-Dichloroethane	< 0.04	ug/L	EPA 8260
1,2-Dichloroethane	< 0.06	ug/L	EPA 8260
1,1-Dichloroethylene	< 0.12	ug/L	EPA 8260
cis-1,2-Dichloroethylene	< 0.1	ug/L	EPA 8260
trans-1,2-Dichloroethylene	< 0.06	ug/L	EPA 8260
1,2-Dichloropropane	< 0.04	ug/L	EPA 8260
cis-1,3-Dichloropropene	< 0.05	ug/L	EPA 8260
trans-1,3-Dichloropropene	< 0.04	ug/L	EPA 8260
Ethylbenzene	< 0.06	ug/L	EPA 8260
2-Hexanone	< 5.	ug/L	EPA 8260
Methyl bromide	< 0.11	ug/L	EPA 8260
Methyl chloride	< 0.13	ug/L	EPA 8260
Methylene bromide	< 0.3	ug/L	EPA 8260
Methylene chloride	< 0.03	ug/L	EPA 8260
Methyl ethyl ketone	< 5.0	ug/L	EPA 8260
Methyl iodide	< 0.5	ug/L	EPA 8260
4-Methyl-2-pentanone	< 5.0	ug/L	EPA 8260
Styrene	< 1.	ug/L	EPA 8260
1,1,1,2-Tetrachloroethane	< 0.1	ug/L	EPA 8260
1,1,2,2-Tetrachloroethane	< 0.04	ug/L	EPA 8260
Tetrachloroethylene	< 0.14	ug/L	EPA 8260
Toluene	< 0.11	ug/L	EPA 8260
1,1,1-Trichloroethane	< 0.08	ug/L	EPA 8260
1,1,2-Trichloroethane	< 0.1	ug/L	EPA 8260
Trichloroethylene	< 0.19	ug/L	EPA 8260

Respectfully Submitted,


Bruce Cummings
Laboratory Director

SHORT ENVIRONMENTAL LABORATORIES, INC.

10405 US 27 South

Sebring, Florida 33870

1-800-833-4022 HRS# 85344 & E85458, FDEP QAP# 880516 (941) 655-4022

05-28-97

Page 4

For: Attn: David Whidden
Glades County Landfill
P.O. Box 116
Moore Haven, FL 33471

Laboratory Number: 63889

Sample type: Groundwater
Project: Glades County
Location: Landfill # 2
Sample ID: MW-8
Sampled by: R. Greene on 03-24-97 @ 1240
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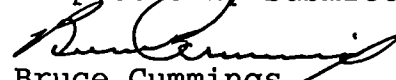
REPORT OF ANALYSIS

LABORATORY DATA

Parameter	Result	Units	Method
Trichlorofluoromethane	< 0.08	ug/L	EPA 8260
1,2,3-Trichloropropane	< 0.3	ug/L	EPA 8260
Vinyl acetate	< 10.	ug/L	EPA 8260
Vinyl chloride	< 0.17	ug/L	EPA 8260
Xylenes	< 0.11	ug/L	EPA 8260

EPA 6010 & 8260 performed by HRS# E84098

Respectfully Submitted,


Bruce Cummings
Laboratory Director

PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

S # 5222C05520

Sample Date 03/24/97

Monitoring Site Glades County Landfill

Well Type: ☐ Background
☐ Detection
☐ Intermediate
☒ Compliance

Well Name MW-8

Classification of Groundwater G-II

Groundwater Elevation ft.
 (above MSL)

Well Developed* Prior to
 Sample Collection (Yes/No) YES

WELL Code	Parameter Monitored	Sampling Method	Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preser- vatives Added
1094	Conductivity (field)	Bailer	EPA 120.1	124.	umhos/cm	Unfiltered	None
1060	pH (field)	Bailer	EPA 150.1	3.98	S.U.	Unfiltered	None
10299	Dissolved Oxygen (field)	Bailer	EPA 360.1	2.8	mg/L	Unfiltered	None
10278	Turbidity (field)	Bailer	EPA 180.1	0.4	NTU	Unfiltered	None
10010	Temperature (field)	Bailer	EPA 170.1	24.9	C	Unfiltered	None
15260	Colors & Sheen (field)	Bailer	Obser- vation	None		Unfiltered	None
10610	Total Ammonia	Bailer	EPA 350.1	0.34	mg/L	Unfiltered	H2SO4
10940	Chlorides	Bailer	EPA 325.3	22.	mg/L	Unfiltered	None
11045	Iron	Bailer	EPA 236.1	1.06	mg/L	Unfiltered	HNO3
11900	Mercury	Bailer	EPA 245.2	< 0.001	mg/L	Unfiltered	HNO3
10620	Nitrate	Bailer	EPA 353.2	< 0.02	mg/L	Unfiltered	H2SO4
10929	Sodium	Bailer	EPA 273.1	7.9	mg/L	Unfiltered	HNO3
10929	TDS	Bailer	EPA 160.1	82.	mg/L	Unfiltered	None

Well development is the process of pumping the well prior to sampling in order to obtain a representative ground water sample.