FILE COPY

KEENE ROAD SOUTH CLASS III LANDFILL
230 WEST KEENE ROAD
APOPKA, ORANGE COUNTY, FLORIDA

APPLICATION FOR RENEWAL OF CLASS III LANDFILL CONSTRUCTION AND OPERATION PERMITS

Submitted to:

Florida Department of Environmental Protection
3313 Maguire Boulevard, Suite 232
Orlando, Florida 32803

RECEIVED
JAN 20 2006
Central Dist. - DEP

Applicant:

WASTE MANAGEMENT INC. OF FLORIDA
255 WEST KEENE ROAD
APOPKA, FLORIDA 32703
407-886-2920

Prepared by:

S2L, INCORPORATED
531 Versailles Drive, Suite 202
Maitland, Florida 32751
407-475-9163

William J. Edwards, P.E.
Florida Registration No. 60876
Date: 1/18/06

WASTE MANAGEMENT

January 13, 2006

WASTE MANAGEMENT
2859 Paces Ferry Road
Suite 1600
Atlanta, GA 30339
(770) 805-4130 Main

Mr. James N. Bradner, P.E., Program Manager
Solid and Hazardous Waste Program
Florida Department of Environmental Protection
Central District
3319 Maguire Boulevard, Suite 232
Orlando, FL 32803-3767

RE: Application for Permit Renewal (#SC48-0165969-001 and SO48-0165969-002)
Keene Road South Class III Landfill
Orange County, Florida

Dear Mr. Bradner:

Waste Management Inc. of Florida (WMIF) is pleased to submit four (4) copies of the Permit Modification Application for the Keene Road South Class III Landfill (f/k/a/ Buttrey Development Landfill) located at 230 West Keene Road, Apopka, Orange County, Florida.

This application has been prepared in accordance with the applicable sections of Chapter 62-701, Florida Administrative Code. Please also find enclosed a check in the amount of Ten Thousand ($10,000.00) as required by Chapter 62-701.315(5)(a), FAC.

If there are any questions regarding the enclosed document, please contact William J. (Johnny) Edwards at S2L, Incorporated (S2Li) at 407-475-9163.

Very truly yours,

Waste Management Inc. of Florida

R. David McConnell
Vice President

Enclosures

S2Li

January 12, 2006

Mr. R. David McConnell, Vice President
Waste Management Inc. of Florida
2859 Paces Ferry Road, Suite 1600
Atlanta, GA 30339

RE: Application for Permit Renewal (#SC48-0165969-001 and SO48-0165969-002)
Keene Road South Class III Landfill
Orange County, Florida

Dear Mr. McConnell:

S2L, Incorporated (S2Li) is pleased to enclose an application to renew the Operation Permit for the Keene Road South Class III landfill located at 230 West Keene Road, Apopka, Orange County, Florida.

This application has been prepared in accordance with the applicable sections of Chapter 62-701, Florida Administrative Code, and provides the required facility information for FDEP review and approval.

Please be advised that the permit application fee of ten thousand dollars ($10,000.00) payable to the Florida Department of Environmental Protection will be required in accordance with Rule 62-701.315(5)(a), FAC.

S2Li appreciates the opportunity to prepare this application for WMIF. If there are any questions regarding the enclosed document, please contact me at 407-475-9163.

Sincerely,

S2L, Incorporated

William J. Edwards, P.E., Senior Engineer
Florida Registration No. 60376

Enclosures

cc: Bob Oliver – WMIF
John Cook – WMIF

531 VERSAILLES DRIVE, SUITE 202 ◘ MAITLAND, FL 32751-7301
407-475-9163 Fax 407-475-9169 www.s2li.com

Florida Department of Environmental Protection
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, FL 32399-2400

DEP Form # 62-701.900(1)
Form Title Solid Waste Management Facility Permit
Effective Date 05-27-01

DEP Application No.
(Filled by DEP)

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

APPLICATION FOR A PERMIT TO CONSTRUCT, OPERATE, MODIFY OR CLOSE A SOLID WASTE MANAGEMENT FACILITY

APPLICATION INSTRUCTIONS AND FORMS

Northwest District
160 Governmental Center
Pensacola, FL 32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste. B200
Jacksonville, FL 32256-7590
904-448-4300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-894-7555

Southwest District
3804 Coconut Palm Dr.
Tampa, FL 33619
813-744-6100

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33901-3881
941-332-6975

Southeast District
400 North Congress Ave.
West Palm Beach, FL 33401
561-681-6600

INSTRUCTIONS TO APPLY FOR A SOLID WASTE MANAGEMENT FACILITY PERMIT

I. General

Solid Waste Management Facilities shall be permitted pursuant to Section 403.707, Florida Statutes, (FS) and in accordance with Florida Administrative Code (FAC) Chapter 62-701. A minimum of four copies of the application shall be submitted to the Department's District Office having jurisdiction over the facility. The appropriate fee in accordance with Rule 62-701.315, FAC, shall be submitted with the application by check made payable to the Department of Environmental Protection (DEP).

Complete appropriate sections for the type of facility for which application is made. Entries shall be typed or printed in ink. All blanks shall be filled in or marked "not applicable" or "no substantial change". Information provided in support of the application shall be marked "submitted" and the location of this information in the application package indicated. The application shall include all information, drawings, and reports necessary to evaluate the facility. Information required to complete the application is listed on the attached pages of this form.

II. Application Parts Required for Construction and Operation Permits

A. Landfills and Ash Monofills - Submit parts A,B, D through T
B. Asbestos Monofills - Submit parts A,B,D,E,F,G,J,L,N, P through S, and T
C. Industrial Solid Waste Facilities - Submit parts A,B, D through T
D. Non-Disposal Facilities - Submit parts A,C,D,E,J,N,S and T

NOTE: Portions of some parts may not be applicable.

NOTE: For facilities that have been satisfactorily constructed in accordance with their construction permit, the information required for A,B,C and D type facilities does not have to be resubmitted for an operation permit if the information has not substantially changed during the construction period. The appropriate portion of the form should be marked "no substantial change".

III. Application Parts Required for Closure Permits

A. Landfills and Ash Monofills - Submit parts A,B,M, O through T
B. Asbestos Monofills - Submit parts A,B,N, P through T
C. Industrial Solid Waste Facilities - Submit parts A,B, M through T
D. Non-Disposal Facilities - Submit parts A,C,N,S and T

NOTE: Portions of some parts may not be applicable.

IV. Permit Renewals

The above information shall be submitted at time of permit renewal in support of the new permit. However, facility information that was submitted to the Department to support the expiring permit, and which is still valid, does not need to be re-submitted for permit renewal. Portions of the application not re-submitted shall be marked "no substantial change" on the application form.

V. Application Codes

S	-	Submitted
LOCATION	-	Physical location of information in application
N/A	-	Not Applicable
N/C	-	No Substantial Change

VI. LISTING OF APPLICATION PARTS

PART A: GENERAL INFORMATION

PART B: DISPOSAL FACILITY GENERAL INFORMATION

PART C: NON-DISPOSAL FACILITY GENERAL INFORMATION

PART D: PROHIBITIONS

PART E: SOLID WASTE MANAGEMENT FACILITY PERMIT REQUIREMENTS, GENERAL

PART F: LANDFILL PERMIT REQUIREMENTS

PART G: GENERAL CRITERIA FOR LANDFILLS

PART H: LANDFILL CONSTRUCTION REQUIREMENTS

PART I: HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS

PART J: GEOTECHNICAL INVESTIGATION REQUIREMENTS

PART K: VERTICAL EXPANSION OF LANDFILLS

PART L: LANDFILL OPERATION REQUIREMENTS

PART M: WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS

PART N: SPECIAL WASTE HANDLING REQUIREMENTS

PART O: GAS MANAGEMENT SYSTEM REQUIREMENTS

PART P: LANDFILL CLOSURE REQUIREMENTS

PART Q: CLOSURE PROCEDURES

PART R: LONG TERM CARE REQUIREMENTS

PART S: FINANCIAL RESPONSIBILITY REQUIREMENTS

PART T: CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
APPLICATION FOR A PERMIT TO CONSTRUCT, OPERATE, MODIFY OR CLOSE
A SOLID WASTE MANAGEMENT FACILITY

Please Type or Print

A. GENERAL INFORMATION

1. Type of facility (check all that apply):

[x] Disposal
- [ ] Class I Landfill
- [ ] Class II Landfill
- [x] Class III Landfill
- [ ] Other Describe: _____
- [ ] Ash Monofill
- [ ] Asbestos Monofill
- [ ] Industrial Solid Waste

[ ] Non-Disposal
- [ ] Incinerator For Non-biomedical Waste
- [ ] Waste to Energy Without Power Plant Certification
- [ ] Other Describe: _____

NOTE: Waste Processing Facilities should apply on Form 62-701.900(4), FAC; Land Clearing Disposal Facilities should notify on Form 62-701.900(3), FAC; Compost Facilities should apply on Form 62-701.900(10), FAC; and C&D Disposal Facilities should apply on Form 62-701.900(6), FAC

2. Type of application:
- [ ] Construction
- [ ] Operation
- [x] Construction/Operation
- [ ] Closure

3. Classification of application:
- [ ] New
- [x] Renewal
- [ ] Substantial Modification
- [ ] Intermediate Modification
- [ ] Minor Modification

4. Facility name: Keene Road South (f/k/a Buttrey Development Landfill)

5. DEP ID number: WACS 87081 County: Orange

6. Facility location (main entrance): 230 West Keene Road, Apopka, Florida 32703

7. Location coordinates:

Section: 28 Township: 21S Range: 28E

Latitude: 28 ° 38 ' 25 " Longitude: 81 ° 30 ' 42 "

8. Applicant name (operating authority): Waste Management Inc. of Florida

Mailing address: 2859 Paces Ferry Road, Ste. 1600, Atlanta, Georgia 30339
Street or P.O. Box City State Zip

Contact person: R. David McConnell Telephone: (770) 805-3345

Title: Vice President

dmcconell@wm.com
E-Mail address (if available)

9. Authorized agent/Consultant: S2L, Incorporated

Mailing address: 531 Versailles Dr., Suite 202 Maitland, Florida 32751
Street or P.O. Box City State Zip

Contact person: William J. Edwards, P.E. Telephone: (407) 475-9163

Title: Senior Engineer

jedwards@s2li.com
E-Mail address (if available)

10. Landowner(if different than applicant): _____

Mailing address: _____
Street or P.O. Box City State Zip

Contact person: _____ Telephone: (___) _____

_____
E-Mail address (if available)

11. Cities, towns and areas to be served: Orange County and surrounding communities

12. Population to be served:

Current: 1,865,450 Five-Year Projection: 2,069,163

13. Date site will be ready to be inspected for completion: 2011

14. Expected life of the facility: 8.9 years

15. Estimated costs:

Total Construction: $_____ Closing Costs: $5,015,066.15

16. Anticipated construction starting and completion dates:

From: 2008 (landfilling begins) To: 2017 (landfill closure)

17. Expected volume or weight of waste to be received:

_____ yds^3/day 2,500 tons/day _____ gallons/day

B. DISPOSAL FACILITY GENERAL INFORMATION

1. Provide brief description of disposal facility design and operations planned under this application:

This application is prepared to renew the existing construction and operation permits at the Keene Road South Class III Landfill. Please refer to the Engineering Report for more details of the permit renewal application.

2. Facility site supervisor: Bob Oliver

Title: District Manager Telephone: (407) 886-2920

boliver@wm.com
E-Mail address (if available)

3. Disposal area: Total 102 acres; Used 0 acres; Available 102 acres.

4. Weighing scales used: [x] Yes [ ] No

5. Security to prevent unauthorized use: [x] Yes [ ] No

6. Charge for waste received: _____ $/yds^3 18.50 $/ton

7. Surrounding land use, zoning:

[ ] Residential	[ ] Industrial
[x] Agricultural	[ ] None
[ ] Commercial	[ ] Other Describe: _____

8. Types of waste received:

[ ] Residential	[x] C & D debris
[x] Commercial	[x] Shredded/cut tires
[ ] Incinerator/WTE ash	[x] Yard trash
[ ] Treated biomedical	[ ] Septic tank
[ ] Water treatment sludge	[x] Industrial
[ ] Air treatment sludge	[ ] Industrial sludge
[ ] Agricultural	[ ] Domestic sludge
[x] Asbestos	
[ ] Other Describe: _____	

9. Salvaging permitted: [ ] Yes [x] No

10. Attendant: [x] Yes [ ] No Trained operator: [x] Yes [ ] No

11. Spotters: Yes [x] No [ ] Number of spotters used: 2

12. Site located in: [ ] Floodplain [ ] Wetlands [x] Other Upland

13. Property recorded as a Disposal Site in County Land Records: [ ] Yes [x] No

14. Days of operation: Monday - Saturday

15. Hours of operation: M-F 7:00 a.m. - 6:00 p.m.; Saturday 8:00 a.m. - 5:00 p.m.

16. Days Working Face covered: Weekly

17. Elevation of water table: varies Ft. (NGVD 1929)

18. Number of monitoring wells: 50

19. Number of surface monitoring points: 0

20. Gas controls used: [ ] Yes [x] No Type controls: [ ] Active [ ] Passive

Gas flaring: [ ] Yes [x] No Gas recovery: [ ] Yes [x] No

21. Landfill unit liner type:

[x] Natural soils
[ ] Single clay liner
[x] Single geomembrane
[ ] Single composite
[ ] Slurry wall
[ ] Double geomembrane
[ ] Geomembrane & composite
[ ] Double composite
[ ] None
[x] Other Describe: Liner on select slopes - See Engineering Report, Section 9(4)

22. Leachate collection method:

[ ] Collection pipes
[ ] Geonets
[ ] Well points
[ ] Perimeter ditch
[ ] Other Describe:
[ ] Sand layer
[ ] Gravel layer
[ ] Interceptor trench
[x] None

23. Leachate storage method: (N/A)

[ ] Tanks
[ ] Surface impoundments
[ ] Other Describe:

24. Leachate treatment method:

[ ] Oxidation
[ ] Secondary
[ ] Advanced
[x] None
[ ] Other
[ ] Chemical treatment
[ ] Settling

25. Leachate disposal method: (N/A)

[ ] Recirculated
[ ] Transported to WWTP
[ ] Injection well
[ ] Evaporation
[ ] Other _____
[ ] Pumped to WWTP
[ ] Discharged to surface water
[ ] Percolation ponds

26. For leachate discharged to surface waters:

Name and Class of receiving water: N/A

27. Storm Water:

Collected: [x] Yes [ ] No

Type of treatment: Dry Retention

Name and Class of receiving water: N/A

28. Environmental Resources Permit (ERP) number or status: ERP48-0187635-001-EI

C. **NON-DISPOSAL FACILITY GENERAL INFORMATION ---- N/A**

1. Provide brief description of the non-disposal facility design and operations planned under this application:

_____

_____

_____

_____

2. Facility site supervisor: _____

Title: _____ Telephone: (___) _____

_____
E-Mail address (if available)

3. Site area: Facility _____ acres; Property _____ acres

4. Security to prevent unauthorized use: [ ] Yes [ ] No

5. Site located in: [ ] Floodplain [ ] Wetlands [ ] Other _____

6. Days of operation: _____

7. Hours of operation: _____

8. Number of operating staff: _____

9. Expected useful life: _____ Years

10. Weighing scales used: [ ] Yes [ ] No

11. Normal processing rate: _____ yd^3/day _____ tons/day _____ gal/day

12. Maximum processing rate: _____ yd^3/day _____ tons/day _____ gal/day

13. Charge for waste received: _____

14. Storm Water Collected: [ ] Yes [ ] No

Type of treatment: _____

Name and Class of receiving water: _____

15. Environmental Resources Permit (ERP) number or status: _____

_____

16. Final residue produced:

_____ % of normal processing rate _____ % of maximum processing rate

_____ Tons/day _____ Tons/day

Disposed of at:

Facility name: _____ County: _____

17. Estimated operating costs: $ _____

Total cost/ton: $ _____ Net cost/ton: $_____

18. Provide a site plan, at a scale not greater than 200 feet to the inch, which shows the facility location and identifies the proposed waste and final residue storage areas, total acreage of the site, and any other features which are relevant to the prohibitions or location restrictions in Rule 62-701.300, FAC, such as water bodies or wetlands on or within 200 feet of the site, and potable water wells on or within 500 feet of the site.

19. Provide a description of how the waste and final residue will be managed to not be expected to cause violations of the Department's ground water, surface water or air standards or criteria

20. Provide an estimate of the maximum amount of waste and final residue that will be store on-site.

21. Provide a detailed description of the technology use at the facility and the functions of all processing equipment that will be utilized. The descriptions shall explain the flow of waste and residue through all the proposed unit operations and shall include: (1) regular facility operations as they are expected to occur; (2) procedures for start up operations, and scheduled and unscheduled shut down operations; (3) potential safety hazards and control methods, including fire detection and control; (4) a description of any expected air emissions and wastewater discharges from the facility which may be potential pollution sources; (5) a description and usage rate of any chemical or biological additives that will be used in the process; and (6) process flow diagrams for the facility operations.

22. Provide a description of the loading, unloading and processing areas.

23. Provide a description of the leachate control system that will be used to prevent discharge of leachate to the environment and mixing of leachate with stormwater. Note: Ground water monitoring may be required for the facility depending on the method of leachate control used.

24. Provide an operation plan for the facility which includes: (1) a description of general facility operations, the number of personnel responsible for the operations including their respective job descriptions, and the types of equipment that will be used at the facility; (2) procedures to ensure any unauthorized wastes received at the site will be properly managed; (3) a contingency plan to cover operation interruptions and emergencies such as fires, explosions, or natural disasters; (4) procedures to ensure operational records needed for the facility will be adequately prepared and maintained; and (5) procedures to ensure that the wastes and final residue will be managed to not be expected to cause pollution.

25. Provide a closure plan that describes the procedures that will be implemented when the facility closes including: (1) estimated time to complete closure; (2) procedures for removing and properly managing or disposing of all wastes and final residues; (3) notification of the Department upon ceasing operations and completion of final closure.

D. **PROHIBITIONS** (62-701.300, FAC)

S	LOCATION	N/A	N/C		
x	Section 4(2)			1.	Provide documentation that each of the siting criteria will be satisfied for the facility; (62-701.300(2), FAC)
		x		2.	If the facility qualifies for any of the exemptions contained in Rules 62-701.300(12) through (16), FAC, then document this qualification(s).
x	Section 4(3)			3.	Provide documentation that the facility will be in compliance with the burning restrictions; (62-701.300(3), FAC)
x	Section 4(4)			4.	Provide documentation that the facility will be in compliance with the hazardous waste restrictions; (62-701.300(4), FAC)
x	Section 4(5)			5.	Provide documentation that the facility will be in compliance with the PCB disposal restrictions; (62-701.300(5), FAC)
x	Section 4(6)			6.	Provide documentation that the facility will be in compliance with the biomedical waste restrictions; (62-701.300(6), FAC)
x	Section 4(7)			7.	Provide documentation that the facility will be in compliance with the Class I surface water restrictions; (62-701.300(7), FAC)
x	Section 4(8)			8.	Provide documentation that the facility will be in compliance with the special waste for landfills restrictions; (62-701.300(8), FAC)
		x		9.	Provide documentation that the facility will be in compliance with the special waste for waste-to-energy facilities restrictions; (62-701.300(9), FAC)
x	Section 4(10)			10.	Provide documentation that the facility will be in compliance with the liquid restrictions; (62-701.300(10), FAC)
x	Section 4(11)			11.	Provide documentation that the facility will be in compliance with the used oil restrictions; (62-701.300(11), FAC)

E. SOLID WASTE MANAGEMENT FACILITY PERMIT REQUIREMENTS, GENERAL (62-701.320, FAC)

S	LOCATION	N/A	N/C		
x				1.	Four copies, at minimum, of the completed application form, all supporting data and reports; (62-701.320(5)(a),FAC)
x	Herein			2.	Engineering and/or professional certification (signature, date and seal) provided on the applications and all engineering plans, reports and supporting information for the application; (62-701.320(6),FAC)
x	Herein			3.	A letter of transmittal to the Department; (62-701.320(7)(a),FAC)
x	Herein			4.	A completed application form dated and signed by the applicant; (62-701.320(7)(b),FAC)
x	Herein			5.	Permit fee specified in Rule 62-701.315, FAC in check or money order, payable to the Department; (62-701.320(7)(c),FAC)
x	Herein			6.	An engineering report addressing the requirements of this rule and with the following format: a cover sheet, text printed on 8 1/2 inch by 11 inch consecutively numbered pages, a table of contents or index, the body of the report and all appendices including an operation plan, contingency plan, illustrative charts and graphs, records or logs of tests and investigations, engineering calculations; (62-701.320(7)(d),FAC)
x	App. D and Sec. 17			7.	Operation Plan and Closure Plan; (62-701.320(7)(e)1,FAC)
x	Appendix D Sec. 3.0			8.	Contingency Plan; (62-701.320(7)(e)2,FAC)
x	Appendix B			9.	Plans or drawings for the solid waste management facilities in appropriate format (including sheet size restrictions, cover sheet, legends, north arrow, horizontal and vertical scales, elevations referenced to NGVD 1929) showing; (62-702.320(7)(f),FAC)
x	Appendix B, Sheet 1				a. A regional map or plan with the project location;
x	Appendix B, Sheet 1				b. A vicinity map or aerial photograph no more than 1 year old;
			x		c. A site plan showing all property boundaries certified by a registered Florida land surveyor;

S	LOCATION	N/A	N/C		PART E CONTINUED
___	_____	___	x		d. Other necessary details to support the engineering report.
___	_____	___	X	10.	Documentation that the applicant either owns the property or has legal authority from the property owner to use the site; (62-701.320(7)(g),FAC)
___	_____	x	___	11.	For facilities owned or operated by a county, provide a description of how, if any, the facilities covered in this application will contribute to the county's achievement of the waste reduction and recycling goals contained in Section 403.706,FS; (62-701.320(7)(h),FAC)
x	Section 7(1)(i)			12.	Provide a history and description of any enforcement actions taken by the Department against the applicant for violations of applicable statutes, rules, orders or permit conditions relating to the operation of any solid waste management facility in this state; (62-701.320(7)(i),FAC)
___	_____	x	___	13.	Proof of publication in a newspaper of general circulation of notice of application for a permit to construct or substantially modify a solid waste management facility; (62-702.320(8),FAC)
x	Section 7(3)	___	___	14.	Provide a description of how the requirements for airport safety will be achieved including proof of required notices if applicable. If exempt, explain how the exemption applies; (62-701.320(13),FAC)
x	Section 7(4)	___	___	15.	Explain how the operator training requirements will be satisfied for the facility; (62-701.320(15), FAC)

F. LANDFILL PERMIT REQUIREMENTS (62-701.330, FAC)

S	LOCATION	N/A	N/C		
x	App. B, Dwg. 10			1.	Vicinity map or aerial photograph no more than 1 year old and of appropriate scale showing land use and local zoning within one mile of the landfill and of sufficient scale to show all homes or other structures, water bodies, and roads other significant features of the vicinity. All significant features shall be labeled; (62-701.330(3)(a),FAC)
x	App. B, Dwg. 2			2.	Vicinity map or aerial photograph no more than 1 year old showing all airports that are located within five miles of the proposed landfill; (62-701.330(3)(b),FAC)
x	Appendix B			3.	Plot plan with a scale not greater than 200 feet to the inch showing; (62-701.330(3)(c),FAC)
x	App. B, Dwg. 4				a. Dimensions;
x	App. B, Dwg. 4				b. Locations of proposed and existing water quality monitoring wells;
			x		c. Locations of soil borings;
x	App. B, Dwg. 5				d. Proposed plan of trenching or disposal areas;
x	App. B, Dwg. 9				e. Cross sections showing original elevations and proposed final contours which shall be included either on the plot plan or on separate sheets;
		x			f. Any previously filled waste disposal areas;
x	App. B, Dwg. 4				g. Fencing or other measures to restrict access.
x	Appendix B			4.	Topographic maps with a scale not greater than 200 feet to the inch with 5-foot contour intervals showing; (62-701.330(3)(d),FAC):
x	App. B, Dwg. 4				a. Proposed fill areas;
x	Section 13(7)(e)				b. Borrow areas;
x	App. B, Dwg. 4				c. Access roads;
x	App. B, Dwg. 8				d. Grades required for proper drainage;
x	App. B, Dwg. 9				e. Cross sections of lifts;

S	LOCATION	N/A	N/C		PART F CONTINUED
___	_____	___	x		f. Special drainage devices if necessary;
x	App. B, Dwg. 4	___	___		g. Fencing;
x	App. B, Dwg. 4	___	___		h. Equipment facilities.
x	Engineering Report	___	___	5.	A report on the landfill describing the following; (62-701.330(3)(e),FAC)
x	Section 8(e)	___	___		a. The current and projected population and area to be served by the proposed site;
x	Section 8(e)	___	___		b. The anticipated type, annual quantity, and source of solid waste, expressed in tons;
x	Section 8(e)	___	___		c. The anticipated facility life;
x	Section 13(7)(e)	___	___		d. The source and type of cover material used for the landfill.
___	_____	___	X	6.	Provide evidence that an approved laboratory shall conduct water quality monitoring for the facility in accordance with Chapter 62-160,FAC; (62-701.330(3)(h),FAC)
x	Section 20	___	___	7.	Provide a statement of how the applicant will demonstrate financial responsibility for the closing and long-term care of the landfill; (62-701.330(3)(i),FAC)

G. GENERAL CRITERIA FOR LANDFILLS (62-701.340,FAC)

___	_____	___	X	1.	Describe (and show on a Federal Insurance Administration flood map, if available) how the landfill or solid waste disposal unit shall not be located in the 100-year floodplain where it will restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain unless compensating storage is provided, or result in a washout of solid waste; (62-701.340(4)(b),FAC)
x	Section 9(4)	___	___	2.	Describe how the minimum horizontal separation between waste deposits in the landfill and the landfill property boundary shall be 100 feet, measured from the toe of the proposed final cover slope; (62-701.340(4)(c),FAC)
x	Section 9(4)	___	___	3.	Describe what methods shall be taken to screen the landfill from public view where such screening can practically be provided; (62-701.340(4)(d),FAC)

H. LANDFILL CONSTRUCTION REQUIREMENTS (62-701.400,FAC)

S	LOCATION	N/A	N/C		
x	Section 10(2)	___	___	1.	Describe how the landfill shall be designed so that solid waste disposal units will be constructed and closed at planned intervals throughout the design period of the landfill; (62-701.400(2),FAC)
x	Section 10(3)	___	___	2.	Landfill liner requirements; (62-701.400(3),FAC)
				a.	General construction requirements; (62-701.400(3)(a),FAC):
x	Section 10(3)	___	___	(1)	Provide test information and documentation to ensure the liner will be constructed of materials that have appropriate physical, chemical, and mechanical properties to prevent failure;
___	_____	___	x	(2)	Document foundation is adequate to prevent liner failure;
___	_____	___	x	(3)	Constructed so bottom liner will not be adversely impacted by fluctuations of the ground water;
___	_____	___	x	(4)	Designed to resist hydrostatic uplift if bottom liner located below seasonal high ground water table;
___	_____	x	___	(5)	Installed to cover all surrounding earth which could come into contact with the waste or leachate.
				b.	Composite liners; (62-701.400(3)(b),FAC)
___	_____	x	___	(1)	Upper geomembrane thickness and properties;
___	_____	x	___	(2)	Design leachate head for primary LCRS including leachate recirculation if appropriate;
___	_____	x	___	(3)	Design thickness in accordance with Table A and number of lifts planned for lower soil component.

S	LOCATION	N/A	N/C	PART H CONTINUED
				c. Double liners; (62-701.400(3)(c),FAC)
___	_____	x	___	(1) Upper and lower geomembrane thicknesses and properties;
___	_____	x	___	(2) Design leachate head for primary LCRS to limit the head to one foot above the liner;
___	_____	x	___	(3) Lower geomembrane sub-base design;
___	_____	x	___	(4) Leak detection and secondary leachate collection system minimum design criteria ($k \geq 10$ cm/sec, head on lower liner ≤ 1 inch, head not to exceed thickness of drainage layer);
				d. Standards for geosynthetic components; (62-701.400(3)(d),FAC)
___	_____	x	___	(1) Field seam test methods to ensure all field seams are at least 90 percent of the yield strength for the lining material;
___	_____	x	___	(2) Geomembranes to be used shall pass a continuous spark test by the manufacturer;
___	_____	x	___	(3) Design of 24-inch-thick protective layer above upper geomembrane liner;
___	_____	x	___	(4) Describe operational plans to protect the liner and leachate collection system when placing the first layer of waste above 24-inch-thick protective layer.
___	_____	x	___	(5) HDPE geomembranes, if used, meet the specifications in GRI GM13;
___	_____	x	___	(6) PVC geomembranes, if used, meet the specifications in PGI 1197;
___	_____	x	___	(7) Interface shear strength testing results of the actual components which will be used in the liner system;
___	_____	x	___	(8) Transmissivity testing results of geonets if they are used in the liner system;
___	_____	x	___	(9) Hydraulic conductivity testing results of geosynthetic clay liners if they are used in the liner system;

S	LOCATION	N/A	N/C	PART H CONTINUED
				e. Geosynthetic specification requirements; (62-701.400(3)(e),FAC)
___	_____	x	___	(1) Definition and qualifications of the designer, manufacturer, installer, QA consultant and laboratory, and QA program;
___	_____	x	___	(2) Material specifications for geomembranes, geocomposites, geotextiles, geogrids, and geonets;
___	_____	x	___	(3) Manufacturing and fabrication specifications including geomembrane raw material and roll QA, fabrication personnel qualifications, seaming equipment and procedures, overlaps, trial seams, destructive and nondestructive seam testing, seam testing location, frequency, procedure, sample size and geomembrane repairs;
___	_____	x	___	(4) Geomembrane installation specifications including earthwork, conformance testing, geomembrane placement, installation personnel qualifications, field seaming and testing, overlapping and repairs, materials in contact with geomembrane and procedures for lining system acceptance;
___	_____	x	___	(5) Geotextile and geogrid specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil materials and any overlying materials;
___	_____	x	___	(6) Geonet and geocomposite specifications including handling and placement, conformance testing, stacking and joining, repair, and placement of soil materials and any overlying materials;
___	_____	x	___	(7) Geosynthetic clay liner specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil material and any overlying materials;
				f. Standards for soil components (62-710.400(3)(f),FAC):
___	_____	x	___	(1) Description of construction procedures including overexcavation and backfilling to preclude structural inconsistencies and procedures for placing and compacting soil component in layers;

S	LOCATION	N/A	N/C	
				PART H CONTINUED
___	_____	x	___	(2) Demonstration of compatibility of the soil component with actual or simulated leachate in accordance with EPA Test Method 9100 or an equivalent test method;
___	_____	x	___	(3) Procedures for testing in-situ soils to demonstrate they meet the specifications for soil liners;
				(4) Specifications for soil component of liner including at a minimum:
___	_____	x	___	(a) Allowable particle size distribution, Atterberg limits, shrinkage limit;
___	_____	x	___	(b) Placement moisture and dry density criteria;
___	_____	x	___	(c) Maximum laboratory-determined saturated hydraulic conductivity using simulated leachate;
___	_____	x	___	(d) Minimum thickness of soil liner;
___	_____	x	___	(e) Lift thickness;
___	_____	x	___	(f) Surface preparation (scarification);
___	_____	x	___	(g) Type and percentage of clay mineral within the soil component;
___	_____	x	___	(5) Procedures for constructing and using a field test section to document the desired saturated hydraulic conductivity and thickness can be achieved in the field.
___	_____	x	___	3. Leachate collection and removal system (LCRS); (62-701.400(4),FAC)
				a. The primary and secondary LCRS requirements; (62-701.400(4)(a),FAC)
___	_____	x	___	(1) Constructed of materials chemically resistant to the waste and leachate;
___	_____	x	___	(2) Have sufficient mechanical properties to prevent collapse under pressure;
___	_____	x	___	(3) Have granular material or synthetic geotextile to prevent clogging;
___	_____	x	___	(4) Have method for testing and cleaning clogged pipes or contingent designs for rerouting leachate around failed areas;

S	LOCATION	N/A	N/C	PART H CONTINUED
				b. Primary LCRS requirements; (62-701.400(4)(b),FAC)
___	_____	x	___	(1) Bottom 12 inches having hydraulic conductivity $\geq 1 \times 10^{-3}$ cm/sec;
___	_____	x	___	(2) Total thickness of 24 inches of material chemically resistant to the waste and leachate;
___	_____	x	___	(3) Bottom slope design to accomodate for predicted settlement;
___	_____	x	___	(4) Demonstration that synthetic drainage material, if used, is equivalent or better than granular material in chemical compatibility, flow under load and protection of geomembrane liner.
___	_____	x	___	4. Leachate recirculation; (62-701.400(5),FAC)
___	_____	x	___	a. Describe general procedures for recirculating leachate;
___	_____	x	___	b. Describe procedures for controlling leachate runoff and minimizing mixing of leachate runoff with storm water;
___	_____	x	___	c. Describe procedures for preventing perched water conditions and gas buildup;
___	_____	x	___	d. Describe alternate methods for leachate management when it cannot be recirculated due to weather or runoff conditions, surface seeps, wind-blown spray, or elevated levels of leachate head on the liner;
___	_____	x	___	e. Describe methods of gas management in accordance with Rule 62-701.530, FAC;
___	_____	x	___	f. If leachate irrigation is proposed, describe treatment methods and standards for leachate treatment prior to irrigation over final cover and provide documentation that irrigation does not contribute significantly to leachate generation.

S	LOCATION	N/A	N/C	PART H CONTINUED
___	_____	x	___	5. Leachate storage tanks and leachate surface impoundments; (62-701.400(6),FAC)
				a. Surface impoundment requirements; (62-701.400(6)(b),FAC)
___	_____	x	___	(1) Documentation that the design of the bottom liner will not be adversely impacted by fluctuations of the ground water;
___	_____	x	___	(2) Designed in segments to allow for inspection and repair as needed without interruption of service;
				(3) General design requirements;
___	_____	x	___	(a) Double liner system consisting of an upper and lower 60-mil minimum thickness geomembrane;
___	_____	x	___	(b) Leak detection and collection system with hydraulic conductivity $\geq$ 1 cm/sec;
___	_____	x	___	(c) Lower geomembrane placed on subbase $\geq$ 6 inches thick with k $\leq$ $1x10^{-5}$ cm/sec or on an approved geosynthetic clay liner with k $\leq$ $1x10^{-7}$ cm/sec;
___	_____	x	___	(d) Design calculation to predict potential leakage through the upper liner;
___	_____	x	___	(e) Daily inspection requirements and notification and corrective action requirements if leakage rates exceed that predicted by design calculations;
___	_____	x	___	(4) Description of procedures to prevent uplift, if applicable;
___	_____	x	___	(5) Design calculations to demonstrate minimum two feet of freeboard will be maintained;
___	_____	x	___	(6) Procedures for controlling disease vectors and off-site odors.

S	LOCATION	N/A	N/C	PART H CONTINUED
				b. Above-ground leachate storage tanks; (62-701.400(6)(c),FAC)
___	_____	x	___	(1) Describe tank materials of construction and ensure foundation is sufficient to support tank;
___	_____	x	___	(2) Describe procedures for cathodic protection if needed for the tank;
___	_____	x	___	(3) Describe exterior painting and interior lining of the tank to protect it from the weather and the leachate stored;
___	_____	x	___	(4) Describe secondary containment design to ensure adequate capacity will be provided and compatibility of materials of construction;
___	_____	x	___	(5) Describe design to remove and dispose of stormwater from the secondary containment system;
___	_____	x	___	(6) Describe an overfill prevention system such as level sensors, gauges, alarms and shutoff controls to prevent overfilling;
				(7) Inspections, corrective action and reporting requirements;
___	_____	x	___	(a) Overfill prevention system weekly;
___	_____	x	___	(b) Exposed tank exteriors weekly;
___	_____	x	___	(c) Tank interiors when tank is drained or at least every three years;
___	_____	x	___	(d) Procedures for immediate corrective action if failures detected;
___	_____	x	___	(e) Inspection reports available for department review.
				c. Underground leachate storage tanks; (62-701.400(6)(d),FAC)
___	_____	x	___	(1) Describe materials of construction;
___	_____	x	___	(2) A double-walled tank design system to be used with the following requirements;

S	LOCATION	N/A	N/C	PART H CONTINUED
___	_____	x	___	(a) Interstitial space monitoring at least weekly;
___	_____	x	___	(b) Corrosion protection provided for primary tank interior and external surface of outer shell;
___	_____	x	___	(c) Interior tank coatings compatible with stored leachate;
___	_____	x	___	(d) Cathodic protection inspected weekly and repaired as needed;
___	_____	x	___	(3) Describe an overfill prevention system such as level sensors, gauges, alarms and shutoff controls to prevent overfilling and provide for weekly inspections;
___	_____	x	___	(4) Inspection reports available for department review.
___	_____	x	___	d. Schedule provided for routine maintenance of LCRS; (62-701.400(6)(e),FAC)
				6. Liner systems construction quality assurance (CQA); (62-701.400(7),FAC)
___	_____	x	___	a. Provide CQA Plan including:
___	_____	x	___	(1) Specifications and construction requirements for liner system;
___	_____	x	___	(2) Detailed description of quality control testing procedures and frequencies;
___	_____	x	___	(3) Identification of supervising professional engineer;
___	_____	x	___	(4) Identify responsibility and authority of all appropriate organizations and key personnel involved in the construction project;
___	_____	x	___	(5) State qualifications of CQA professional engineer and support personnel;
___	_____	x	___	(6) Description of CQA reporting forms and documents;

S	LOCATION	N/A	N/C	PART H CONTINUED
___	_____	x	___	b. An independent laboratory experienced in the testing of geosynthetics to perform required testing;
				7. Soil Liner CQA (62-701.400(8)FAC)
___	_____	x	___	a. Documentation that an adequate borrow source has been located with test results or description of the field exploration and laboratory testing program to define a suitable borrow source;
___	_____	x	___	b. Description of field test section construction and test methods to be implemented prior to liner installation;
___	_____	x	___	c. Description of field test methods including rejection criteria and corrective measures to insure proper liner installation.
				8. Surface water management systems; (62-701.400(9),FAC)
___	_____	___	x	a. Provide a copy of a Department permit for stormwater control or documentation that no such permit is required;
___	_____	___	x	b. Design of surface water management system to isolate surface water from waste filled areas and to control stormwater run-off;
___	_____	___	x	c. Details of stormwater control design including retention ponds, detention ponds, and drainage ways;
				9. Gas control systems; (62-701.400(10),FAC)
x	Section 10(10)	___	___	a. Provide documentation that if the landfill is receiving degradable wastes, it will have a gas control system complying with the requirements of Rule 62-701.530, FAC;
___	_____	x	___	10. For landfills designed in ground water, provide documentation that the landfill will provide a degree of protection equivalent to landfills designed with bottom liners not in contact with ground water; (62-701.400(11),FAC)

I. HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS (62-701.410(1), FAC)

S	LOCATION	N/A	N/C		
				1.	Submit a hydrogeological investigation and site report including at least the following information:
___	_____	___	x		a. Regional and site specific geology and hydrogeology;
___	_____	___	x		b. Direction and rate of ground water and surface water flow including seasonal variations;
___	_____	___	x		c. Background quality of ground water and surface water;
___	_____	___	x		d. Any on-site hydraulic connections between aquifers;
___	_____	___	x		e. Site stratigraphy and aquifer characteristics for confining layers, semi-confining layers, and all aquifers below the landfill site that may be affected by the landfill;
___	_____	___	x		f. Description of topography, soil types and surface water drainage systems;
___	_____	___	x		g. Inventory of all public and private water wells within a one-mile radius of the landfill including, where available, well top of casing and bottom elevations, name of owner, age and usage of each well, stratigraphic unit screened, well construction technique and static water level;
___	_____	___	x		h. Identify and locate any existing contaminated areas on the site;
___	_____	___	x		i. Include a map showing the locations of all potable wells within 500 feet, and all community water supply wells within 1000 feet, of the waste storage and disposal areas;
___	_____	___	x	2.	Report signed, sealed and dated by PE or PG.

J. GEOTECHNICAL INVESTIGATION REQUIREMENTS (62-701.410(2),FAC)

S	LOCATION	N/A	N/C		
				1.	Submit a geotechnical site investigation report defining the engineering properties of the site including at least the following:
___	_____	___	x		a. Description of subsurface conditions including soil stratigraphy and ground water table conditions;
___	_____	___	x		b. Investigate for the presence of muck, previously filled areas, soft ground, lineaments and sink holes;
___	_____	___	x		c. Estimates of average and maximum high water table across the site;
					d. Foundation analysis including:
___	_____	___	x		(1) Foundation bearing capacity analysis;
___	_____	___	x		(2) Total and differential subgrade settlement analysis;
___	_____	___	x		(3) Slope stability analysis;
___	_____	___	x		e. Description of methods used in the investigation and includes soil boring logs, laboratory results, analytical calculations, cross sections, interpretations and conclusions;
___	_____	___	x		f. An evaluation of fault areas, seismic impact zones, and unstable areas as described in 40 CFR 258.13, 40 CFR 258.14 and 40 CFR 258.15.
___	_____	___	x	2.	Report signed, sealed and dated by PE or PG.

K. VERTICAL EXPANSION OF LANDFILLS (62-701.430,FAC)

S	LOCATION	N/A	N/C		
___	_____	x	___	1.	Describe how the vertical expansion shall not cause or contribute to leachate leakage from the existing landfill or adversely affect the closure design of the existing landfill;
___	_____	x	___	2.	Describe how the vertical expansion over unlined landfills will meet the requirements of Rule 62-701.400, FAC with the exceptions of Rule 62-701.430(1)(c),FAC;
___	_____	x	___	3.	Provide foundation and settlement analysis for the vertical expansion;
___	_____	x	___	4.	Provide total settlement calculations demonstrating that the final elevations of the lining system, that gravity drainage, and that no other component of the design will be adversely affected;
___	_____	x	___	5.	Minimum stability safety factor of 1.5 for the lining system component interface stability and deep stability;
___	_____	x	___	6.	Provide documentation to show the surface water management system will not be adversely affected by the vertical expansion;
___	_____	x	___	7.	Provide gas control designs to prevent accumulation of gas under the new liner for the vertical expansion.

L. LANDFILL OPERATION REQUIREMENTS (62-701.500,FAC)

S	LOCATION	N/A	N/C		
x	Section 13(1)			1.	Provide documentation that landfill will have at least one trained operator during operation and at least one trained spotter at each working face; (62-701.500(1),FAC)
				2.	Provide a landfill operation plan including procedures for: (62-701.500(2), FAC)
x	App. D, Sec. 2.0			a.	Designating responsible operating and maintenance personnel;
x	App. D, Sec. 3.0			b.	Contingency operations for emergencies;
x	App. D, Sec. 4.0			c.	Controlling types of waste received at the landfill;
x	App. D, Sec. 5.0			d.	Weighing incoming waste;
x	App. D, Sec. 6.0			e.	Vehicle traffic control and unloading;
x	App. D, Sec. 7.0			f.	Method and sequence of filling waste;
x	App. D, Sec. 8.0			g.	Waste compaction and application of cover;
x	App. D, Sec. 10 and 12			h.	Operations of gas, leachate, and stormwater controls;
x	App. D, Sec. 9.0			i.	Water quality monitoring.
		x		j.	Maintaining and cleaning the leachate collection system;
x	App. D, Sec. 13.0			3.	Provide a description of the landfill operation record to be used at the landfill; details as to location of where various operational records will be kept (i.e. FDEP permit, engineering drawings, water quality records, etc.) (62-701.500(3),FAC)
x	App. D, Sec. 13.0			4.	Describe the waste records that will be compiled monthly and provided to the Department quarterly; (62-701.500(4),FAC)
x	App. D, Sec. 6.1			5.	Describe methods of access control; (62-701.500(5),FAC)
x	App. D, Sec. 4.1			6.	Describe load checking program to be implemented at the landfill to discourage disposal of unauthorized wastes at the landfill; (62-701.500(6),FAC)
				7.	Describe procedures for spreading and compacting waste at the landfill that include: (62-701.500(7),FAC)
x	App. D, Sec. 7.0			a.	Waste layer thickness and compaction frequencies;

S	LOCATION	N/A	N/C		PART L CONTINUED
x	Section 10(3)			b.	Special considerations for first layer of waste placed above liner and leachate collection system;
x	App. D, Sec. 7.0			c.	Slopes of cell working face and side grades above land surface, planned lift depths during operation;
x	Section 13(7)(d)			d.	Maximum width of working face;
				e.	Description of type of initial cover to be used at the facility that controls:
x	App. D, Sec. 8.2				(1) Disease vector breeding/animal attraction
x	App. D, Sec. 8.2				(2) Fires
x	App. D, Sec. 8.2				(3) Odors
x	App. D, Sec. 8.2				(4) Blowing litter
x	App. D, Sec. 8.2				(5) Moisture infiltration
x	App. D, Sec. 8.2			f.	Procedures for applying initial cover including minimum cover frequencies;
x	App. D, Sec. 8.2			g.	Procedures for applying intermediate cover;
x	App. D, Sec. 8.2			h.	Time frames for applying final cover;
x	App. D, Sec. 8.3			i.	Procedures for controlling scavenging and salvaging.
x	App. D, Sec. 8.4			j.	Description of litter policing methods;
x	App. D, Sec. 8.2			k.	Erosion control procedures.
				8.	Describe operational procedures for leachate management including; (62-701.500(8),FAC)
		x		a.	Leachate level monitoring, sampling, analysis and data results submitted to the Department;
		x		b.	Operation and maintenance of leachate collection and removal system, and treatment as required;
		x		c.	Procedures for managing leachate if it becomes regulated as a hazardous waste;
		x		d.	Agreements for off-site discharge and treatment of leachate;
		x		e.	Contingency plan for managing leachate during emergencies or equipment problems;

S	LOCATION	N/A	N/C	PART L CONTINUED
___	_____	x	___	f. Procedures for recording quantities of leachate generated in gal/day and including this in the operating record;
___	_____	x	___	g. Procedures for comparing precipitation experienced at the landfill with leachate generation rates and including this information in the operating record;
___	_____	x	___	h. Procedures for water pressure cleaning or video inspecting leachate collection systems.
x	Section 16	___	___	9. Describe how the landfill receiving degradable wastes shall implement a gas management system meeting the requirements of Rule 62-701.530, FAC; (62-701.500(9),FAC)
x	Section 13(10)	___	___	10. Describe procedures for operating and maintaining the landfill stormwater management system to comply with the requirements of Rule 62-701.400(9); (62-701.500(10),FAC)
				11. Equipment and operation feature requirements; (62-701.500(11),FAC)
x	App. D, Sec. 14.0	___		a. Sufficient equipment for excavating, spreading, compacting and covering waste;
x	App. D, Sec. 14.0	___		b. Reserve equipment or arrangements to obtain additional equipment within 24 hours of breakdown;
x	App. D, Sec. 14.4	___		c. Communications equipment;
x	App. D, Sec. 14.6	___		d. Dust control methods;
x	App. D, Sec. 3.2	___		e. Fire protection capabilities and procedures for notifying local fire department authorities in emergencies;
x	App. D, Sec. 8.4	___		f. Litter control devices;
x	App. D, Sec. 6.1	___		g. Signs indicating operating authority, traffic flow, hours of operation, disposal restrictions.
x	App. D, Sec. 6.1	___	___	12. Provide a description of all-weather access road, inside perimeter road and other roads necessary for access which shall be provided at the landfill; (62-701.500(12),FAC)
				13. Additional record keeping and reporting requirements; (62-701.500(13),FAC)

S	LOCATION	N/A	N/C	PART L CONTINUED
x	Section 13(13)			a. Records used for developing permit applications and supplemental information maintained for the design period of the landfill;
x	Section 13(13)			b. Monitoring information, calibration and maintenance records, copies of reports required by permit maintained for at least 10 years;
x	Section 13(13)			c. Maintain annual estimates of the remaining life of constructed landfills and of other permitted areas not yet constructed and submit this estimate annually to the Department;
x	Section 13(13)			d. Procedures for archiving and retrieving records which are more than five year old.

M. **WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS** (62-701.510, FAC)

S	LOCATION	N/A	N/C		
___	_____	___	X	1.	Water quality and leachate monitoring plan shall be submitted describing the proposed ground water, surface water and leachate monitoring systems and shall meet at least the following requirements;
___	_____	___	X		a. Based on the information obtained in the hydrogeological investigation and signed, dated and sealed by the PG or PE who prepared it; (62-701.510(2)(a),FAC)
___	_____	___	X		b. All sampling and analysis preformed in accordance with Chapter 62-160, FAC; (62-701.510(2)(b),FAC)
					c. Ground water monitoring requirements; (62-701.510(3),FAC)
___	_____	___	x		(1) Detection wells located downgradient from and within 50 feet of disposal units;
___	_____	___	x		(2) Downgradient compliance wells as required;
___	_____	___	x		(3) Background wells screened in all aquifers below the landfill that may be affected by the landfill;
___	_____	___	x		(4) Location information for each monitoring well;
___	_____	___	x		(5) Well spacing no greater than 500 feet apart for downgradient wells and no greater than 1500 feet apart for upgradient wells unless site specific conditions justify alternate well spacings;
___	_____	___	x		(6) Well screen locations properly selected;
___	_____	___	x		(7) Procedures for properly abandoning monitoring wells;
___	_____	___	x		(8) Detailed description of detection sensors if proposed.

S	LOCATION	N/A	N/C	
				PART M CONTINUED
				d. Surface water monitoring requirements; (62-701.510(4),FAC)
___	_____	x	___	(1) Location of and justification for all proposed surface water monitoring points;
___	_____	x	___	(2) Each monitoring location to be marked and its position determined by a registered Florida land surveyor;
___	_____	x	___	e. Leachate sampling locations proposed; (62-701.510(5),FAC)
				f. Initial and routine sampling frequency and requirements; (62-701.510(6),FAC)
___	_____	___	x	(1) Initial background ground water and surface water sampling and analysis requirements;
___	_____	x	___	(2) Routine leachate sampling and analysis requirements;
___	_____	___	x	(3) Routine monitoring well sampling and analysis requirements;
___	_____	x	___	(4) Routine surface water sampling and analysis requirements.
___	_____	___	x	g. Describe procedures for implementing evaluation monitoring, prevention measures and corrective action as required; (62-701.510(7),FAC)
___	_____	___	x	h. Water quality monitoring report requirements; (62-701.510(9),FAC)
___	_____	___	X	(1) Semi-annual report requirements;
___	_____	___	X	(2) Bi-annual report requirements signed, dated and sealed by PG or PE.

N. SPECIAL WASTE HANDLING REQUIREMENTS (62-701.520, FAC)

S	LOCATION	N/A	N/C		
x	Section 15	___	___	1.	Describe procedures for managing motor vehicles; (62-701.520(1),FAC)
x	Section 15	___	___	2.	Describe procedures for landfilling shredded waste; (62-701.520(2),FAC)
x	Section 15	___	___	3.	Describe procedures for asbestos waste disposal; (62-701.520(3),FAC)
x	Section 15	___	___	4.	Describe procedures for disposal or management of contaminated soil; (62-701.520(4), FAC)
x	Section 15	___	___	5.	Describe procedures for disposal of biological wastes; (62-701.520(5), FAC)

O. GAS MANAGEMENT SYSTEM REQUIREMENTS (62-701.530,FAC)

				1.	Provide the design for a gas management systems that will (62-701.530(1), FAC):
x	Section 16	___	___	a.	Be designed to prevent concentrations of combustible gases from exceeding 25% the LEL in structures and 100% the LEL at the property boundary;
x	Section 16	___	___	b.	Be designed for site-specific conditions;
x	Section 16	___	___	c.	Be designed to reduce gas pressure in the interior of the landfill;
x	Section 16	___	___	d.	Be designed to not interfere with the liner, leachate control system or final cover.
x	Section 16	___	___	2.	Provide documentation that will describe locations, construction details and procedures for monitoring gas at ambient monitoring points and with soil monitoring probes; (62-701.530(2), FAC):
x	Section 16	___	___	3.	Provide documentation describing how the gas remediation plan and odor remediation plan will be implemented; (62-701.530(3), FAC):
				4.	Landfill gas recovery facilities; (62-701.530(5), FAC):
___	_____	x	___	a.	Information required in Rules 62-701.320(7) and 62-701.330(3), FAC supplied;
___	_____	x	___	b.	Information required in Rule 62-701.600(4), FAC supplied where relevant and practical;
___	_____	x	___	c.	Estimate of current and expected gas generation rates and description of condensate disposal methods provided;

S	LOCATION	N/A	N/C	PART O CONTINUED
___	_____	x	___	d. Description of procedures for condensate sampling, analyzing and data reporting provided;
___	_____	x	___	e. Closure plan provided describing methods to control gas after recovery facility ceases operation and any other requirements contained in Rule 62-701.400(10), FAC;
___	_____	x	___	f. Performance bond provided to cover closure costs if not already included in other landfill closure costs.

P. LANDFILL FINAL CLOSURE REQUIREMENTS (62-701.600,FAC)

1. Closure schedule requirements; (62-701.600(2),FAC)

x	Section 17(2)		___	a. Documentation that a written notice including a schedule for closure will be provided to the Department at least one year prior to final receipt of wastes;
x	Section 17(2)		___	b. Notice to user requirements within 120 days of final receipt of wastes;
x	Section 17(2)		___	c. Notice to public requirements within 10 days of final receipt of wastes.

2. Closure permit general requirements; (62-701.600(3),FAC)

x	Section 17(3)	___	___	a. Application submitted to Department at least 90 days prior to final receipt of wastes;
				b. Closure plan shall include the following:
x	Section 17(4)		___	(1) Closure report;
x	Section 17(5)		___	(2) Closure design plan;
x	Section 17(6)		___	(3) Closure operation plan;
x	Section 18	___	___	(4) Closure procedures;
x	Section 19	___	___	(5) Plan for long term care;
x	Section 20	___	___	(6) A demonstration that proof of financial responsibility for long term care will be provided.

3. Closure report requirements; (62-701.600(4),FAC)

a. General information requirements;

___	_____	x	___	(1) Identification of landfill;

S	LOCATION	N/A	N/C	PART P CONTINUED
___	_____	x	___	(2) Location, description and vicinity map;
___	_____	x	___	(3) Total acres of disposal areas and landfill property;
___	_____	x	___	(4) Legal property description;
___	_____	x	___	(5) History of landfill;
___	_____	x	___	(6) Identification of types of waste disposed of at the landfill.
___	_____	x	___	b. Geotechnical investigation report and water quality monitoring plan required by Rule 62-701.330(3),FAC;
___	_____	x	___	c. Land use information report indicating: identification of adjacent landowners; zoning; present land uses; and roads, highways right-of-way, or easements.
___	_____	x	___	d. Report on actual or potential gas migration at landfills containing degradable wastes which would allow migration of gas off the landfill property;
___	_____	x	___	e. Report assessing the effectiveness of the landfill design and operation including results of geotechnical investigations, surface water and storm water management, gas migration and concentrations, condition of existing cover, and nature of waste disposed of at the landfill;
				4. Closure design requirements to be included in the closure design plan: (62-701.600(5),FAC)
x	App. B, Dwgs. 6-8		___	a. Plan sheet showing phases of site closing;
x	App. B, Dwgs. 3-8		___	b. Drawings showing existing topography and proposed final grades;
x	Section 17(1)		___	c. Provisions to close units when they reach approved design dimensions;
x	App. B, Dwg. 8		___	d. Final elevations before settlement;
x	App. B, Dwg. 9		___	e. Side slope design including benches, terraces, down slope drainage ways, energy dissipators and discussion of expected precipitation effects;
				f. Final cover installation plans including:
___	_____	x	___	(1) CQA plan for installing and testing final cover;

S	LOCATION	N/A	N/C	PART P CONTINUED
x	Section 17(1)			(2) Schedule for installing final cover after final receipt of waste;
x	Section 17(5)			(3) Description of drought-resistant species to be used in the vegetative cover;
x	App. B, Dwg. 8			(4) Top gradient design to maximize runoff and minimize erosion;
x	Section 19(1)			(5) Provisions for cover material to be used for final cover maintenance.
				g. Final cover design requirements:
x	App. B, Dwg. 9			(1) Protective soil layer design;
x	App. B, Dwg. 9			(2) Barrier soil layer design;
x	App. B, Dwg. 9			(3) Erosion control vegetation;
		x		(4) Geomembrane barrier layer design;
		x		(5) Geosynthetic clay liner design if used;
			x	(6) Stability analysis of the cover system and the disposed waste.
x	Section 13(10)			h. Proposed method of stormwater control;
x	App. D, Sec. 6.1			i. Proposed method of access control;
x	Section 18(7)			j. Description of proposed final use of the closed landfill, if any;
x	Section 16			k. Description of the proposed or existing gas management system which complies with Rule 62-701.530, FAC.
				5. Closure operation plan shall include: (62-701.600(6),FAC)
		x		a. Detailed description of actions which will be taken to close the landfill;
		x		b. Time schedule for completion of closing and long term care;
		x		c. Describe proposed method for demonstrating financial responsibility;
		x		d. Indicate any additional equipment and personnel needed to complete closure.

S	LOCATION	N/A	N/C	PART P CONTINUED
___	_____	x	___	e. Development and implementation of the water quality monitoring plan required in Rule 62-701.510, FAC.
___	_____	x	___	f. Development and implementation of gas management system required in Rule 62-701.530, FAC.
___	_____	x	___	6. Justification for and detailed description of procedures to be followed for temporary closure of the landfill, if desired; (62-701.600(7),FAC)

Q. CLOSURE PROCEDURES (62-701.610,FAC)

S	LOCATION	N/A	N/C		
x	Section 18(2)			1.	Survey monuments; (62-701.610(2),FAC)
x	Section 18(3)			2.	Final survey report; (62-701.610(3),FAC)
x	Section 18(4)			3.	Certification of closure construction completion; (62-701.610(4),FAC)
x	Section 18(5)			4.	Declaration to the public; (62-701.610(5),FAC)
x	Section 18(6)			5.	Official date of closing; (62-701.610(6),FAC)
x	Section 18(7)			6.	Use of closed landfill areas; (62-701.610(7),FAC)
x	Section 18(8)			7.	Relocation of wastes; (62-701.610(8), FAC)

R. LONG TERM CARE REQUIREMENTS (62-701.620,FAC)

x	Section 19(5)			1.	Maintaining the gas collection and monitoring system; (62-701.620(5), FAC)
x	Section 19(6)			2.	Right of property access requirements; (62-701.620(6),FAC)
x	Section 19(7)			3.	Successors of interest requirements; (62-701.620(7),FAC)
x	Section 19(9)			4.	Requirements for replacement of monitoring devices; (62-701.620(9),FAC)
x	Section 19(10)			5.	Completion of long term care signed and sealed by professional engineer (62-701.620(10), FAC).

S. FINANCIAL RESPONSIBILITY REQUIREMENTS (62-701.630,FAC)

x	Appendix E			1.	Provide cost estimates for closing, long term care, and corrective action costs estimated by a PE for a third party performing the work, on a per unit basis, with the source of estimates indicated; (62-701.630(3)&(7), FAC).
x	Section 20			2.	Describe procedures for providing annual cost adjustments to the Department based on inflation and changes in the closing, long-term care, and corrective action plans; (62-701.630(4)&(8), FAC).
x	Section 20			3.	Describe funding mechanisms for providing proof of financial assurance and include appropriate financial assurance forms; (62-701.630(5),(6),&(9), FAC).

T. CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

1. Applicant:

The undersigned applicant or authorized representative of Waste Management Inc. of Florida is aware that statements made in this form and attached information are an application for a Class III Landfill Construction and Operation Permit from the Florida Department of Environmental Protection and certifies that the information in this application is true, correct and complete to the best of his/her knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department. It is understood that the Permit is not transferable, and the Department will be notified prior to the sale or legal transfer of the permitted facility.

Signature of Applicant or Agent

R. David McConnell, Vice President
Name and Title (please type)

dmcconell@wm.com
E-Mail address (if available)

2859 Paces Ferry Road, Suite 1600
Mailing Address

Atlanta, GA 30339
City, State, Zip Code

(770) 805-3345
Telephone Number

Date: 1/13/2006

Attach letter of authorization if agent is not a governmental official, owner, or corporate officer.

2. Professional Engineer registered in Florida (or Public Officer if authorized under Sections 403.707 and 403.7075, Florida Statutes):

This is to certify that the engineering features of this solid waste management facility have been designed/examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, this facility, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and rules of the Department. It is agreed that the undersigned will provide the applicant with a set of instructions of proper maintenance and operation of the facility.

Signature

William J. Edwards, P.E., Senior Eng.
Name and Title (please type)

60876
Florida Registration Number
(please affix seal)

WILLIAM J. EDWARDS LICENSE No. 60876 STATE OF FLORIDA PROFESSIONAL ENGINEER

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ENGINEERING REPORT

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* * * * * *

1. INTRODUCTION
(Form 62-701.900(1) – Parts A and B)

The Keene Road South, Class III Landfill (KRS), formerly known as the Buttrey Development Class III Landfill, is owned by Waste Management Inc. of Florida (WMIF) and located at 230 West Keene Road, Apopka, Orange County, Florida, 32703. The site is currently permitted as a Class III landfill by construction and operation permits SC48-0165969-001 and SO48-0165969-002, respectively; however, waste operations are not projected to commence for 2-3 years. The aforementioned permits have been modified several times, and a copy of each permit and modification is provided in Appendix A of this permit renewal application for ease of reference.

WMIF is submitting this application to renew the aforementioned permits without changes. This report complies with the requirements of Chapter 62-701, Florida Administrative Code (FAC), and included herein are responses to the sections of the regulations and completed application form (62-701.900(1)) that apply to this application. Among the responses included are detailed drawings (Appendix B), showing a cover sheet, site plan, landfill final grades and other engineering drawings. Other parts of the Rule are also addressed as necessary to fully describe the construction and operation of the KRS Class III Landfill.

2. INTENT
(Rule 62-701.100)

This permit application conforms to the intent of Rule 62-701, FAC by documenting compliance with the established standards for the construction, operation, and closure of solid waste management facilities.

3. APPLICABILITY
(Rule 62-701.220)

The KRS Class III landfill is a solid waste management facility subject to the requirements of Chapter 62-701, FAC. The proposed Class III disposal area will be constructed, operated, and closed in accordance with the aforementioned rule requirements for Class III landfills.

WMIF acknowledges that the Department does not evaluate compliance with local zoning or land use ordinances. Please note that the facility also holds a current landfill permit with the City of Apopka.

4. PROHIBITIONS
(Rule 62-701.300, Form 62-701.900(1) – Part D)

By following the permitted plans and drawings, the KRS Class III Landfill will operate in conformance with all prohibitions listed in Rule 62-701.300, and such operations strive to protect the environment through FDEP approved procedures.

(1) General Prohibition – The permit renewal application is not expected to violate any applicable standards or criteria for air or water quality.

(2) Siting – The existing and proposed Class III waste disposal activities will comply with each of the following prohibitions.

(a) The underlying geology beneath the waste will provide adequate support for the permitted overburdening waste column. A foundation analysis for the permitted landfill has been provided to the Department in the past and remains valid. No changes are proposed with this permit renewal application.

(b) Waste in the permitted disposal area will not violate the 500-feet setback requirement for potable wells. Drawing 2 in Appendix B provides a map of potable wells in the vicinity of the KRS Class III landfill. This map was created

using updated data obtained from the St. Johns River Water Management District (SJRWMD); the data is provided in Appendix C and covers an area extending outward, at least one mile, from the KRS property boundaries.

(c) No waste will be disposed in a dewatered pit. As shown on Drawing 5, Appendix B, the permitted minimum elevations for waste disposal will be at least 5-feet above the seasonal high groundwater table.

(d) The KRS Class III Landfill is not located in a flood-prone area.

(e) Waste will not be disposed in surface or ground water.

(f) Waste will not be disposed within 200-feet of any natural or artificial body of water.

(g) Waste will not be disposed in public right of way.

(h) Waste will not be disposed within 1000-feet of any existing or approved potable water well serving a community.

(3) Burning – WMIF does not propose to burn solid waste at the KRS Class III Landfill.

(4) Hazardous Waste – No hazardous waste will knowingly be accepted for disposal.

(5) PCBs – No PCB-containing materials will knowingly be accepted for disposal.

(6) Biomedical Waste – No biomedical waste will knowingly be accepted for disposal.

(7) Class I Surface Waters – No waste will be disposed within 3,000-feet of Class I surface waters.

(8) Special Wastes for Landfills – Lead-acid batteries, used oil, white goods, and whole waste tires are classified as special waste for landfills and will not knowingly be accepted for disposal.

(9) Special Wastes for Waste-to-Energy Facilities – The KRS Class III Landfill is not a waste-to-energy facility; therefore this rule does not apply.

(10) Liquid Restrictions – Liquids, as described in Rule 62-701.300(10), FAC, will not knowingly be accepted for disposal.

(11) Oily Waste – KRS Class III Landfill will comply with the restrictions on disposal of used oil and oily waste.

(12) Yard Trash – The disposal of yard trash is permitted to occur at the unlined KRS Class III Landfill.

(13) Tanks – The KRS Class III Landfill will not store or treat waste in tanks.

(14) Indoor Storage – The KRS Class III Landfill will not store or process waste indoors.

(15) Storage in Vehicles – The KRS Class III Landfill will not store waste in vehicles.

(16) Existing Facilities – WMIF acknowledges that the KRS Class III Landfill was not constructed prior to May 27, 2001. Therefore, the landfill remains subject to the prohibitions listed in the May 27, 2001 version of Chapter 62-701, FAC.

5. ALTERNATE PROCEDURES (Rule 62-701.310)

WMIF is not seeking an alternate procedure per Rule 62-701.310, FAC.

6. PERMIT FEES FOR SOLID WASTE MANAGEMENT FACILITIES (Rule 62-701.315)

A check in the amount of ten thousand dollars ($10,000) has been provided with this permit application for the solid waste management facility permit fee. Class III Landfill permit fees for construction and operation permits are $6,000 and $4,000, respectively, as established by Rules 62-701.315 (1)(c) and (2)(c), FAC.

7. SOLID WASTE MANAGEMENT FACILITY PERMIT REQUIREMENTS (Rule 62-701.320, Form 62-701.900 – Part E)

WMIF is submitting this permit application to renew the existing construction and operation permits (#SC48-0165969-001 and SO48-0165969-002, respectively), as modified by subsequent permitting actions, at the KRS Class III Landfill.

Four (4) copies of this permit application have been submitted to the FDEP Central District office along with a check for Ten Thousand Dollars ($10,000), as required by Rule 62-701.315, FAC.

(1) Application Content and Format – This application package contains or addresses all content required under 62-701.320, FAC. Much of the required information is on file at FDEP and remains valid.

(a) Letters of transmittal are provided in front of the application package.

(b) A completed application Form (62-701.900(1)), dated and signed by the applicant, is provided following the transmittal letters.

(c) The $10,000 permit fee is provided, by check payable to the Department, following the completed FDEP Form.

(d) The Engineering Report comprises the majority of this application package. This report contains a cover sheet, table of contents, and text on consecutively numbered pages as required by Rule 62-701.320(7)(d), FAC.

(e) Appendices have been included with the Engineering Report to provide the Department with the necessary information to review and approve this permit application. A list of appendices is provided with the table of contents at the front of this Engineering Report. An operation plan that includes contingency and training plans, is provided in Appendix D of this permit application.

(f) Engineering Drawings are provided in Appendix B and are listed in the table of contents. The drawings include all format and content required by Rule 62-

701.320(7)(f), FAC, and provide adequate information for Department review and approval of this application.

(g) WMIF is the legal owner, operator, and applicant for the KRS Class III Landfill. Supporting documentation is already on file with the Department and has not been resubmitted with this application.

(h) WMIF is not a County; therefore the documentation required by Rule 62-701.320(7)(h), FAC does not apply to this facility or application.

(i) WMIF is not an irresponsible applicant, and under WMIF, neither the Keene Road Recycling and Disposal Facility, nor the KRS Class III Landfill have been the subject of any Department enforcement action.

(2) Notice of Application – It is understood that the publication of a Notice of Application is not required for this permit renewal, but that the Department has the authority to require such a publication.

(3) Airport Safety – As provided in Rule 62-701.340(3)(c), FAC, Class III landfills are not authorized to receive putrescible waste. Therefore, the exemption provided in Rule 62-701.320(13)(d)7, FAC, applies to Class III landfills, and Class III landfills are not required to observe airport runway setbacks. It should be noted that an updated airport search identifies the private Carter Airport as shown on Drawing 2 in Appendix B. Based on the limited airport use (unattended, no control tower, runway is not paved, airport houses two single-engine aircraft) and the nature of Class III waste (non-putrescible, not expected to attract birds, or other wildlife representing a hazard to aircraft), the renewal of the KRS Class III Landfill solid waste permits is not expected to pose a hazard to aircraft.

(4) Operator Training – A training plan that complies with the requirements of Rule 62-701.320(15), FAC, is provided within the Operation Plan in Appendix D. Please note that the personnel and equipment currently operating the Keene Road Recycling and Disposal Facility, at 255 W. Keene Road, will be relocated to the KRS Class III Landfill.

8. LANDFILL PERMIT REQUIREMENTS
(Rule 62-701.330, Form 62-701.900 – Part F)

WMIF is submitting this permit application to renew the existing construction and operation permits at the KRS Class III landfill. This application has been prepared to be in compliance with the requirements of Rule 62-701.330, FAC.

(1) Term of Permit – WMIF acknowledges that the time period for permits shall be no longer that five years from date of issuance by the Department.

(2) Permit Applications

(a) Drawing 10 in Appendix B provides an updated land use and zoning map for all areas within one mile of the KRS Class III Landfill.

(b) Drawing 2 in Appendix B provides an airport map that shows the only airport located within five miles of the KRS property.

(c) The required plot plan information is provided on drawings in Appendix B, and includes a cover sheet with vicinity map (Drawing 1), aerial photograph (Drawing 2), existing topography (Drawings 3A – 3C), site plan (Drawing 4), base grades (Drawing 5), phasing plans (Drawings 6 and 7), final grades (Drawing 8), and cross-sections (Drawing 9).

(d) The drawings in Appendix B provide the information required by Rule 62-701.330(3)(d), FAC. The drawings include topographic maps, fill areas, permitted final grades, and stormwater management areas, as well as access control and roadways.

(e) The KRS Class III landfill will serve Orange County and surrounding communities. The specific areas from which KRS will receive waste will change as old contracts expire and new contracts are signed.

WMIF will accept Class III waste from a variety of sources including construction and demolition debris sites, landscaping/landclearing wastes, and

non-recyclable debris from Class III / C&D materials recovery facilities. The anticipated waste acceptance rate will be about 2,000 TPD in 2008-2009; however, this rate may increase to as much as 2,500 within five years of facility startup. The 37.7 acre area defined by Cells 1-4 (formerly referred to as Buttrey Development II Landfill) will provide approximately 3.58 million CY of airspace available for waste and weekly cover. Assuming an average waste acceptance rate of 2,250 TPD, an in-place waste density of 1,500 lb/CY, and a 5% airspace loss for weekly cover, the life expectancy of Cells 1-4 is 3.7 years. The entire KRS Class III Landfill provides 9.58 million CY of airspace for waste and weekly cover. Using an average waste acceptance of 2,500 TPD, this amounts to a life expectancy of 8.9 years.

(f) Hydrogeological and geotechnical investigations have previously been performed and submitted to the Department for the currently permitted KRS Class III landfill, and they are on file with the Department. Please note that no changes are proposed to the currently permitted landfill.

(g) The existing Construction and Operation Permits (#SC48-0165969-001 and SO48-0165969-002 respectively) include a facility-wide Monitoring Plan Implementation Schedule (MPIS) issued by the Department. No changes are proposed to the information already on file with the Department with this permit renewal application.

(h) The KRS Class III landfill is a permitted, but not yet active facility. Background groundwater quality sampling has been performed and reported to the Department. Once the KRS Class III Landfill becomes active, WMIF will comply with Department requirements for submitting semi-annual and biennial groundwater quality monitoring reports.

(i) WMIF has not established financial assurance for KRS as it is not yet active. Appendix E provides updated closure construction and long-term care cost

estimates. In accordance with Specific Condition 45 of permits SC48-0165969-001 and SO48-0165969-002, WMIF will provide proof of funding of the financial assurance instrument, in the amount of Department-approved estimates, at least 60 days prior to the initial receipt of waste.

(j) An operation plan, which includes a contingency plan, is provided in Appendix D of this permit renewal application.

9. GENERAL CRITERIA FOR LANDFILLS

(Rule 62-701.340, Form 62-701.900(1) – Part G)

(1) Performance Standards – The permitted Class III landfill is designed to control movement of waste constituents such that water quality standards and criteria, and air quality standards will not be violated.

(2) Minimum Groundwater Criteria – The KRS Class III landfill does not have a bottom liner, therefore the provisions of Rule 62-701.340(2), FAC do not apply.

(3) Classification of Landfills – The KRS is a Class III Landfill, as defined by Rules 62-701.200(14) and 62-701.340(3)(c), FAC. WMIF does not propose to change this status.

(4) Location Requirements – The underlying geology is adequate to support the proposed footprint and overburdening waste.

The permitted landfill is not located within a 100-year floodplain. Maps verifying this are currently on file with the Department for the currently permitted facility.

As shown on Drawing 4 in Appendix B, 50-foot minimum waste setback from the property boundary has been permitted adjacent to areas where deflection liner is to be installed. Please note that most of the deflection liner has already been installed and certified to the Department. The deflection liner has been permitted, as shown on

Drawing 4, between the 50-foot and the 100-foot property line setback. WMIF proposes no changes to the currently permitted design. The setback areas will be used for stormwater management and public screening. Screening shall be provided, as much as practical, by the use of trees and fencing.

(5) Zone of Discharge – The edge of the zone of discharge for the KRS disposal facility will not exceed 100-ft from the edge of the proposed Class III landfill disposal area, as required by Rule 62-701.340(5), FAC. In locations where the waste setback is 50-feet from the property line, the edge of the zone of discharge shall not exceed the property line.

10. LANDFILL CONSTRUCTION REQUIREMENTS (Rule 62-701.400, Form 62-701.900(1) – Part H)

(1) Minimum Design Standards – WMIF acknowledges that FDEP may impose more stringent requirements than those outlined in Rule 62-701.400, FAC, as necessary to protect the environment and the public health and safety due to site specific conditions and types of wastes to be disposed. In meeting the construction design standards of this rule, this application provides reasonable assurance that the performance standards of Rule 62-701.340(1), FAC, will be met.

(2) Planned Construction and Closure – As shown on Drawings 7 and 8 in Appendix B, the waste disposal units will be constructed at planned intervals throughout the design period of the landfill.

(3) Landfill Liner Requirements – As described in Specific Condition 15 of permits SC48-0165969-001 and SO48-0165969-002, WMIF will install a 60-mil high density polyethylene (HDPE) geomembrane liner along the western, southern, and eastern perimeters of Cells 1 through 4. Please refer to Drawing 4 in Appendix B for a Site Plan that shows where the deflection liner has already been installed, as well as the other permitted areas that still require deflection liner installation. The initial liner

placement occurred in October 2004, and the Certification of Construction Completion was submitted to the Department in December 2004. The Certification report documented CQA procedures as well as liner testing and repair.

WMIF will ensure that the first layer of waste placed above the liner will be a minimum of four feet in compacted thickness and will consist of selected waste containing no large rigid objects that may damage the deflection liner.

(4) Leachate collection and removal system – The deflection liner at the KRS Class III Landfill is not intended to serve as a bottom liner. Therefore the landfill design does not include a leachate collection and removal system, and the requirements of Rule 62-701.340(4), FAC, do not apply to KRS.

(5) Leachate recirculation – WMIF is not proposing to recirculate leachate; therefore, this section is not applicable to this permit application.

(6) Leachate storage tanks and leachate surface impoundments – The KRS Class III Landfill is not equipped with a bottom liner or leachate collection and removal system. Therefore this rule does not apply.

(7) Liner Systems Construction Quality Assurance – A liner CQA plan was provided to the Department prior to the initial deflection liner installation in October 2004. Prior to the installation of the remainder of the deflection liner, WMIF will provide the Department an updated CQA Plan to be used for its construction.

(8) Soil liner CQA – Soil Liner CQA is not applicable to this permit application.

(9) Surface Water Management Systems – The existing facility has a Department Environmental Resources Permit (ERP48-0187635-001-EI). No changes to the existing ERP are being proposed with this permit renewal application.

(10) Gas Control Systems – Gas monitoring locations are shown on Drawing 4 in Appendix B. Please refer to Section 16 of this report for more detail on gas management.

(11) Landfills in groundwater – The KRS Class III landfill is not situated in groundwater; therefore, Rule 62-701.400(11), FAC, is not applicable.

11. HYDROGEOLOGICAL AND GEOTECHNICAL INVESTIGATION REQUIREMENTS (Rule 62-701.410, Form 62-701.900(1) – Parts I and J)

Hydrogeological and geotechnical investigations have been performed for the currently permitted Class III landfill. This information is still valid and is on file at the Central District Office of the Department. No changes to the currently permitted design have been proposed within this application.

In conformance with Rule 62-701.410(1) (b), an updated inventory of all the public and private water wells within a one-mile radius of the permitted Class III landfill is provided in Appendix C. The inventory includes all available information provided by the St. Johns River Water Management District for an area extending at least one mile from the KRS property.

There are no existing or approved potable wells within 500-feet of the permitted Class III Landfill. Additionally, there are no existing or approved community potable water wells present within 1,000 ft. of the property. A map of all potable wells in the vicinity of KRS is provided on Drawing 2 in Appendix B.

12. VERTICAL EXPANSION OF LANDFILLS (Rule 62-701.430, Form 62-701.900(1) – Part K)

This section of the Rule does not apply since WMIF is not proposing a vertical expansion of the KRS Class III landfill at this time.

13. LANDFILL OPERATION REQUIREMENTS
(Rule 62-701.500, Form 62-701.900(1) – Part L)

(1) Operating Personnel – WMIF acknowledges Rule 62-701.500(1), FAC which states, *"All Class I and Class III landfills shall have at least one trained operator at the landfill during all times when the landfill receives waste. Trained operators are those who have satisfied the requirements of Chapter 62-701.320(15), F.A.C. All Class I and Class III landfills shall have at least one spotter at each working face at all times when the landfill receives waste to detect unauthorized wastes."* The KRS Class III landfill, once active, will comply with this rule by having at least one trained operator on site while accepting waste and at least one trained spotter at the active face landfill while accepting waste. Please note that the trained operators and spotters from the Keene Road Recycling and Disposal Facility will be relocated to the KRS facility.

(2) Operation Plan – An operation plan for the facility is provided in Appendix D of this permit application. A contingency plan is also included with the operation plan.

(3) Operating Record – WMIF will maintain all operating records and make them available at reasonable times to Department personnel.

(4) Waste Records – All solid waste entering KRS will be weighed and logged as it is received. WMIF will maintain a record of the total tonnage of Class III waste received per day, and will estimate the amount of each type of waste listed under FAC 62-701.500(4)(b).

(5) Control of Access – Unauthorized waste disposal and access to and use of the facility will be controlled by fencing and gates, as well as signs and facility personnel. Public access and receipt of wastes shall occur only when an attendant is on duty.

(6) Monitoring of Waste

(a) A load-checking program will be implemented at the facility to detect and discourage attempts to dispose of unauthorized wastes at the landfill. The program consists of the following minimum requirements:

(i) WMIF will examine at least three random loads of solid waste delivered to the Class III landfill each week. The waste collection vehicle drivers selected by the inspector shall be directed to discharge their loads at a designated location segregated from the active working face within the landfill. A detailed inspection of the discharged material will be made for any unauthorized wastes.

(ii) If unauthorized wastes are found, WMIF will contact the generator, hauler, or other party responsible for shipping the waste to the landfill to determine the identity of the waste sources, and arrange for the removal of the subject waste from the site.

(b) If any regulated hazardous wastes are identified by random load checking, or are otherwise discovered through routine working face inspections to be improperly deposited at the landfill, WMIF will promptly notify the FDEP, the person responsible for shipping the wastes to the landfill, and the generator of the wastes, if known. The area where the wastes are deposited will immediately by cordoned off from public access. If the generator or hauler cannot be identified, WMIF will assure responsive cleanup, transportation, and disposal of the waste at a permitted hazardous waste management facility.

(c) Information and observations resulting from each random inspection will be recorded in writing and retained at the site for at least three years. The recorded information shall include: the date and time of the inspection; the names of the hauling firm and the driver of the vehicle; the vehicle license plate number; the source of the waste, as stated by the driver; and observations made by the inspector during the detailed inspection. The written record shall be signed by the inspector.

(7) Waste Handling Requirements

(a) Solid waste at KRS shall be spread in layers and compacted using suitable heavy equipment. Bulky materials which are not easily compacted shall be worked into other materials as much as practical.

(b) There is no bottom liner at KRS; therefore no cautionary measures are necessary to protect bottom liners. However, select waste materials shall be disposed over the deflection liner as described in Section 10(3) of this report. The floor of the disposal area is surveyed prior to the initiation of waste disposal to ensure that waste disposal areas are not over excavated.

(c) Solid waste shall be formed into cells to construct horizontal lifts. The working face of the cell, and side grades above land surface, shall be at a slope no greater than three feet horizontal to one-foot vertical rise. Lift depth should normally not exceed 10-feet but may be deeper, depending on specific operations, daily volume of waste, width of the working face, and good safety practices.

(d) The proposed working face shall only be large enough to accommodate vehicles discharging waste, minimizing the exposed area, and avoiding unnecessary use of cover material.

(e) Initial cover shall consist of soil that may be mixed with mulch, as has been approved by the Department, and shall be applied and maintained at the Class III landfill in order to minimize any adverse environmental, safety, or health effects such as those resulting from blowing litter, odors, disease vectors, or fires. The minimum frequency for applying cover is at the end of each work week. Borrow soil will be obtained from the excavation of new landfill cells and stormwater ponds, or off-site sources.

(f) The Class III landfill will be filled to design dimensions and elevations and then closed in accordance with the requirements of Rule 62-701.500(7)(f), FAC. Since the Class III landfill is designed to be constructed in phases, the phases will receive intermediate cover 12" in thickness, in addition to the 6" initial cover, if subsequent filling will not occur for 180-days or longer.

(g) Final cover will be placed within the time frame set forth in the closure plan provided in Section 17.

(h) Uncontrolled and unauthorized scavenging shall not be permitted.

(i) A litter policing operation shall be employed to keep litter from leaving the working area of the landfill. Litter outside the working area shall be picked up, generally within 24 hours.

(j) Erosion control measures shall be employed to correct any erosion that would expose waste, allowing for moisture infiltration or cause a malfunction of the stormwater management system.

(8) Leachate Management – The KRS Class III Landfill is not equipped with a bottom liner or leachate collection and removal system. Therefore, the requirements of Rule 62-701.500(8), FAC do not apply.

(9) Gas Monitoring – A routine gas monitoring program will be established at the KRS Class III landfill in accordance with Rule 62-701.400(10) and 62-701.500(9), FAC to monitor, quarterly, combustible gas levels near the property boundary and within all KRS structures intended for human occupation.

(10) Stormwater Management System – Stormwater management within the active portion of the landfill will be achieved by grading all working face areas so that stormwater will drain to a swale at the landfill base or directly into a stormwater pond. Stormwater swales and access roads will be constructed to control the flow of runoff from the landfill. Once water is collected in the stormwater swales, it will flow to structures that will extend from the stormwater swales, down the sideslope, to a stormwater pond. The facility is currently issued a stormwater management ERP48-0187635-001-EI.

(11) Equipment and Operation Features

(a) WMIF will utilize and maintain adequate equipment based on incoming waste rate for operation of the facility. The types and number of pieces of equipment

may increase as dictated by the following: types and volume of wastes received, need for additional access roads, final cover application, etc. If additional equipment is ever needed, it is immediately available from other company operations and by local rental should any anomalous situation dictate the requirement for such equipment. Routine maintenance and cleaning will be performed as necessary to keep the equipment in good operating order.

(b) If a required piece of equipment breaks down, it will be repaired on-site or sent to a service facility for repairs. If the required equipment will be out of service for an extended period of time and backup equipment is not available on-site, it can be rented from equipment suppliers and be available at the site within 24 hours of breakdown.

(c) Communication equipment at the facility will consist of telephone service for outside communications and portable radios for communication between company vehicles and equipment.

(d) Dust will be controlled by establishing vegetative cover on final cover slopes and on areas which will not be active for extended periods of time. Entrance, perimeter, and access roads may be paved to minimize dust. Dust within the landfill and on dirt roads will be addressed by periodic watering as necessary. Stormwater basins may be used as a source of water for dust control.

(e) The chance of fire occurring at a properly run landfill is minimal. Fire protection procedures may include maintaining soil stockpiles in the vicinity of the working face. The initial cover used in the landfill operation provides an effective firewall. Should a fire occur at the landfill, the application of soil will be used to cut off the flow of oxygen into the burning area. A water truck will be made available as additional fire fighting equipment.

Appropriate fire extinguishers will be carried on the equipment at all times and can be used to control any small equipment fire that may occur.

(f) A litter policing operation will be employed to minimize litter from leaving the working face of the landfill. Litter is also to be policed on-site daily. Portable fences may be used, where necessary, to control blowing litter in the active landfilling areas. Litter will be policed in the immediate vicinity of the landfill, as necessary, to control any problems which may arise from blowing debris from trucks traveling to the landfill.

(g) Signs will be utilized, where necessary, to inform the public of important information concerning the facility.

(12) Roads

Access roads will be placed to allow vehicular access to the filling areas even during inclement weather conditions. During each phase of the Class III landfill operation, WMIF will continue to maintain access roads as necessary to provide for safe vehicle operation.

(13) Recordkeeping

(a) Information used to develop or support the permit application and any supplemental information submitted to comply with the requirements specified in Chapter 62-701 FAC, which pertain to operation of the landfill, will be kept at the facility throughout the design period. In addition, records pertaining to the operation of the landfill will also be kept for the design period of the landfill. Records more than five years old that are archived will be made available for inspection, if requested, within seven days.

(b) All monitoring records will include the following information:

(i) calibration and maintenance records,

(ii) original chart recordings for continuous monitoring instrumentation; and

(iii) copies of reports required by permit.

These records will be retained for at least ten years, and background water quality records will be kept for the design period of the landfill.

(c) An annual estimate of the remaining site life and capacity of the existing landfill for both the constructed and non-constructed permitted areas will be maintained. This estimate will be based on a summary of the heights, lengths, and widths of solid waste disposal. The estimate will be made and reported annually to FDEP.

14. WATER QUALITY AND LEACHATE MANAGEMENT REQUIREMENTS (Rule 62-701.510, Form 62-701.900(1) – Part M)

Groundwater monitoring reports for the KRS Class III landfill will be submitted to the Department semi-annually in accordance with the FDEP-approved facility-wide MPIS and the requirements of Rule 62-701.510, FAC. No changes are being proposed to the approved MPIS with this permit renewal application.

15. SPECIAL WASTE HANDLING (Rule 62-701.520, Form 62-701.900(1) – Part N)

(1) Motor Vehicles – Motor vehicles will not be accepted for disposal at the Class III landfill.

(2) Landfilling Shredded Waste – No solid waste shredding operations will occur at the KRS Class III landfill, so this rule does not apply. WMIF may, however, utilize shredded yard waste as a component of its cover system, but will only do so in strict

accordance with State of Florida requirements, and as pre-approved by the FDEP Central District Office.

(3) Asbestos Waste Disposal

(a) Asbestos-containing waste materials may be accepted for disposal at the KRS Class III landfill. Each active waste disposal site that receives asbestos-containing waste material from a source covered under the National Emission Standards for Asbestos, 40 CFR Part 61, Subpart M, will meet the requirements of 40 CFR Part 61.154.

(b) The waste generator will make arrangements with the landfill operator before disposal of such regulated asbestos-containing waste materials in the Class III landfill, and inform the operator of the quantity of the waste and the scheduled date the shipment will arrive at the landfill.

(c) The landfill operator will direct the waste transporter to the designated disposal location. The disposal location will be recorded in accordance with 40 CFR Part 61.154, and a record of the asbestos location will be maintained.

(4) Contaminated Soil – Contaminated soil is not knowingly accepted at the KRS, therefore, this rule does not apply. However, WMIF may accept clean soil that meets the commercial SCTL (Soil Cleanup Target Levels) identified in Chapter 62-777, FAC, Table II.

(5) Biological Waste – Biological waste will not be knowingly accepted at the KRS Class III landfill, therefore, this rule does not apply.

16. GAS MANAGEMENT SYSTEMS (Rule 62-701.530, Form 62-701.900(1) – Part O)

1. Design requirements

The gas management system at the KRS Class III landfill is designed to meet the following criteria:

- Designed to prevent concentrations of combustible gases from exceeding 25% of the LEL in structures and 100% of the LEL at the property boundary;
- Designed for site-specific conditions;
- Designed to reduce gas pressure in the interior of the landfill;
- Designed not to interfere with the liner, leachate control system, or final cover.

The gas management system, as is the industry standard for Class III landfills, consists of the application of cover over waste. Gas vents will be installed through the final cover to reduce gas pressure in the interior of the landfill. Should gas monitoring reveal a need for expanded passive gas collection systems, or even an active system, WMIF will address this with the Department when the need arises.

2. Monitoring requirements

A routine gas monitoring program will be established at the KRS Class III landfill in accordance with Rule 62-701.400(10) and 62-701.500(9), FAC to monitor quarterly the perimeter of the property and any structure intended for human occupation for the presence of combustible gas. The perimeter gas monitoring probe locations are shown on the Site Plan.

3. Construction and control requirements

a. Gas Remediation Plan

If methane levels exceed allowable limits specified in Chapter 62-701, FAC, immediate steps will be taken to ensure protection of human health and to notify

the FDEP. Following detection, a remediation plan will be developed for FDEP approval and subsequent implementation within 7 days of detection, as specified in Chapter 62-701, FAC.

b. Odor Remediation Plan

If gas concentrations cause objectionable odors beyond the landfill property boundary, WMIF will implement a routine odor-monitoring program to determine the time and extent of any off-site odors. If monitoring confirms that the KRS is the source of objectionable off-site odors, a remediation plan will be developed for FDEP approval and subsequent implementation within 30 days of detection.

17. LANDFILL FINAL CLOSURE (CLOSURE PLAN) (Rule 62-701.600, Form 62-701.900(1) – Part P)

(1) Applicability

WMIF acknowledges that once the KRS becomes active by receiving Class III waste, the requirements of Rule 62-701.600, FAC, will apply to KRS. WMIF does not propose to utilize the close-as-you-go approach to landfill closure. Rather, WMIF proposes to close the entire landfill as one closure construction project. Should WMIF elect to construct a partial closure, the construction will not be implemented without the necessary Department closure permit or permit modification. Final cover construction will be completed within 180 days following the landfill's attainment of design dimensions.

(2) Closure Schedule

(a) A written notice and a schedule for closure of the KRS Class III Landfill will be provided to the Department at least one year prior to the projected date when wastes will no longer be accepted or when the disposal units are expected to reach design dimensions. The closure schedule shall become an addendum to the

landfill permit. If unforeseen circumstances do not allow the one-year notification, notice will be provided as soon as the need to close the facility becomes apparent.

(b) At least 120 days prior to the date when wastes will no longer be accepted at the landfill, WMIF will advise users of the intent to close the landfill, the location of alternative disposal facilities, and the name of the person responsible for closing the landfill. Signs will be posted at the entrance and maintained throughout the closing period. If unforeseen circumstances do not allow the 120-day notice, notice will be provided as soon as the need to close the facility becomes apparent.

(c) Within 10 days prior to the date when wastes will no longer be accepted at the Class III landfill, WMIF will publish a notice of the closing in the legal section of a paper in general circulation in the County. Proof of publication will be provided to the Department within seven days of publication.

(3) Closure Permit Requirements – WMIF will submit an application to the Department for final closure of the proposed Class III landfill at least 90 days before the date when wastes will no longer be accepted. The application for a permit will include a closure plan, which includes the following:

a. A closure report
b. A closure design plan
c. A closure operation plan
d. Closure procedures
e. A plan for long-term care
f. A demonstration that proof of financial responsibility for long-term care will be provided.

(4) Closure report - A detailed Closure Report will be submitted to the Department within an application for final closure.

(5) Closure design - The closure design plan will consist of engineering plans and a report on closing procedures, which apply to closing during operation, final closing, and monitoring during the long-term care period. A detailed closure design will be included within an application for final closure.

As currently permitted and shown on Drawing 9 in Appendix B, the final cover will consist of three feet (minimum) of soil. The bottom 18 inches will be the barrier layer with hydraulic conductivity of 1 X 10^{-5} cm/s, or less. The upper 18 inches will be general soils capable of supporting vegetative growth. Vegetative growth, consisting of drought resistant species with roots that will not penetrate the barrier layer (typically grasses such as bahia or rye), must be established prior to the Department's accepting closure construction.

(6) Closure operation plan – The closure operation plan describing the actions and procedures leading up to landfill final closure will be developed as part of a permit application for final closure.

(7) Temporary closure – WMIF is not proposing temporary closure of the KRS Class III Landfill at this time.

18. CLOSURE PROCEDURES
(Rule 62-701.610, Form 62-701.900(1) – Part Q)

(1) Closing inspections – The Department will specify in the closure permit which closing activities must be inspected and approved by the Department before proceeding.

(2) Survey monuments – Survey monuments are not required, because the proposed final elevation is greater than 20 feet above the natural land surface.

(3) Final survey report – Since the proposed Class III landfill will be at an elevation higher than 20 feet above the ground surface, a final survey will be conducted after closure by a registered land surveyor or by aerial mapping techniques. Contours will be shown at no more than five-foot intervals. The survey will be included in the closure report submitted by WMIF.

(4) Certification of closure construction completion – A certification of closure construction will be submitted by a registered engineer, independent of the contractor, upon completion of closure. All substantial deviations from the permitted closure plan will be noted.

(5) Declaration to the public – Following inspection and approval by the Department, WMIF will file a public declaration in the deed records at the county clerk's office. The declaration will include a legal description of the property and a site plan specifying the area filled with solid waste. The declaration will also include a notice to any future owner or user of the site that they should consult with the Department prior to activities that might disturb the final cover, monitoring system, or other control structures. A certified copy of the declaration will be filed with the Department.

(6) Official date of closing – Upon receipt of the final survey, certification of closure construction, and the public declaration, the Department will acknowledge the receipt of these materials in writing within 30 days. The date of this letter will be the official date of closing to be used to determine the long-term care period.

(7) Use of closed landfill areas – WMIF acknowledges that the Department retains regulatory control over any activities that may affect the integrity of the closed landfill. The Department will be consulted prior to conducting activities at the closed landfill. At this time, WMIF plans for the KRS to be open green space after closure.

(8) Relocation of waste – WMIF does not plan to relocate waste from one point to another within the footprint of the same solid waste disposal without prior consent from the Department.

19. LONG-TERM CARE

(Rule 62-701.620, Form 62-701.900(1) – Part R)

(1) Long-term care period – WMIF acknowledges that, once active, the KRS Class III Landfill will become subject to a 30 year long-term care period. It is understood that WMIF will be responsible for all applicable, Department-required sampling, monitoring, reporting and maintenance during this period. Maintenance may include the repair of damaged monitoring devices, the replacement of dead vegetation, and the replacement of final cover to repair damage from erosion. The latter may require importing soils from off site.

(2) Long-term care permit – Long-term care will be conducted in accordance with a closure permit. The permits will be issued for a duration of 10 years unless the owner requests a shorter duration.

(3) Reduced long-term care period – WMIF may apply to the District Office of the Department for a reduction in the long-term care period if reasonable assurance is provided that there is no remaining threat to human health or the environment.

(4) Modified groundwater monitoring plan – WMIF may apply through the Department district office for a modification to the groundwater monitoring plan to delete parameter(s) from the required monitoring list. In that case, WMIF will demonstrate that the parameter(s) proposed for removal have never been detected in the groundwater or leachate during the active life of the landfill.

(5) Gas collection and monitoring – The gas collection and monitoring system will be maintained for the long-term care period of the landfill. Any permit modifications to reduce the long-term care schedule will be obtained through the Department.

(6) Right of property access – WMIF will maintain a right to use and access to the landfill property in order to inspect, monitor, and maintain the site.

(7) Successors of interest – Any person who acquires rights or ownership of a permitted landfill will be subject to all of the requirements of the permit for the facility and will provide proof of financial responsibility to the Department.

(8) Transfer of permit – Any transfer of the permit will be in accordance with Rule 62-4.120, FAC, and Chapter 62-701, FAC.

(9) Replacement of monitoring devices – If a monitoring well or device required by the monitoring plan fails or is destroyed, WMIF will notify the Department immediately in writing. The device will be replaced within 60 days unless the Department notifies WMIF in writing.

(10) Completion of long-term care – Following the long-term care period, the owner will notify the Department through a certification by a professional engineer verifying the long-term care is complete in accordance with the closure plan and a copy of this certification has been placed in the operating record.

20. FINANCIAL ASSURANCE
(Rule 62-701.630, Form 62-701.900(1) – Part S)

Updated closure and long-term care cost estimates are provided in Appendix E of this application. Please note that only Cells 1-4 (the area formerly referred to as the Buttrey Development II Landfill) are included in the estimates. WMIF understands that a

professional engineer must revise the estimates prior to waste filling activities beyond Cells 1-4.

As the KRS Class III Landfill is not yet active, WMIF requests that the Department re-issue specific condition #45 of the existing permits. This condition requires that WMIF submit proof of the fully funded financial assurance mechanism at least 60 days prior to waste acceptance. WMIF understands that closure and long-term care cost estimates must continue to be updated annually both preceding and following waste acceptance.

APPENDIX A

EXISTING PERMITS AND MODIFICATIONS

Department of Environmental Protection

Jeb Bush
Governor

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

David B. Struhs
Secretary

NOTICE OF PERMIT

CERTIFIED
7099 3400 0010 0526 1274
In the matter of an
Application for Permit
by:

Mr. John Buttrey
Buttrey Development Two, LLC
6239 Edgewater Drive, Suite D-1
Orlando, Florida 32810

Orange County - SW
Keene Road Disposal/Buttrey Development, Class III Landfill
DEP File Nos. SC48-0165969-001 & SO48-0165969-002

Dear Mr. Buttrey:

Enclosed are Permit Numbers SC48-0165969-001 & SO48-0165969-002, to construct and operate the Keene Road Disposal/Buttrey Development, Class III Landfill, issued under Section(s) 403.061(14) and 403.707, of the Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit under section 120.68 of the Florida Statutes, by the filing of a Notice of Appeal under rule 9.110 of the Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000 and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this notice is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Vivian F. Garfein
Director of District Management
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803
407/894-7555

Date: March 5, 2001

FILING AND ACKNOWLEDGMENT

FILED, on this date, under section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

E. Williams 3/5/2001
[Clerk] **[Date]**

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 3/5/2001 to the listed persons.

VFG/gc/ew

Enclosure

Copies furnished to:
Mary Jean Yon - DEP - Tallahassee
Fred Wick - DEP - Tallahassee (w/o attachments)
Ed Chesney, P.E.
James Becker, Director - Orange County Utilities/Solid Waste Division
Orange County Environmental Protection Department

Department of Environmental Protection

Jeb Bush
Governor

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

David B. Struhs
Secretary

Permittee:

Buttrey Development Two, LLC
6239 Edgewater Drive, Suite D-1
Orlando, Florida 32810

Attention: Mr. John Buttrey

I.D. Number:
Permit / Certification Number:
SC48-0165969-001 & SO48-0165969-002
Date of Issue:
Expiration Date: 1/22/2006
County: Orange
Section / Township / Range:
28/ 21 South / 28 East
Latitude / Longitude:
28°38'25"/81°30'42"
Project: Keene Road Disposal/Buttrey Development, Class III Landfill

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-701 and 62-711. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

To construct and operate the Keene Road Disposal/Buttrey Development, Class III Landfill. The Class III landfill is designed to reclaim an existing borrow pit. The landfill will accept Class III wastes in accordance with Rule 62-701.340(3)(d), F.A.C.

The Department has issued an order granting variance, SWVA No. 00-02, from Rule 62-701.340(4)(c), F.A.C. to the permittee. The variance will allow the disposal of solid waste within 50 feet of the property boundary on the west, south, and east sides of the property.

A high density polyethylene (HDPE) geomembrane liner will be installed along the western, southern and eastern perimeters of the borrow area to ensure that any leachate generated by the waste placed over the HDPE liner will be released to the unlined areas at a distance no closer than 100 feet to their adjacent property boundaries.

The landfill will service northwest Orange County and Orlando.

The disposal area is 37 acres within a property boundary of 60.53 acres.

The project incorporates a ground water monitoring plan.

LOCATION: The landfill is located at 230 West Keene Road, Apopka, in Section 28, Township 21 South, and Range 28 East, in Orange County, Florida.

General Conditions are attached and to be distributed to the permittee only.

"More Protection, Less Process"

Printed on recycled paper.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes (F.S.) The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup and auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

   (a) Have access to and copy any records that must be kept under conditions of this permit;
   (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
   (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

   (a) A description of and cause of noncompliance; and
   (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rule62-4.120 and 62-30.300, Florida Administrative Code (F.A.C.), as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

    ( ) Determination of Best Available Control Technology (BACT)
    ( ) Determination of Prevention of Significant Deterioration (PSD)
    ( ) Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
    ( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following:

    (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

    (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring information) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

    (c) Records of monitoring information shall include:
        1. the date, exact place, and time of sampling or measurements;
        2. the person responsible for performing the sampling or measurements;
        3. the dates analyses were performed;
        4. the person responsible for performing the analyses;
        5. the analytical techniques or methods used;
        6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

PERMITTEE:
Buttrey Development Two, LLC

Attention: Mr. John Buttrey

I.D. Number:
Permit/Certification Number: SC48-0165969-001 & SO48-0165969-002
Date of Issue:
Expiration Date: 1/22/2006

SPECIFIC CONDITIONS

1. Plans and Specifications: Drawings, plans, documents and specifications submitted by the permittee, not attached hereto, but remain on file at the Central District office, are made a part of this permit.

2. Inspection Requirements: A copy of the permit, with a complete copy of the permit application and engineering drawings shall be kept on file at the landfill for inspection and review upon request.

3. Other Permits: This permit does not relieve the permittee from complying with any other appropriate stormwater, MSSW or other permit requirements.

4. Signs: Signs indicating the name of the operating authority, traffic flow, hours of operation, charges for disposal and the types of wastes accepted shall be placed at all entrances to the site.

5. Site Access: Access to the site shall be restricted by an effective barrier designed to prevent unauthorized entry and dumping.

6. Litter, Dust & Fire Protection: The landfill shall have litter control devices, dust controls, fire protection and fire-fighting facilities. Litter is to be picked up and litter control devices are to be cleaned with the litter placed in the active cell.

7. Safety Devices: Safety devices shall be provided on equipment to shield and protect the operators from potential hazards during operation.

8. Equipment Breakdown: In the event of equipment malfunction, destruction, breakdown or other problems resulting in the permittee being temporarily unable to comply with any of the conditions of this permit, the Department is to be immediately notified by the permittee as to the cause, what steps are being taken to correct the problem and prevent its recurrence, as required by Rule 62-4.130, F.A.C.

9. Effluent Discharge: There shall be no discharge of liquid effluents or contaminated runoff to surface or ground water without prior approval from this Department.

10. Surface Water Management: All surface water runoff from the site shall be collected and treated to meet the requirements of Chapters 373 and 403, Florida Statutes (F.S.) prior to discharge off-site. The surface water management system shall prevent surface water flow into waste filled areas.

11. Zone of Discharge: The zone of discharge for the facility shall be a three dimensional volume, defined in the vertical plane as extending from the top of the ground to the base of the most surficial aquifer, and defined in the horizontal plane as extending 100 feet from the waste deposit or to the property boundary, whichever is less. Class G-II ground water quality standards must be met at the boundary of the zone of discharge in accordance with Rule 62-522.410, F.A.C.

PERMITTEE:
Buttrey Development Two, LLC

Attention: Mr. John Buttrey

I.D. Number:
Permit/Certification Number: SC48-0165969-001 & SO48-0165969-002
Date of Issue:
Expiration Date: 1/22/2006

SPECIFIC CONDITIONS

12. Quality Assurance: The Construction Quality Assurance (CQA) Plan submitted with the permit application shall be followed for installing and testing the liner system and related components. The CQA engineer or the engineer's designee shall be on-site at all times during construction of the liner system to monitor the construction activities including the preparation of the subgrade and placement of the liner to ensure the underlying geomembrane is not damaged during construction.

13. Supervision: A registered engineer qualified to practice in Florida shall supervise and evaluate the liner installation quality assurance/quality control program to ensure that the liner meets design specifications. Upon completion, the engineer shall submit a summary report to the Department as to the complete conformity to the plans and specifications as approved. This summary report shall include a documented control program of the liner installation, liner inspections and the quality assurance/quality control testing procedures and laboratory analyses. This report shall be signed and sealed by the CQA engineer and included with the certification required in Specific Condition No. 20 of this permit.

14. Base: Prior to the liner installation, the base shall be prepared to provide a firm unyielding foundation. The base shall not contain rocks, roots, debris, shells, or other materials that could penetrate the liner material.

15. Liner: A 60-mil high density polyethylene (HDPE) geomembrane liner shall be installed along the western, southern and eastern perimeters of the borrow area and shall meet the requirements of Rule 62-701.400(3)(e), F.A.C. The liner shall be covered with a 12-inch minimum sand cover and 24-inches sand at all vehicle access and trafficked areas. The sand should be free of rocks, sticks or any deleterious material which could puncture the liner.

16. Initial Waste Placement: The first layer of waste placed above the liner shall be a minimum of four feet in compacted thickness and consist of selected wastes containing no large rigid objects that may damage the liner.

17. Liner Installation: Installation of the liner shall be performed by an experienced installer who has installed similar type materials. The permittee shall notify the Department at least 10 days prior to any liner installation work.

18. Construction Permit Renewal: The construction shall reasonably conform to the plans and supporting documents submitted as part of the application. If construction cannot be completed on schedule, the permittee must notify the Department in writing at least 60 days prior to the expiration of the construction permit and request renewal of the construction permit.

19. Permit Deviations: the Department shall be notified and approval shall be obtained prior to executing any substantial changes or revisions to the construction and operation authorized by this permit.

20. Certification of Construction Completion: After all significant initial construction has been completed and prior to acceptance of any solid waste, the engineer of record shall complete a Certificate of Construction Completion, DEP Form 62-701.900(2), and then contact the Department to arrange for Department representatives to inspect the facility in the company of the permittee, the engineer and the proposed on-site facility operator.

PERMITTEE:
Buttrey Development Two, LLC

Attention: Mr. John Buttrey

I.D. Number:
Permit/Certification Number: SC48-0165969-001 & SO48-0165969-002
Date of Issue:
Expiration Date: 1/22/2006

SPECIFIC CONDITIONS

21. Disposal: The landfill shall not accept solid waste until the liner system is in place and functional and Specific Conditions 13 and 20 are satisfied.

22. Liner Edge Staking: The edge of the liner must be clearly and permanently marked or outlined by staking or other means and solid waste shall not be placed closer than approximately 5 feet back from the edge of the liner.

23. Waste Compaction & Working Face: Solid waste shall be spread in layers and compacted at least weekly, using suitable heavy equipment. All compacted solid waste shall be formed into cells with the working face and the side grades above land surface at a slope no greater than three (3) feet horizontal to one (1) foot vertical rise. The working face of a cell shall be only wide enough to efficiently accommodate vehicles discharging waste and to minimize the exposed area and the use of unnecessary cover material.

24. Initial Cover and Intermediate Cover: Initial cover shall be applied at least once every week. An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion if additional solid waste will not be deposited within 180 days of cell completion. All or part of the intermediate cover may be removed prior to placing additional waste or installing final cover.

25. Final Cover: All areas filled with waste shall have a final cover of soil to minimize infiltration of rainfall. Final cover and seeding for planting of vegetative cover shall be placed over each completed cell within 180 days after the final waste deposit. The final cover shall consist of a 3-foot thick layer of soil, of which the bottom 18 inches is the barrier layer and the top 18 inches thick to sustain vegetative growth. The 18 inch barrier layer shall have a permeability of 1×10^{-5} cm./sec. or less. Random and frequent control, sampling and analysis of the cover material shall be implemented in order to meet the 1×10^{-5} cm./sec. or less permeability specified.

26. Final Cover Surface Gradient: The top gradient of the final cover surface shall take into consideration the effects of expected subsidence caused by settling and decomposition of the fill material to minimize ponding and erosion.

27. Stormwater Infiltration: Infiltration of stormwater runoff into the closed landfill shall be minimized by capping of the landfill with a barrier soil layer as required by Rule 62-701.600(5)(g), F.A.C., and properly sloping the landifll surface to allow stormwater to drain from the landfill in a controlled manner.

28. Routine Maintenance: Cracks or eroded sections in the surface of any filled and covered area shall be properly repaired and a regular maintenance program shall be followed to eliminate pockets or depressions that may develop as refuse settles. The slopes and drainage structures shall be inspected at least monthly and after major storm events for evidence of settling, erosion, washout and siltation.

29. Monitoring Plan Implementation Schedule: The Monitoring Plan Implementation Schedule attached as Exhibit I, is made a part of this permit.

PERMITTEE:
Buttrey Development Two, LLC

Attention: Mr. John Buttrey

I.D. Number:
Permit/Certification Number: SC48-0165969-001 & SO48-0165969-002
Date of Issue:
Expiration Date: 1/22/2006

SPECIFIC CONDITIONS

30. Solid Waste Burning: Burning of solid waste is prohibited in accordance with Rule 62-701.300(3), F.A.C. Any fires at the facility must be reported to the Department within 5 days by letter explaining the cause, remedial action and measures taken to prevent a recurrence.

31. Control of Nuisance Conditions: The operating authority shall be responsible for the control of odors and fugitive particulates arising from this operation. Such controls shall prevent the creation of nuisance conditions that may arise from adverse odors on adjacent or nearby properties and users. Complaints received from the general public shall be immediately investigated by the permittee and where warranted, take corrective action to abate the adverse odor.

32. Gas Monitoring: The permittee shall implement a routine gas monitoring program in accordance with Rule 62-701.400(10) and 62-701.500(9), F.A.C. to monitor quarterly all waste filled areas for the presence of landfill gas. If large amounts of methane gas are detected or odors are found to be a nuisance, a gas control system shall be designed and installed.

33. Improper Operations: When the Department, after investigation, has good reason (such as complaints, questionable maintenance of equipment, improper operations, etc.) to believe that any applicable standard contained in Chapter 62-701, F.A.C. or in this permit is being violated, it may require the owner or operator of the source to identify the nature of the problem and to submit a report to the Department on the results of the investigation and corrective action taken to prevent its recurrence.

34. Operations Plan: An operation plan prepared by the engineer of record which shall include the sequence of filling, compaction, placement of cover, day to day operations, etc., shall be kept at the facility. The operator shall be trained and knowledgeable about the plan.

35. Operator Training Compliance: The Keene Road Disposal/Buttrey Development Landfill, shall comply with Rule 62-701.320(14), F.A.C. - Operator training. A person may not perform the duties of an operator of a landfill or materials recovery facility , unless he has completed an operator training course approved by the Department. An owner of a landfill may not employ any person to perform the duties of an operator unless such person has completed an approved solid waste management facility operator training course.

36. Waste Tires: Waste tires shall be received, stored and processed in accordance with the Waste Tire Rule, Chapter 62-711, F.A.C.

37. Hazardous Wastes: Any incidental hazardous wastes received in connection with operation of this facility must be disposed of in accordance with Rule 62-730, F.A.C.

38. Unacceptable Waste: Garbage, white goods, waste oil, hazardous wastes, infectious waste, residential waste and any other prohibited materials inadvertently received at the facility shall be immediately removed from the waste stream and shall be properly disposed of .

PERMITTEE:
Buttrey Development Two, LLC

Attention: Mr. John Buttrey

I.D. Number:
Permit/Certification Number: SC48-0165969-001 & SO48-0165969-002
Date of Issue:
Expiration Date: 1/22/2006

SPECIFIC CONDITIONS

39. Allowable Waste: This facility shall only process wastes that are acceptable for disposal at a Department permitted Class III landfill.

40. Operations Report: An operating report shall be submitted to the Department on a quarterly basis. Reports shall include the following:

    a) types of solid waste received, and
    b) quantities of solid waste received.

    All submittals in response to this specific condition shall be submitted to: Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, with a copy to: Department of Environmental Protection, Central District, Solid Waste Section, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.

41. Operation Permit Renewal: An operation permit renewal must be submitted at least 60 days prior to the expiration date of this permit. (Rule 62-4.090, F.A.C.)

42. Closure Permit Requirements: At least 90 days prior to the date when wastes will no longer be accepted at the landfill, the owner or operator shall submit a closure permit application to the Department.

43. Landfill Elevation: The maximum design elevation including final cover for the landfill shall not exceed elevation 150.0 feet NGVD.

44. Solid Waste Disposal: The solid waste disposal rate for this source is 2500 cubic yards per day as stated in the application. Actual operating rates may vary depending upon business conditions.

45. Financial Assurance Requirements: The permittee shall establish and maintain compliance with the financial assurance in accordance with the requirements of Rule 62-701.630, F.A.C. Proof that the financial mechanisms are established and funded in accordance with Rule 62-701-630, F.A.C. and 40 CFR Part 264 Subpart H as adopted by reference in Rule 62-701.630, F.A.C. shall be submitted to the Department sixty (60) days prior to the acceptance of any solid waste at the facility. All submittals in response to this specific condition shall be submitted to the Financial Coordinator, Solid Waste Section, Department of Environmental Protection, Twin Towers Office Building, 2600 Blair Stone Road, MS-4565, Tallahassee, Florida 32399-2400.

PERMITTEE:
Buttrey Development Two, LLC

Attention: Mr. John Buttrey

I.D. Number:
Permit/Certification Number: SC48-0165969-001 & SO48-0165969-002
Date of Issue:
Expiration Date: 1/22/2006

SPECIFIC CONDITIONS

46. Annual Cost Estimates and Financial Instrument Adjustments: The permittee shall, in addition to annually adjusting the closure and long-term care cost estimates, adjust the financial assurance mechanism to reflect an increase in cost estimates. Cost estimate adjustments shall be in accordance with Rule 62-701.630(4), F.A.C. Instrument adjustments shall be in accordance with Rule 62-701.630, F.A.C. and 40 CFR Part 264, Subpart H as adopted by reference in Rule 62-701.630, F.A.C. Documentation of financial mechanism increases shall be submitted to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, Twin Towers Office Building, 2600 Blair Stone Road, MS-4565, Tallahassee, Florida 32399-2400. All estimate update submittals shall be sent to: Department of Environmental Protection, Central District, Solid Waste Section, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.

ISSUED March 5, 2001

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Vivian F. Garfein
Director of District Management
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803

Department of Environmental Protection

Jeb Bush
Governor

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

David B. Struhs
Secretary

CERTIFIED
7099 3400 0010 0742 6374

Mr. John Buttrey
Buttrey Development Two, LLC
6239 Edgewater Drive, Suite D-1
Orlando, Florida 32810

OCD-SW-02-0029

Orange County - SW
Keene Road Disposal/
Buttrey Development, Class III Landfill
Revised Base Grade Elevation
Modification of Permit Nos. SC48-0165969-001
and SO48-0165969-002
Permit Application No. SO48-0165969-003

Dear Mr. Buttrey:

In response to the request submitted January 9, 2002, from Ed Chesney, P.E., Permit Nos. SC48-0165969-001 and SO48-0165969-002 are modified to establish the base grade elevation (lowest bottom elevation) of 66' NGVD on the west half of the landfill footprint, to conform with Orange County approval.

The information submitted January 7 and 9, 2002, on file at the Central District office, is made a part of the permits.

All other conditions of the subject permits remain unchanged, including Specific Condition 45, which states in part; "Proof that the financial mechanisms are established and funded in accordance with Rule 62-701-630, F.A.C. and 40 CFR Part 264 Subpart H as adopted by reference in Rule 62-701.630, F.A.C. shall be submitted to the Department sixty (60) days prior to the acceptance of any solid waste at the facility."

This letter must be attached to Permit Nos. SC48-0165969-001 and SO48-0165969-002 and becomes part of these permits.

Sincerely,

W. M. Bostwick, Jr., P.E.
Program Administrator
Waste Management

Date: JANUARY 29, 2002

WMB/gc/ew
cc: Richard Tedder, P.E. - DEP - Tallahassee
Ed Chesney, P.E.
James Becker - Orange County Utilities/Solid Waste Division
Orange County Environmental Protection Department

Department of Environmental Protection

Jeb Bush
Governor

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

David B. Struhs
Secretary

NOTICE OF PERMIT

In the matter of an
Application for Permit
by:

By E-Mail
bb@purplenet.net

Mr. John Buttrey
Buttrey Development Three, LLC
6239 Edgewater Drive, Suite D-1
Orlando, FL 32810

Orange County - SW
Keene Road Disposal/Buttrey Development, Class III, Landfill Expansion
Modification of Permit Nos. SC48-0165969-001 & SO48-0165969-002
Permit Application Nos. SC48-0165969-004 & SO48-0165969-005

Dear Mr. Buttrey:

Enclosed are Permit Numbers SC48-0165969-004 & SO48-0165969-005 (Modification of Permit Nos. SC48-0165969-001 & SO48-0165969-002), to modify the current Class III landfill construction and operation permit to incorporate the expansion of the landfill, issued under section(s) 403.061(14) and 403.707, of the Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit under section 120.68 of the Florida Statutes, by the filing of a Notice of Appeal under rule 9.110 of the Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000 and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this notice is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

William M. Bostwick, Jr., P.E. for

Vivian F. Garfein
Director, Central District
3319 Maguire Boulevard, Suite 232
Orlando, FL 32803
407/894-7555

Date: January 16, 2003

"More Protection, Less Process"

Printed on recycled paper.

FILING AND ACKNOWLEDGMENT

FILED, on this date, under section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

E. Williams

January 16, 2003

[Clerk] **[Date]**

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on January 16, 2003 to the listed persons.

VFG/gc/ew

Enclosure

Copies furnished to:
Richard Tedder, P.E. - DEP - Tallahassee
Fred Wick - DEP - Tallahassee
Ed Chesney, P.E. - Buttrey Development Three, LLC
bb@purplenet.net
James Becker - Orange County Solid Waste Division
Jim.Becker@ocfl.net
Orange County Environmental Protection Department
Len Kozlov, P.E. - DEP - Air Section, Central District

Department of Environmental Protection

Jeb Bush
Governor

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

David B. Struhs
Secretary

By E-Mail
bb@purplenet.net

Mr. John Buttrey
Buttrey Development Three, LLC
6239 Edgewater Drive, Suite D-1
Orlando, FL 32810

Orange County - SW
Keene Road Disposal/Buttrey Development, Class III, Landfill Expansion
Modification of Permit Nos. SC48-0165969-001 & SO48-0165969-002
Permit Application Nos. SC48-0165969-004 & SO48-0165969-005

Dear Mr. Buttrey:

Description of Facility:

The original permitted site for the Class III landfill is 60.53 acres and is owned by Buttrey Development Two, LLC. The expansion parcel is owned by Buttrey Development Three, LLC. With the original parcel and the expansion site, total site acreage is approximately 110 acres, of which 70 acres will be landfill footprint. Permit Numbers SC48-0165969-001 and SO48-0165969-002 for the Class III landfill issued March 5, 2001 are modified to include the expansion of the landfill.

Specific Conditions:

1. Information: The information submitted May 17, July 11, October 23, and November 15, 2002, concerning the expansion of the Keene Road Disposal/Buttrey Development, Class III Landfill on file at the Central District office, is made a part of this permit.

2. Monitoring Plan Implementation Schedule: A new monitoring plan implementation schedule (MPIS) which replaces the MPIS in Specific Condition No. 29 of Permit Nos. SC48-0165969-001 and SO48-0165969-002, attached as Exhibit I is made a part of this permit.

3. Operator Training Compliance: The Keene Road Disposal/Buttrey Development, Class III Landfill, shall comply with Rule 62-701.320(15), F.A.C. - Operator Training, which replaces Specific Condition No. 35 of Permit Nos. SC48-0165969-001 and SO48-0165969-002.

4. Solid Waste Disposal: The solid waste disposal rate for this source is 3500 cubic yards per day as stated in the application, which replaces Specific Condition No. 44 of Permit Nos. SC48-0165969-001 and SO48-0165969-002.

5. Landfill Elevation: The maximum design elevation including final cover for the 50 acre expansion area of the landfill shall not exceed elevation 160.0 feet NGVD based on an average site elevation of 100 feet.

6. Final Cover Drainage System: Drainage swales shall be incorporated in the final cover system to route and intercept surface water runoff. These swales along with a system of down chutes and drop inlets will convey the surface water runoff to adjacent dry detention areas.

7. Landfilling Limits - McQueen Road Wells: As shown on Exhibit A (revised Figure 7, Section II (Engineering Report)) the expansion footprint is divided in half. A fence running from north to south identifies this division. The purpose of the fence is to temporarily field denote (monument) the limits of any landfilling with respect to the McQueen Road wells, prior to installation of a County water line. This fence also provides a 50 foot access easement adjacent to the western limits of the interim landfill activities. Landfill activities will only occur 50 feet east of the fence until such time that a County water supply system is in place and the tie-in connections have been made. Referring back to Exhibit A, any potable well along McQueen Road is greater than 650 feet from the interim setback line.

8. Gas Management System: The permittee shall implement a gas management system to comply with Rule 62-701.730, F.A.C. which replaces Specific Condition No. 32 of Permit Nos. SC48-0165969-001 and SO48-0165969-002.

9. Prevention of Significant Deterioration (PSD) Requirements: The landfill owner or operator is not required to obtain any air construction permit unless landfill construction or any modification is subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. A landfill for which construction or modification is subject to PSD requirements must make application to the Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, for an air construction permit and must obtain such permit prior to beginning any construction or modification.

10. Title V Permit Requirements: The landfill owner or operator is not required to obtain any air operating permit unless the landfill is required to obtain a Title V air operating permit (Title V permit) pursuant to Section 403.0872, F.S. A landfill is required to obtain a Title V permit if the landfill (or the total facility, if the landfill is contiguous or part of a larger facility) has the potential to emit 10 TPY of any hazardous air pollutant, 25 TPY of any combination of hazardous air pollutants or 100 TPY of any other regulated air pollutant. A landfill is also required to obtain a Title V permit if the maximum design capacity as defined in 40 CFR 60, Subpart WWW, is equal or greater than 2.5 million Megagrams or 2.5 million cubic meters. Title V permits must be applied for in accordance with the timing and content requirements of Rule 62-204.800, F.A.C. and Chapter 62-213, F.A.C. Title V applications shall be submitted to the Central District Air Program Administrator.

11. 40 CFR 60 Requirements: The permittee shall comply with the requirements of 40 CFR 60, Subparts WWW and Cc, as adopted by reference at Rule 62-204.800, F.A.C. The permittee shall submit to the Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b).

12. Expansion Area Cells 5 through 8: Expansion areas Cells 5 through 8 shall not receive waste without prior Department approval of updated cost estimates for closure and long-term care covering the additional acreage and volume, and documentation of compliance with Specific Condition No. 15 of this modified permit.

13. Permitted Site Cells I through 4: Only Cells 1 through 4 of the permitted site shall be filled prior to submittal of the closure and long-term care costs for the expanded areas (Cells 5 through 8), and documentation of compliance with Specific Condition No. 15 of this modified permit.

14. Monuments: Monuments shall be installed at the landfill site to mark the limits of Cell 4 where it adjoins Cell 8 of the expansion site. A monument shall be installed at the southwest corner of Cell 4 within the limits of the permitted site, along with two additional monuments located to the north and east of the southwest corner. These three monuments shall delineate the limits of Cell 4 that adjoin Cell 8, which will allow for visual on-site inspections of waste placement between the original and expansion areas. No waste shall be placed outside these markers prior to acceptance of and execution of a new financial mechanism.

15. Financial Responsibility: A modified financial mechanism, approved by the Department's Financial Coordinator, shall be in place 60 days prior to placement of waste in the expansion areas (Cells 5 through 8).

All other conditions of the subject permit remain unchanged.

This letter must be attached to Permit Nos. SC48-0165969-001 & SO48-0165969-002 and becomes part of that permit.

Sincerely,

William M. Bostwick, Jr., P.E. for

Vivian F. Garfein, Director
Central District
Department of Environmental Protection
3319 Maguire Boulevard, Suite 232
Orlando, FL 32803
407/894-7555

Date: January 16, 2003

VFG/gc/ew

Department of Environmental Protection

Jeb Bush
Governor

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

David B. Struhs
Secretary

By E-Mail
bb@purplenet.net

Mr. John Buttrey
Buttrey Development Three, LLC
6239 Edgewater Drive, Suite D-1
Orlando, Florida 32810

OCD-SW-02-0436

Orange County - SW
Keene Road Disposal/Buttrey Development, Class III
Implementation of Approved Monitoring Plan-Minor Modification
Modification of Permit Nos. SC48-0165969-001 & SO48-0165969-002
Permit Application No. SO48-0165969-006

Dear Mr. Buttrey:

In response to the request from Ed Chesney, P.E. of Buttrey Development Three, LLC, submitted November 8, 2002, the approved Monitoring Plan for the above referenced landfill shall be implemented and the required reports shall be provided to the Department 90 days before waste is to be received at the site.

The information submitted November 8, 2002, on file at the Central District office, is made a part of the subject permit.

All other conditions of the subject permit remain unchanged.

This letter must be attached to Permit Nos. SC48-0165969-001 and SO48-0165969-002 and becomes part of that permit.

Sincerely,

W. M. Bostwick, Jr., P.E.
Waste Program Administrator

Date: Dec. 3, 2002

WMB/gc/ew
cc: Richard Tedder, P.E. - DEP - Tallahassee
Ed Chesney, P.E. - Buttrey Development Three, LLC
bb@purplenet.net
James Becker - Orange County Solid Waste Division
jim.becker@ocfl.net
Orange County Environmental Protection Department

Department of Environmental Protection

Jeb Bush
Governor

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Colleen Castille
Secretary

By E-Mail
ccampagna@wm.com

Mr. Charles J. Campagna
Waste Management, Inc. of Florida
255 W. Keene Road
Apopka, Florida 32703

OCD-SW-04-0098

Orange County – SW
Keene Road Disposal/Buttrey Development, Class III Landfill
Transfer of Permit
Modification of Permit Nos. SC48-0165969-001 & SO48-0165969-002
Permit Application No. SC48-0165969-007

Dear Mr. Campagna:

The ownership of Permit Nos. SC48-0165969-001 & SO48-0165969-002 are transferred as follows: The owner is changed:

From:
John Buttrey
Buttrey Development Two, LLC
6239 Edgewater Drive, Suite D-1
Orlando, FL 32810

To:
Charles J. Campagna
Waste Management, Inc. of Florida
255 West Keene Road
Apopka, FL 32703

Pursuant to the Application for Transfer of Permit executed and sworn to, by you, you must comply with the terms and conditions of the permit and assume the rights and liabilities contained therein.

All other conditions of the subject permits remain unchanged, including Specific Condition 45, which states in part; "Proof that the financial mechanisms are established and funded in accordance with Rule 62-701.630, F.A.C. and 40 CFR Part 264 Subpart H as adopted by reference in Rule 62-701.630, F.A.C. shall be submitted to the Department sixty (60) days prior to the acceptance of any solid waste at the facility."

This letter must be attached to Permit Nos. SC48-0165969-001 & SO48-0154969-002 and becomes part of these permits.

Sincerely,

F. Thomas Lubozynski, P.E./CIH
Waste Program Administrator

Date: 03/08/04

FTL/gc/ew

cc: Richard Tedder, P.E. – DEP – Tallahassee
Fred Wick – DEP – Tallahassee
John Buttrey, Buttrey Development Two, LLC bishopbuttrey@cfl.rr.com
James Becker – Orange County Utilities/Solid Waste Division jim.becker@ocfl.net
Orange County Environmental Protection Department

Department of Environmental Protection

FLORIDA

Jeb Bush
Governor

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Colleen Castille
Secretary

NOTICE OF PERMIT

By E-Mail
ccampagna@wm.com

In the matter of an
Application for Permit
by:

Mr. Charles J. Campagna
Waste Management, Inc. of Florida
255 W. Keene Road
Apopka, FL 32703

OCD-SW-05-0332

Orange County - SW
Keene Road Disposal/Buttrey Development, Class III, Landfill Expansion (BD4)
Modification of Permit No. SC48-0165969-007
Permit Application Nos. SC48-0165969-008 & SO48-0165969-009

Dear Mr. Campagna:

Enclosed are Permit Numbers SC48-0165969-008 & SO48-0165969-009 (Modification of Permit No. SC48-0165969-007), to modify the current Class III landfill permit to incorporate the expansion of the landfill, issued under Section(s) 403.061(14) and 403.707, of the Florida Statutes.

At the request of the Engineer of Record, and to make this permit consistent with the Environmental Resource Permit Application, Specific Condition 6 has been modified to require that solid waste shall not be placed below elevation 75 feet NGVD rather than 73 feet NGVD. Specific Condition 6 now reads as follows:

6. Final Grade Plan: The final grade plan is shown on Sheet 3 of 5 of the construction plans submitted with the permit application referenced as No. 1 of the documents listed in Appendix A. Solid waste shall not be placed below elevation **75** feet NGVD. The maximum elevation including final cover shall not exceed an elevation of 50 feet above existing site grades.

Any party to this order (permit) has the right to seek judicial review of the permit under section 120.68 of the Florida Statutes, by the filing of a Notice of Appeal under rule 9.110 of the Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000 and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this notice is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Vivian F. Garfein
Director, Central District
3319 Maguire Boulevard, Suite 232
Orlando, FL 32803
407/894-7555

Date: August 3, 2005

FILING AND ACKNOWLEDGMENT

FILED, on this date, under section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

E. Williams

Clerk

Aug. 3, 2005

Date

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on Aug. 3, 2005 to the listed persons.

E. Williams

Clerk

VFG/gc/ew

Enclosure

Copies furnished to:
Richard Tedder, P.E. - DEP - Tallahasseee
Fred Wick - DEP - Tallahassee
John Buttrey - Buttrey Development Four, LLC bishopbuttrey@cfl.rr.com
Ed Chesney, P.E. - Buttrey Development Four, LLC bishopbuttrey@cfl.rr.com
R. Jay Davoll, P.E. - Community Development Dept., City of Apopka jdavoll@apopka.net
Ray Hanson, Wastewater Div. Mgr., Orange County Utilities,
Water Reclamation Division ray.hanson@ocfl.net

Department of Environmental Protection

Jeb Bush
Governor

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Colleen Castille
Secretary

By E-Mail
ccampagna@wm.com

Mr. Charles J. Campagna
Waste Management, Inc. of Florida
255 W. Keene Road
Apopka, FL 32703

Orange County - SW
Keene Road Disposal/Buttrey Development, Class III, Landfill Expansion (BD4)
Modification of Permit No. SC48-0165969-007
DEP File Nos. SC48-0165969-008 & SO48-0165969-009

Dear Mr. Campagna:

Description of Facility:

The area of the originally permitted site is 110 acres (BD2 and BD3). This permit modification includes an expansion (BD4) of an additional 40 acres contiguous to the BD3 parcel. With the original parcel and the expansion site, total site acreage is approximately 150 acres, of which approximately 102 acres will be used for disposal of Class III solid waste.

The BD3 parcel, as currently permitted by the Department, is a 60-foot high rise. As part of this permit application, the BD3 parcel is modified to a 50-foot high rise. This reduction in elevation allows the landfill to comply with the City of Apopka's Solid Waste Ordinance and permitting requirements.

Permit No. SC48-0165969-007 is modified to include the expansion of the landfill.

Specific Conditions:

1. Information: The information submitted concerning the expansion of the Keene Road Disposal/Buttrey Development, Class III Landfill (BD4) on file at the Central District office, is made a part of this permit. The documents are listed in Appendix A.

2. Zone of Discharge: The zone of discharge for the facility shall be a three dimensional volume, defined in the horizontal plane as extending 100 feet from the edge of the solid waste deposit, or to the property boundary, whichever is less, as depicted in Attachment B of the MPIS (Exhibit II) of this permit, and defined in the vertical plane as extending from the top of the ground to the base of the surficial aquifer (water table aquifer), as depicted on Exhibit I of this permit. Class G-II water quality standards must be met at the boundary of the zone of discharge in accordance with Rule 62-522.410, F.A.C.

3. Monitoring Plan Implementation Schedule: A new Monitoring Plan Implementation Schedule (MPIS) which replaces the MPIS in Specific Condition No. 29 of Permit Nos. SC48-0165969-001 and SO48-0165969-002, attached as Exhibit II, is made part of this permit.

"More Protection, Less Process"

Printed on recycled paper.

4. Operator Training Compliance: The Keene Road Disposal/Buttrey Development, Class III Landfill, shall comply with Rule 62-701.320(15), F.A.C. - Operator Training, which replaces Specific Condition No. 35 of Permit Nos. SC48-0165969-001 and SO48-0165969-002.

5. Solid Waste Disposal: The solid waste disposal rate for this landfill is 5,000 cubic yards per day as stated in the application received June 17, 2004, which replaces Specific Condition No. 44 of Permit Nos. SC48-0165969-001 and SO48-0165969-002. Actual operating rates may vary depending upon business conditions.

6. Final Grade Plan: The final grade plan is shown on Sheet 3 of 5 of the construction plans submitted with the permit application referenced as No. 1 of the documents listed in Appendix A. Solid waste shall not be placed below elevation 75 feet NGVD. The maximum elevation including final cover shall not exceed an elevation of 50 feet above existing site grades.

7. Final Cover Drainage System: Drainage swales shall be incorporated in the final cover system to route and intercept surface water runoff. These swales along with a system of down chutes and drop inlets will convey the surface water runoff to adjacent dry detention areas.

8. Gas Management System: The permittee shall implement a gas management system to comply with Rule 62-701.730, F.A.C. which replaces Specific Condition No. 32 of Permit Nos. SC48-0165969-001 and SO48-0165969-002.

9. Cells 5 Through 12: Expansion area Cells 5 through 8 and 9 through 12 shall not receive waste without prior Department approval of updated cost estimates for closure and long-term care covering the additional acreage and volume. To make certain that cells 5 through 12 do not receive waste prior to Department approval, the permittee shall comply with the following conditions:

(a) Only Cells 1 through 4 of the permitted site shall be filled prior to submittal, review, and Department approval of the closure and long-term costs for the expanded areas [Cells 5 through 8 (BD3) and Cells 9 through 12 (BD4)], and approval of the fully funded financial mechanism by the Department's financial coordinator, as noted below.

(b) Monuments shall be installed along the south end of BD3 to clearly delineate the limits of Cell 4 where it adjoins the BD3 site. These monuments must allow for visual onsite inspection of waste placement between the original and expansion areas. The monuments must be clearly marked with the words "limit of waste," and easily identifiable to operation personnel and regulatory inspectors. No waste shall be placed outside these markers prior to acceptance of and execution of a new financial mechanism and documentation of compliance with Specific Condition 10 of this modified permit.

10. Financial Responsibility: A modified financial mechanism, approved by the Department's Financial Coordinator, shall be in place 60 days prior to placement of waste in the expansion areas BD3 and BD4 (Cells 5 through 12).

All other conditions of the subject permit remain unchanged.

This letter must be attached to Permit No. SC48-0165969-007 and becomes part of that permit. The new Permit Nos. are SC48-0165969-008 and SO48-0165969-009.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Vivian F. Garfein
Director, Central District
3319 Maguire Blvd., Suite 232
Orlando, FL 32803
407/894-7555

Date: August 3, 2005

FILING AND ACKNOWLEDGMENT

FILED, on this date, under Section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

Aug. 3, 2005
Date

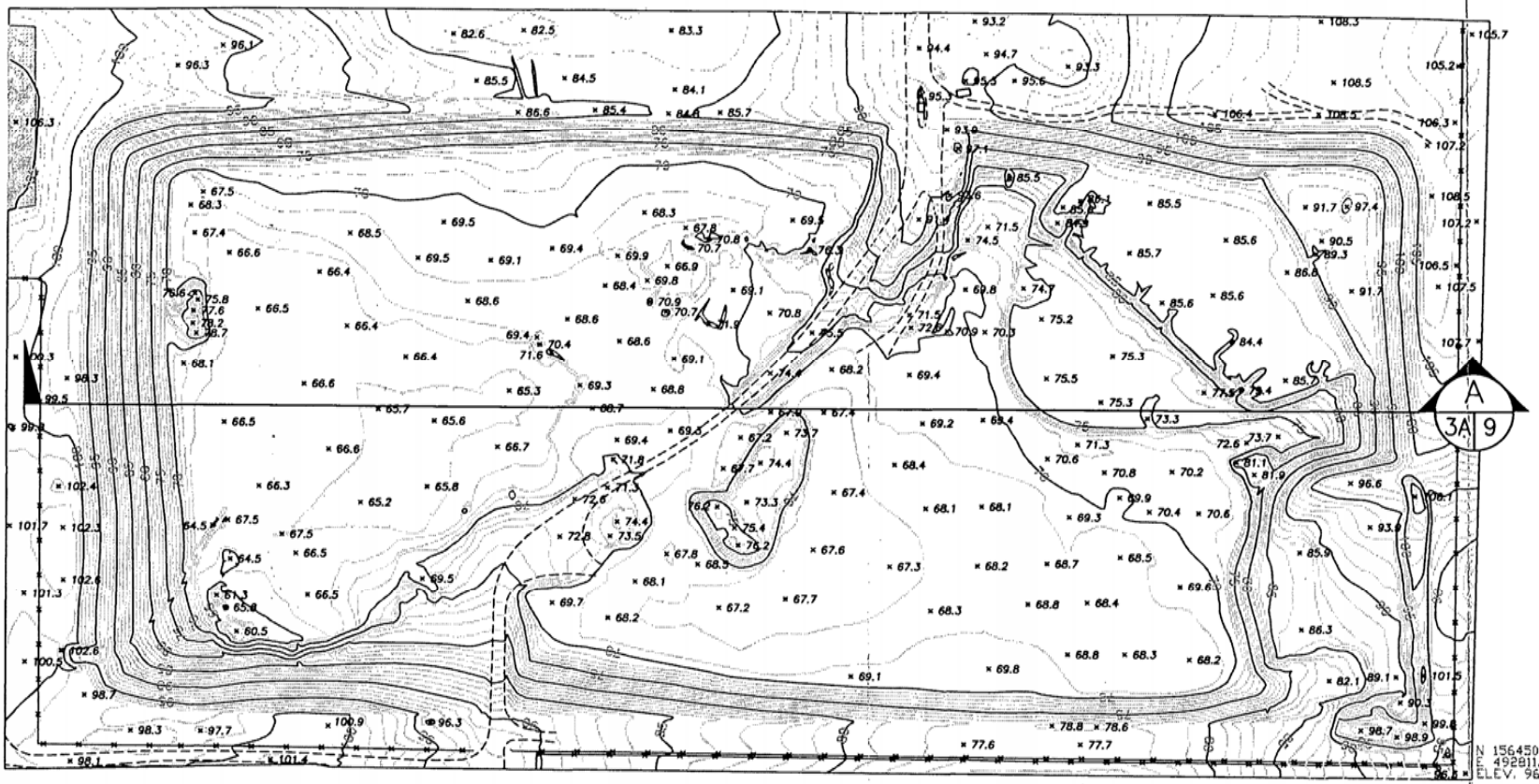
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on August 3, 2005 to the listed persons.

Clerk

APPENDIX B

ENGINEERING DRAWINGS



N

0 200

1" = 200'

LEGEND:

(THESE FEATURES ARE REPRESENTED BY SYMBOLS NOT TO SCALE)

- CONTROL
- CONCRETE PAD

(THESE FEATURES ARE TO SCALE)

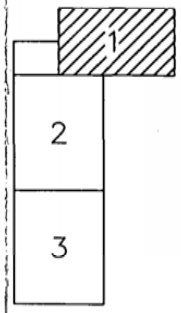
- UNPAVED SURFACE
- PAVED SURFACE
- GUARDRAIL
- FENCE
- EDGE OF WATER
- TREE LINE
- SHRUB LINE
- CONCRETE SURFACE
- OBSCURED CONTOUR
- DEPRESSION CONTOUR

(THESE INFORMATIVE LABELS ARE NOT SCALE DEPENDENT)

- W.E. WATER ELEVATION
- ×106.6 TYPICAL SPOT ELEVATION
- ×107.8 OBSCURED SPOT ELEVATION
- —90— EXISTING CONTOUR

TOPOGRAPHY BY: PICKETT AERIAL SURVEYS
A DIVISION OF PICKETT & ASSOCIATES, INC.

DATE OF TOPOGRAPHY: APRIL 22, 2004

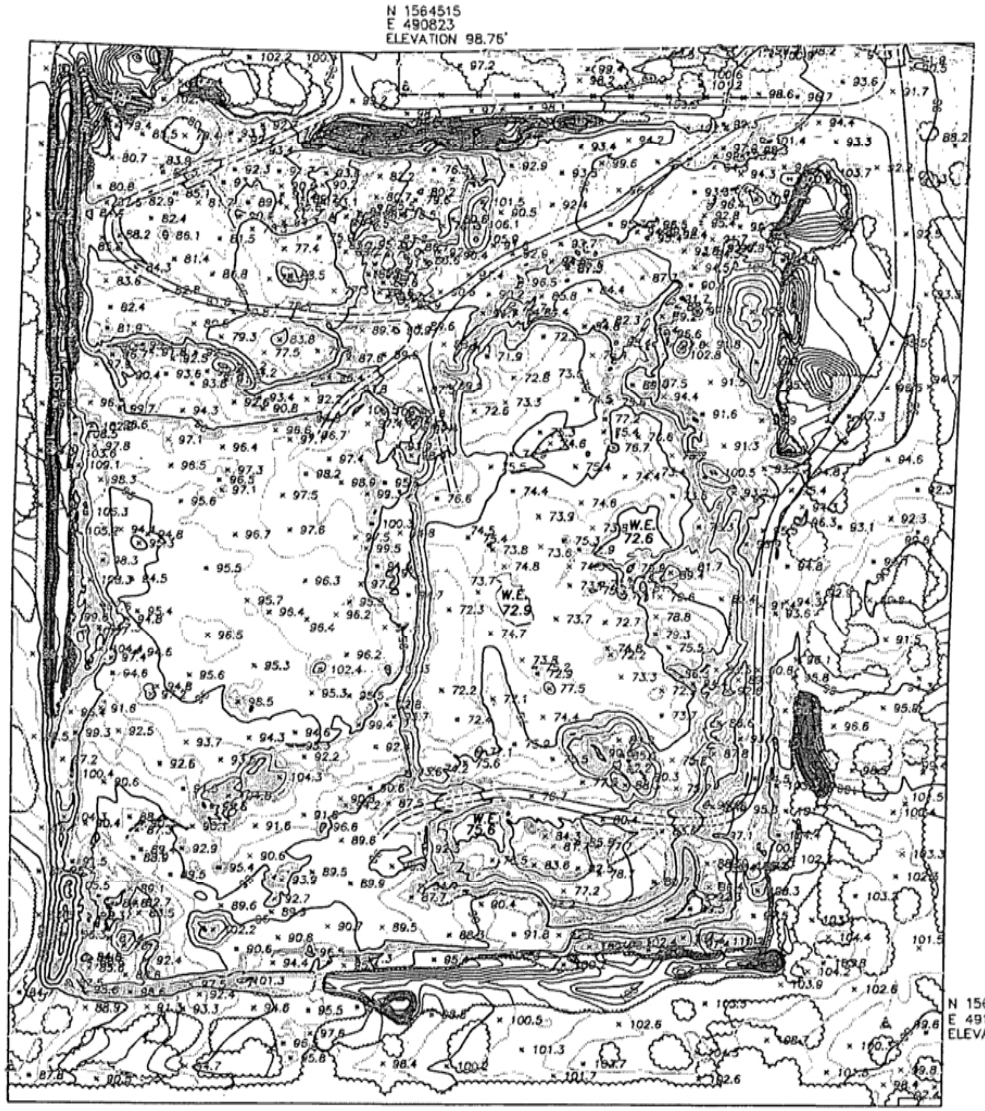


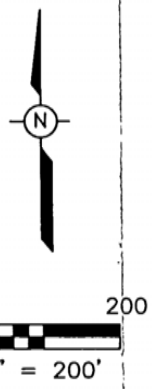
SURVEYOR's NOTES:

1.) North, the grid, and the coordinates shown hereon are referenced to East Zone of the Florida State Plane Coordinate System, NAD 83, 1990 adjustment. Orange County horizontal control stations GIS 0113, GIS 0474, and GIS 0478 were held as control.

2.) Elevations are to National Geodetic Vertical Datum of 1929 and are based on Orange County benchmarks 4-GAF, B082033, and B073055.

3.) This topographic survey was prepared by photogrammetric methods. See the attached report for map accuracy and surveyor's signature and seal. This map is limited to those features visible on aerial photography.





LEGEND:

(THESE FEATURES ARE REPRESENTED BY SYMBOLS NOT TO SCALE)

- CONTROL
- CONCRETE PAD

(THESE FEATURES ARE TO SCALE)

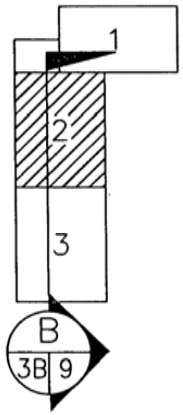
- PAVED SURFACE
- PAVED SURFACE
- GUARDRAIL
- FENCE
- EDGE OF WATER
- TREE LINE
- SHRUB LINE
- CONCRETE SURFACE
- OBSCURED CONTOUR
- DEPRESSION CONTOUR

(THESE INFORMATIVE LABELS ARE NOT SCALE DEPENDENT)

- W.E. WATER ELEVATION
- 106.6 TYPICAL SPOT ELEVATION
- 102.8 OBSCURED SPOT ELEVATION
- 90 EXISTING CONTOUR

TOPOGRAPHY BY: PICKETT AERIAL SURVEYS
A DIVISION OF PICKETT & ASSOCIATES, INC.

DATE OF TOPOGRAPHY: OCTOBER 09, 2003



SURVEYOR's NOTES:

1.) North, the grid, and the coordinates shown hereon are referenced to East Zone of the Florida State Plane Coordinate System, NAD 83, 1990 adjustment. Orange County horizontal control stations GIS 0113, GIS 0474, and GIS 0478 were held as control.

2.) Elevations are to National Geodetic Vertical Datum of 1929 and are based on Orange County benchmarks 4-GAF, B082033, and B073055.

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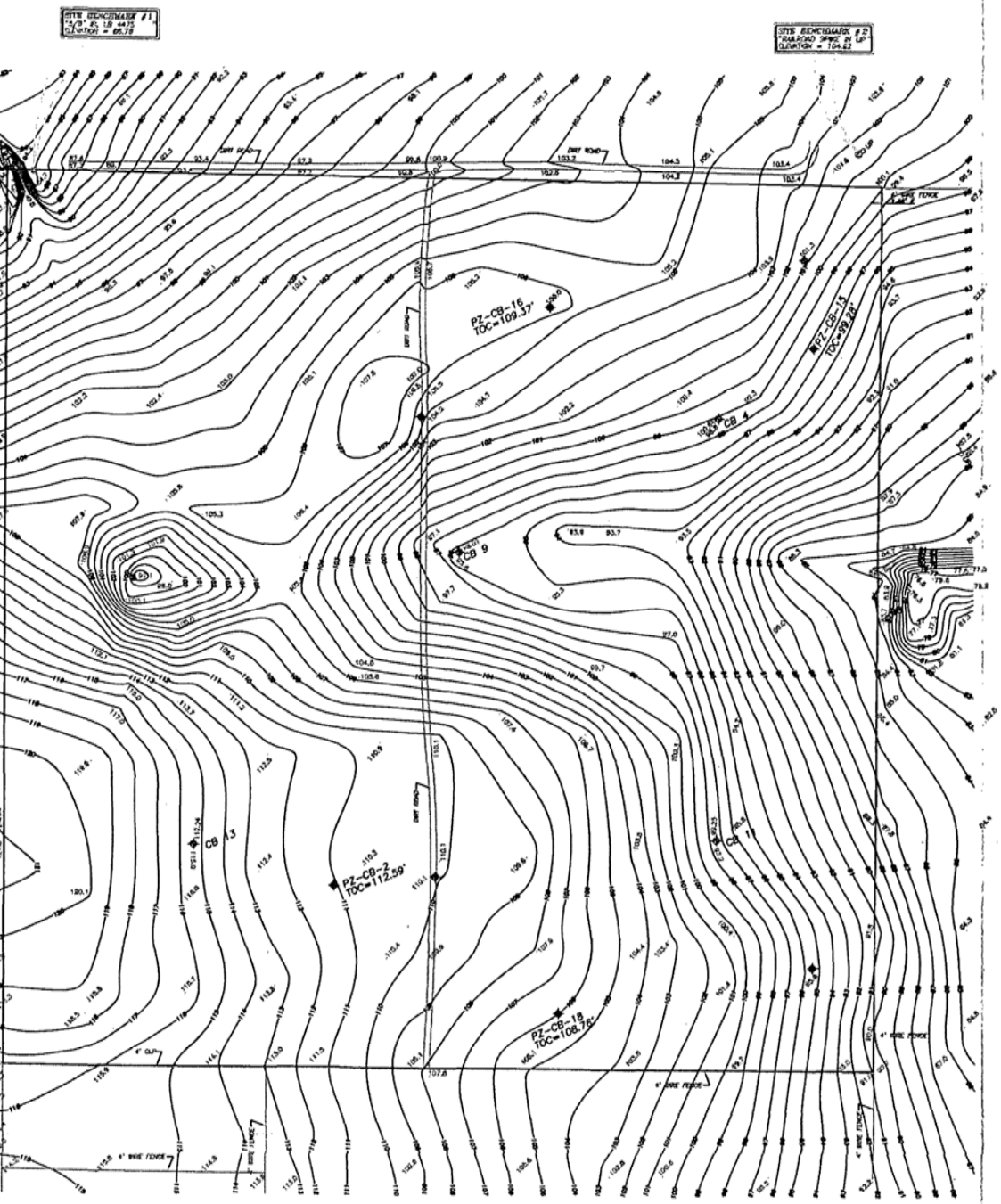


BOUNDARY SURVEY AND LIMITED TOPOGRAPHY BY: ACCURIGHT SURVEYS

DATE OF BOUNDARY SURVEY AND TOPOGRAPHY: JUNE 16, 2003

THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 28, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA. (LESS THE WEST 30 FEET FOR ROAD)

NOTES:

1. BEARING STRUCTURE BASED ON EAST LINE OF THE SOUTHEAST 1/4 OF SECTION 28-21-28 BEING: S00°12'52"W.

2. THIS SURVEY REFLECTS ONLY MATTERS OF RECORD AS PROVIDED BY THE CLIENT OR CLIENTS REPRESENTATIVE.

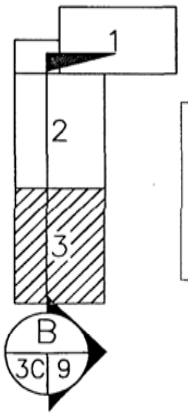
3. THIS SURVEY WAS MADE ON THE GROUND. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

4. THIS SITE IS NOT IN A FLOOD PRONE AREA, IT IS IN ZONE X, AN AREA OF MINIMAL FLOODING BASED ON FLOOD INSURANCE RATE MAP, PANEL NO. 120179 0120 E, HAVING AN EFFECTIVE DATE OF 12-6-00, ORANGE COUNTY, FLORIDA.

5. ELEVATIONS BASED ON NATIONAL GEODETIS VERTICAL DATUM, 1929, GEOLOGICAL SURVEY BM # 4 BEING 114.62 FEET, (NGVD 29).

6. ACCORDING TO FLORIDA STATUTES, CHAPTER 472.025, A LAND SURVEYOR SHALL NOT AFFIX HIS SEAL OR NAME TO ANY PLAN OR DRAWING WHICH DEPICTS WORK WHICH HE IS NOT LICENSED TO PERFORM OR WHICH IS BEYOND HIS PROFESSION OR SPECIALTY THEREIN. THEREFORE, WE ARE UNABLE TO CERTIFY AS TO MUNICIPAL ZONING COMPLIANCE, INTERPRETATION OF ZONING CODES OR THE DETERMINATION OF VIOLATIONS THEREOF.

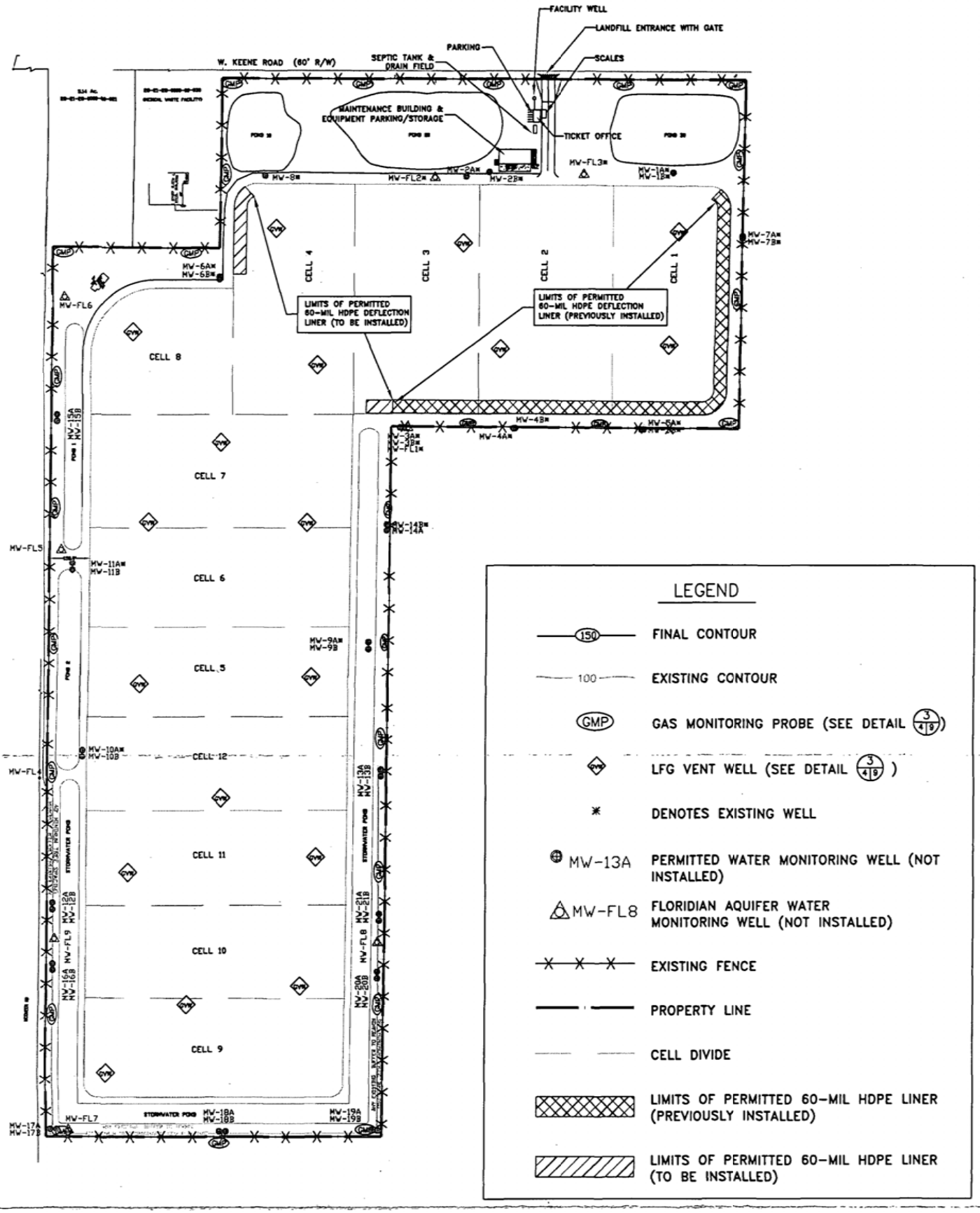
7. THIS SURVEY MADE WITHOUT BENEFIT OF COMMITMENT FOR TITLE.

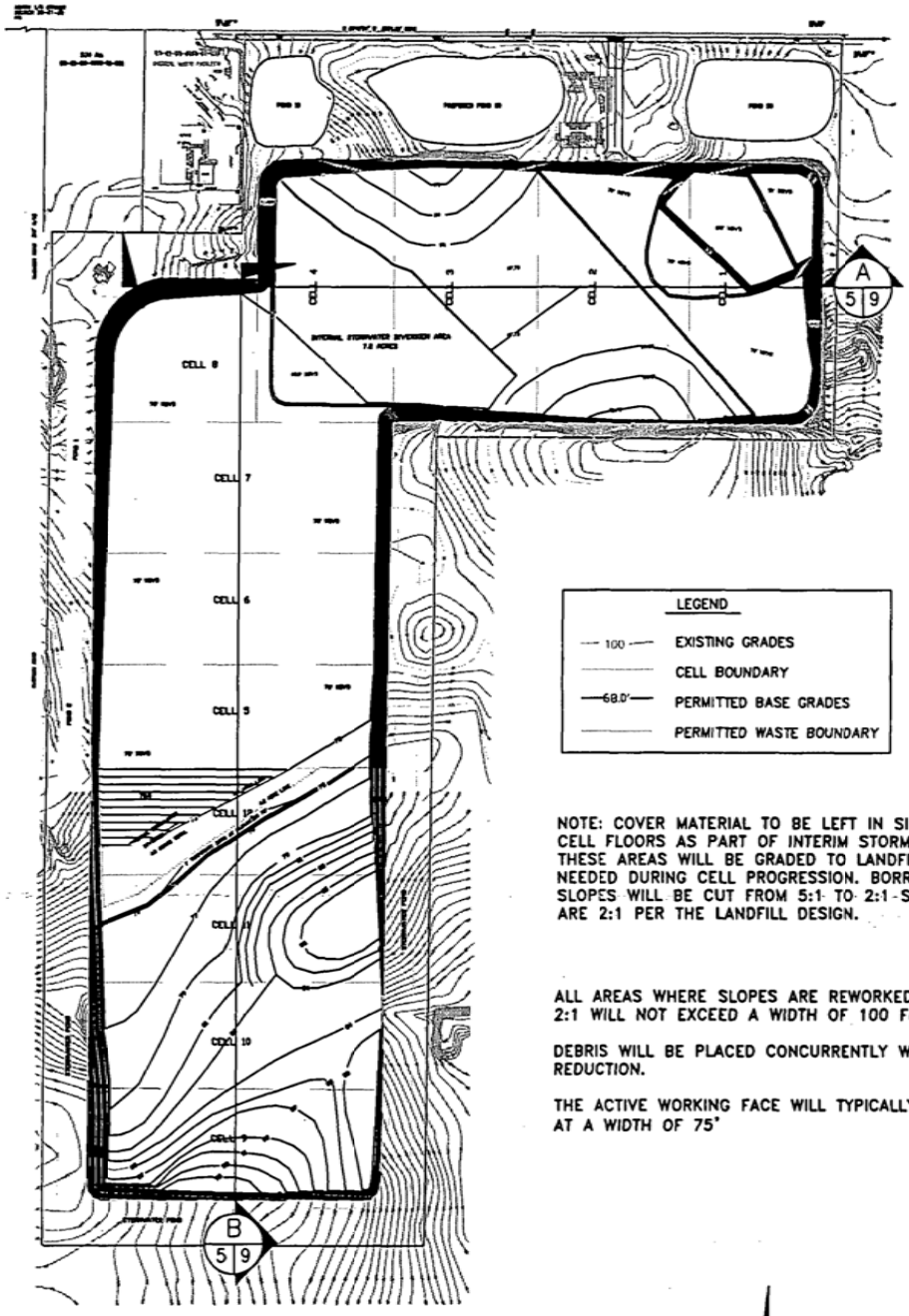


LEGEND:

(THESE FEATURES ARE REPRESENTED BY SYMBOLS NOT TO SCALE)		(THESE FEATURES ARE TO SCALE)	
△	CONTROL	-x-x-	FENCE
▫	CONCRETE PAD	+104.6	TYPICAL SPOT ELEVATION
—90—	EXISTING CONTOUR		

THERE HAS BEEN NO SUBSTANTIAL CHAN
SITE SINCE THE DATE OF THE TOPOGRAP


FACILITY WELL
LANDFILL ENTRANCE WITH GATE
PARKING
SCALES
W. KEENE ROAD (60' R/W)
SEPTIC TANK & DRAIN FIELD
MAINTENANCE BUILDING & EQUIPMENT PARKING/STORAGE
TICKET OFFICE
MW-8
MW-FL2
MW-2A
MW-2B
MW-FL3
MW-1A
MW-1B
MW-7A
MW-7B
MW-6A
MW-6B
MW-FL6
CELL 4
CELL 3
CELL 2
CELL 1
LIMITS OF PERMITTED 60-MIL HDPE DEFLECTION LINER (TO BE INSTALLED)
LIMITS OF PERMITTED 60-MIL HDPE DEFLECTION LINER (PREVIOUSLY INSTALLED)
CELL 8
MW-4B
MW-4A
MW-5A
MW-3A
MW-3B
MW-FL1
MW-15A
MW-15B
CELL 7
MW-14B
MW-14A
MW-FL5
MW-11A
MW-11B
CELL 6
MW-9A
MW-9B
CELL 5
MW-10A
MW-10B
CELL 12
MW-FL4
MW-13A
MW-13B
CELL 11
MW-12A
MW-12B
MW-FL9
MW-16A
MW-16B
MW-21A
MW-21B
MW-FL8
MW-20A
MW-20B
CELL 10
CELL 9
MW-FL7
MW-18A
MW-18B
MW-19A
MW-19B
MW-17A
MW-17B
STORMWATER POND
LEGEND
150 FINAL CONTOUR
100 EXISTING CONTOUR
GMP GAS MONITORING PROBE (SEE DETAIL 3/4|9)
LFG VENT WELL (SEE DETAIL 3/4|9)
DENOTES EXISTING WELL
MW-13A PERMITTED WATER MONITORING WELL (NOT INSTALLED)
MW-FL8 FLORIDIAN AQUIFER WATER MONITORING WELL (NOT INSTALLED)
EXISTING FENCE
PROPERTY LINE
CELL DIVIDE
LIMITS OF PERMITTED 60-MIL HDPE LINER (PREVIOUSLY INSTALLED)
LIMITS OF PERMITTED 60-MIL HDPE LINER (TO BE INSTALLED)
N
0
400



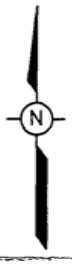
LEGEND	
100	EXISTING GRADES
	CELL BOUNDARY
68.0'	PERMITTED BASE GRADES
	PERMITTED WASTE BOUNDARY

NOTE: COVER MATERIAL TO BE LEFT IN SIDE SLOPES AND CELL FLOORS AS PART OF INTERIM STORMWATER CONTROL. THESE AREAS WILL BE GRADED TO LANDFILL DESIGN AS NEEDED DURING CELL PROGRESSION. BORROW PIT SIDE SLOPES WILL BE CUT FROM 5:1 TO 2:1 SLOPES AS SHOWN ARE 2:1 PER THE LANDFILL DESIGN.

ALL AREAS WHERE SLOPES ARE REWORKED FROM 5:1 TO 2:1 WILL NOT EXCEED A WIDTH OF 100 FEET.

DEBRIS WILL BE PLACED CONCURRENTLY WITH THE SLOPE REDUCTION.

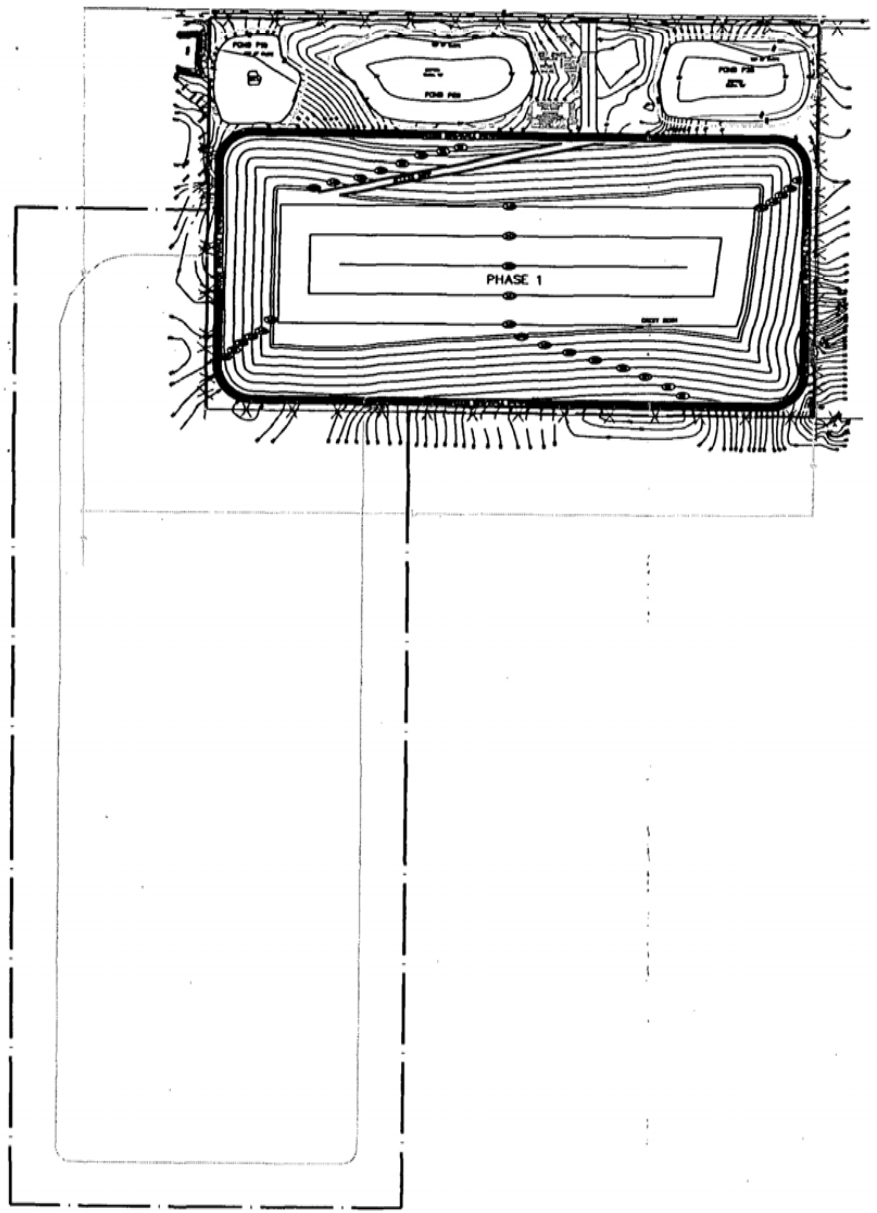
THE ACTIVE WORKING FACE WILL TYPICALLY BE MAINTAINED AT A WIDTH OF 75'



0 500

1" = 500'

S2LI CERITIFIES THAT THE INFORMATION PROVIDED ON THIS DRAWING REPRESENTS THE PERMITTED BASE GRADES THAT ARE ON FILE WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION. NO CHANGES ARE PROPOSED TO THE BASE GRADES WITH THIS PERMIT RENEWAL APPLICATION.



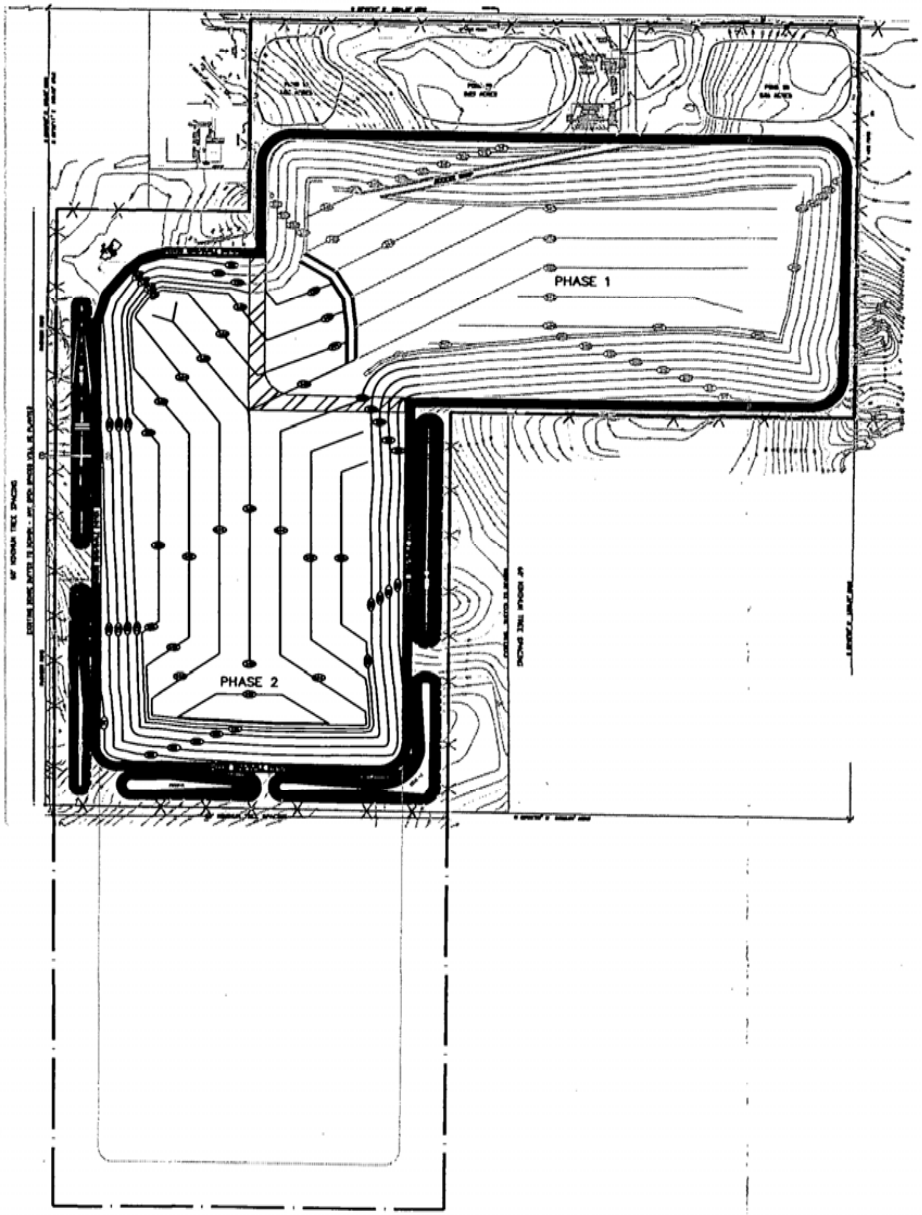
LEGEND

- FINAL CONTOUR
- EXISTING CONTOUR
- PROPERTY LINE
- PERMITTED WASTE BOUNDARY
- ACCESS ROAD/SWALE SYSTEM
- PERIMETER FENCE

N

0 500

1" = 500'



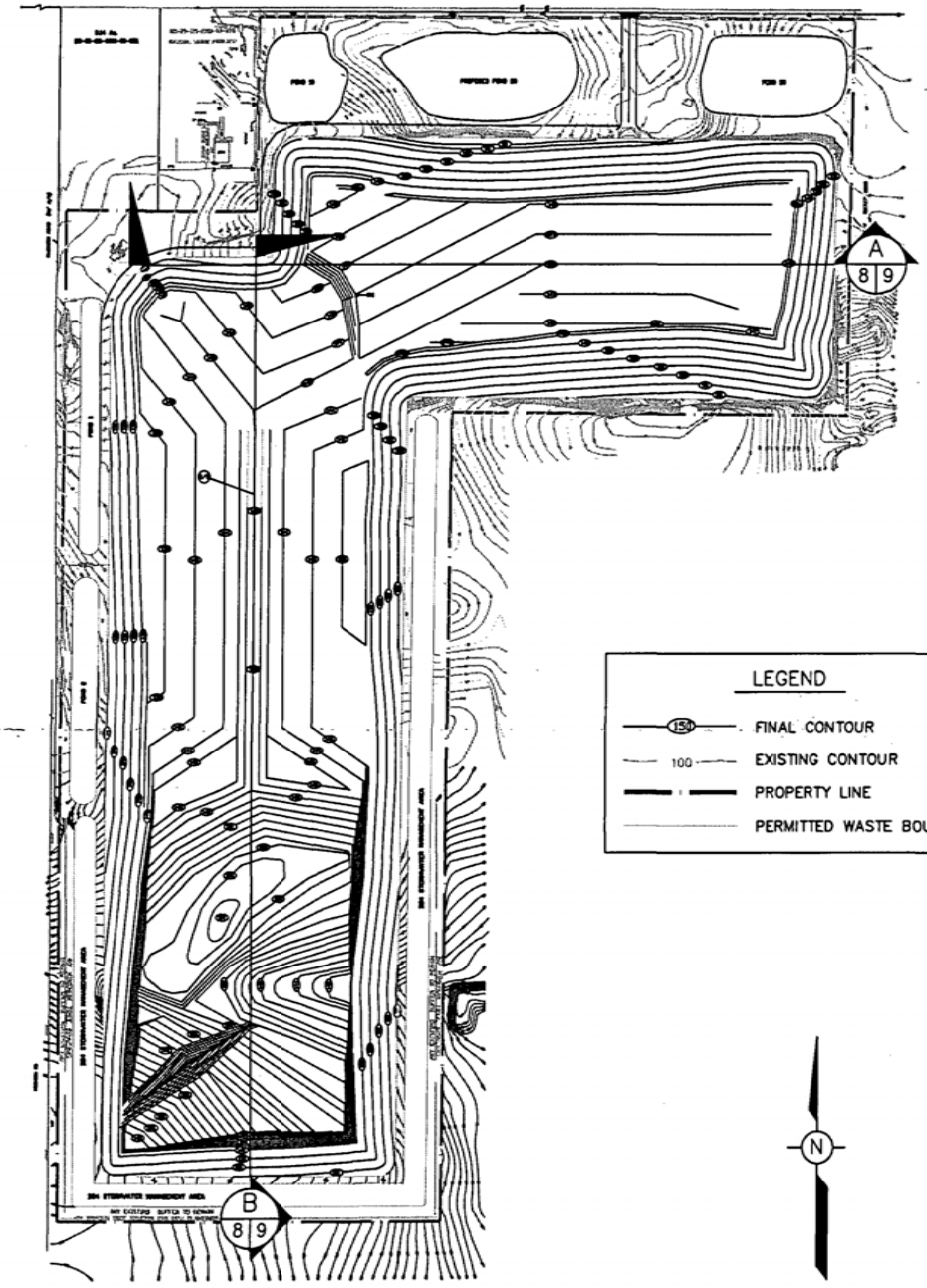
LEGEND

- FINAL CONTOUR
- EXISTING CONTOUR
- EXPANSION TIE-IN AREA
- PROPERTY LINE
- PERMITTED WASTE BOUNDARY
- ACCESS ROAD/SWALE SYSTEM
- PERIMETER FENCE

N

0 500

1" = 500'



LEGEND

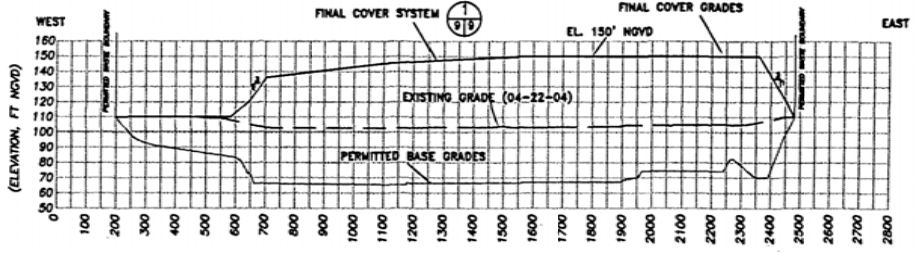
- 150 — FINAL CONTOUR
- 100 — EXISTING CONTOUR
- PROPERTY LINE
- PERMITTED WASTE BOUNDARY

N

0 500

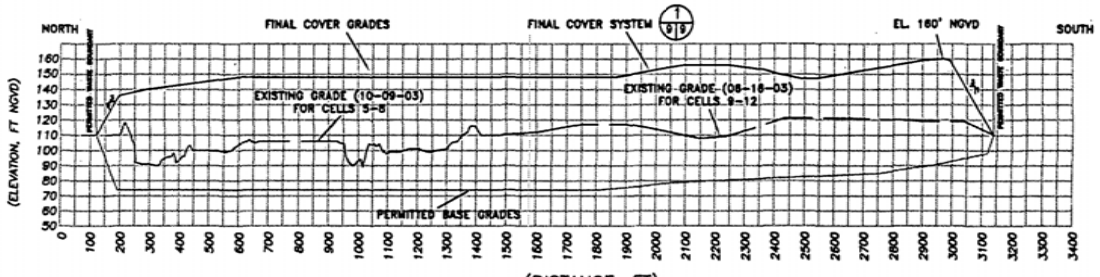
1" = 500'

S2LI CERITIFIES THAT THE INFORMATION PROVIDED ON THIS DRAWING IS CONSISTENT WITH THE PERMITTED FINAL GRADES THAT ARE ON FILE WITH THE



WEST–EAST CROSS–SECTION
HORIZONTAL SCALE 1" = 500'
VERTICAL SCALE 1" = 100'

A 3A/9 A 5/9 A 8/9



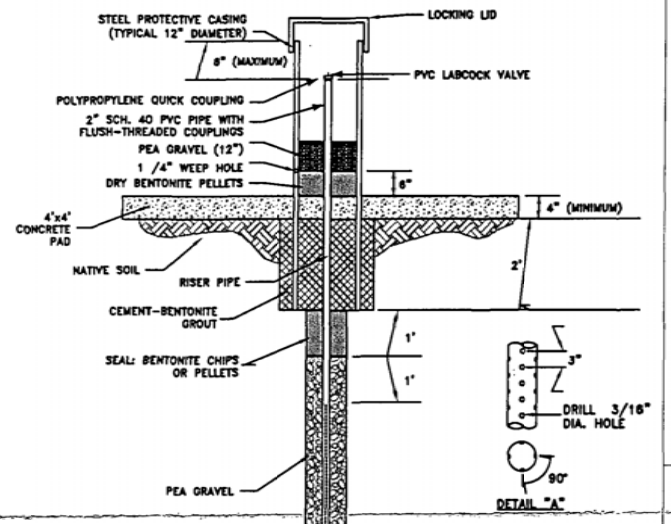
NORTH–SOUTH CROSS–SECTION
HORIZONTAL SCALE 1" = 500'
VERTICAL SCALE 1" = 100'

B 3B/9 B 3C/9 B 5/9 B 8/9

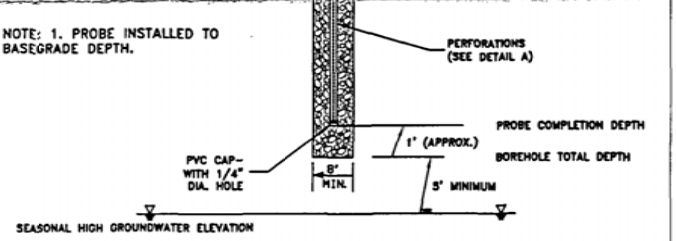
LEGEND

- PERMITTED FINAL COVER GRADES
- EXISTING GRADES
- PERMITTED BASE GRADES

ABOVE GROUND SURFACE ASSEMBLY

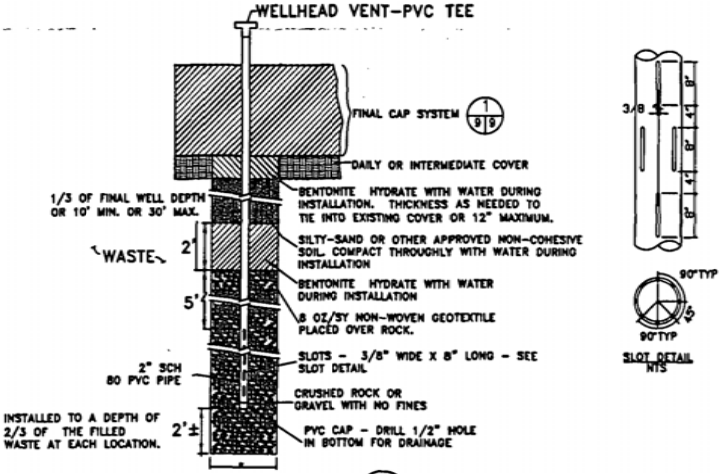


NOTE: 1. PROBE INSTALLED TO BASEGRADE DEPTH.



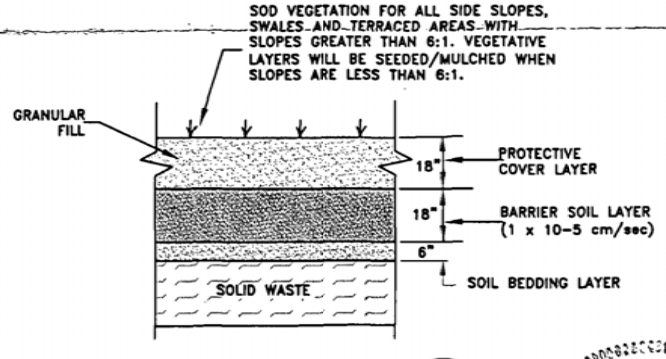
TYPICAL LFG MONITORING PROBE 3/4/9
NTS

WELLHEAD VENT–PVC TEE

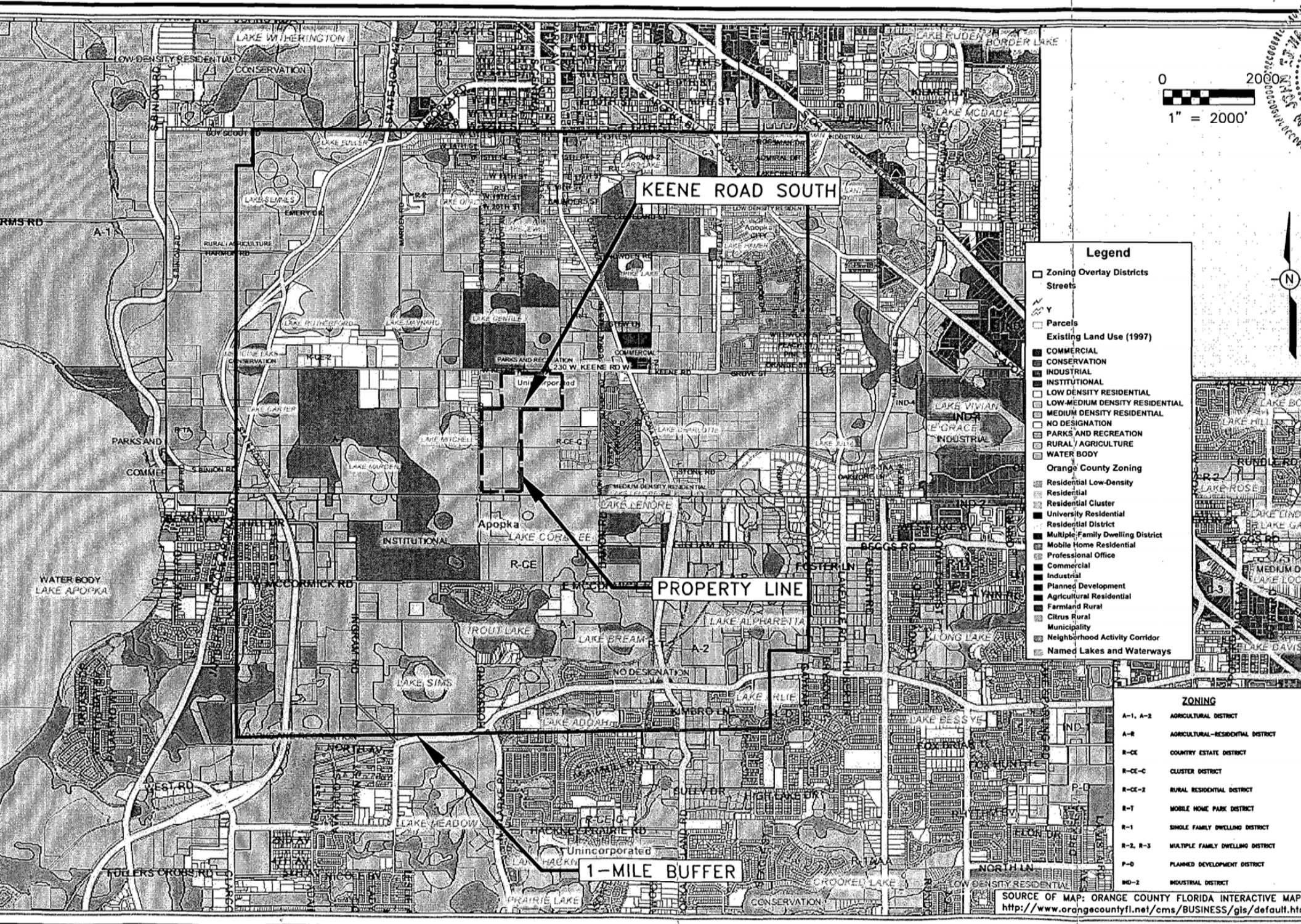


TYPICAL LFG VENT WELL 2/4/9
NTS

NOTES:
1. WELL LOCATIONS ARE APPROXIMATE AND MAY BE ADJUSTED BY PROJECT ENGINEER OR PROJECT MANAGER TO ACCOMMODATE FIELD CONDITIONS AND FACILITATE CONSTRUCTION.
2. WELL DEPTHS ARE APPROXIMATE AND LISTED FOR REFERENCE ONLY. DO NOT DRILL TO THESE DEPTHS. ACTUAL WELL DEPTHS TO BE COMPUTED AND PROVIDED BY PROJECT ENGINEER BASED ON SURVEY OF EXACT WELL LOCATIONS AND LINER AS - BUILT RECORDS.



FINAL COVER SYSTEM 1/9/9
NTS


KEENE ROAD SOUTH
PROPERTY LINE
1-MILE BUFFER
0
2000
1" = 2000'
Legend
Zoning Overlay Districts
Streets
Y
Parcels
Existing Land Use (1997)
COMMERCIAL
CONSERVATION
INDUSTRIAL
INSTITUTIONAL
LOW DENSITY RESIDENTIAL
LOW-MEDIUM DENSITY RESIDENTIAL
MEDIUM DENSITY RESIDENTIAL
NO DESIGNATION
PARKS AND RECREATION
RURAL / AGRICULTURE
WATER BODY
Orange County Zoning
Residential Low-Density
Residential
Residential Cluster
University Residential
Residential District
Multiple Family Dwelling District
Mobile Home Residential
Professional Office
Commercial
Industrial
Planned Development
Agricultural Residential
Farmland Rural
Citrus Rural
Municipality
Neighborhood Activity Corridor
Named Lakes and Waterways
ZONING
A-1, A-2 AGRICULTURAL DISTRICT
A-R AGRICULTURAL-RESIDENTIAL DISTRICT
R-CE COUNTRY ESTATE DISTRICT
R-CE-C CLUSTER DISTRICT
R-CE-2 RURAL RESIDENTIAL DISTRICT
R-T MOBILE HOME PARK DISTRICT
R-1 SINGLE FAMILY DWELLING DISTRICT
R-2, R-3 MULTIPLE FAMILY DWELLING DISTRICT
P-O PLANNED DEVELOPMENT DISTRICT
IND-2 INDUSTRIAL DISTRICT
SOURCE OF MAP: ORANGE COUNTY FLORIDA INTERACTIVE MAP
http://www.orangecountyfl.net/cms/BUSINESS/gis/default.ht
LAKE WITHERINGTON
LAKE FULLER
LAKE SUMMIT
LAKE RUTHERFORD
LAKE MAYNARD
LAKE GENTILE
LAKE CARTER
LAKE MITCHELL
LAKE MARDEN
LAKE LENORE
LAKE CORA LEE
LAKE ALPHARETTA
LAKE BREAM
LAKE SIMS
LAKE ADDAH
LAKE MEADOW
LAKE RUDEN
BORDER LAKE
LAKE MCDADE
LAKE VIVIAN
LAKE CHARLOTTE
LAKE ROSE
LAKE LINDA
LAKE DAVIS
LONG LAKE
LAKE BESSYE
TROUT LAKE
CROOKED LAKE
PRAIRIE LAKE
WATER BODY
LAKE APOPKA
Apopka
Unincorporated
INSTITUTIONAL
LOW DENSITY RESIDENTIAL
CONSERVATION
COMMERCIAL
INDUSTRIAL
PARKS AND
RURAL / AGRICULTURE
NO DESIGNATION
MEDIUM DENSITY RESIDENTIAL
R-CE
R-CE-2
R-CE-C
R-T
A-1
A-2
IND-1
IND-2
P-O
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R-2
R-3
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APPENDIX C

POTABLE WELL INVENTORY

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # 16271 CUP/WUP # _____ DID # _____

If permit is for multiple wells indicate the number of wells drilled _____.

Indicate remaining wells to be cancelled _____.

WATER WELL CONTRACTOR'S (All wells drilled need an individual completion report)

SIGNATURE Lebellan L Gore Jr License # 7099

I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (Ft.)	To (Ft.)
Neat Cement			
Bentonite	1 1/2	0	73

WELL LOCATION: Site Address (Lot) 9945 White Rd (County) ORANGE

NW 1/4 of NW 1/4 of Section 21 Twp: 22 Rge: 28

Latitude _____ Longitude _____

DATE STAMP

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JAN 20 2000

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ORLANDO

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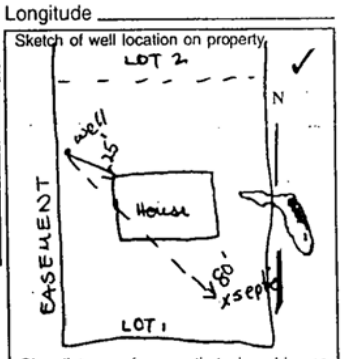
CHEMICAL ANALYSIS WHEN REQUIRED

Iron: _____ ppm Sulfate: _____ ppm

Chloride: _____ ppm

[ ] Lab Test [ ] Field Test Kit

Sketch of well location on property



Give distances from septic tank and house or other reference points

Pump Type

[ ] Centrifugal [ ] Jet [✓] Submersible [ ] Turbine

Horsepower 2 Capacity _____ G.P.M. 28

Pump Depth 63 Ft. Intake Depth 65 Ft.

OWNER'S NAME Darrell Munnelley

COMPLETION DATE 1-14-00 Florida Unique I.D. _____

WELL USE: DEP/Public ____ Irrigation ____ Domestic ✓ Monitor ____

HRS Limited ____ 62-524 ____ Other _____

DRILL METHOD [ ] Rotary [✓] Cable Tool [ ] Combination

[ ] Jet [ ] Auger Other _____

Measured Static Water Level 35 Measured Pumping Water Level 37

After 2 Hours at 28 G.P.M. Measuring Pt. (Describe): TOP OF WELL

Which is 2 Ft. [✓] Above [ ] Below Land Surface

Casing: [✓] Black Steel [ ] Galv. [ ] PVC Other _____

[ ] Open Hole
[ ] Screen

Casing Diameter & Depth (Ft.)

Depth (Ft.) 200'

DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones.

Casing Diameter & Depth (Ft.)	From	To	Color | Grain Size | Type of Material
Diameter 4" From 0 To 73	0	20	BROWN SAND
	20	23	WHITE SANDY CLAY
	23	68	BLUE CLAY
	68	70	GREEN CLAY
Diameter _____ From _____ To _____	70	73	GREY LIMESTONE W/ CLAY STRINGER'S
	73	160	GREY LIMESTONE
	160	200	WHITE LIMESTONE
Liner [ ] or Casing [ ] Diameter _____ From _____ To _____			

Driller's Name: *(print or type)* BRUCE CUMMINGS

ELLIS WELL DRILLING

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # 15939 CUP/WUP # _____ DID # _____

If permit is for multiple wells indicate the number of wells drilled _____

Indicate remaining wells to be cancelled _____

WATER WELL CONTRACTOR'S (All wells drilled need an individual completion report)

SIGNATURE William L Sima Jr License # 2099

I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (Ft.)	To (Ft.)
Neat Cement:			
Bentonite:	1½	0	68

WELL LOCATION: Site Address 9945 WHITE RD. Ocoee (County) ORANGE

NW ¼ of NW ¼ of Section 21 Twp: 22S Rge: 28E

Latitude _____ Longitude _____

DATE STAMP

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CHEMICAL ANALYSIS WHEN REQUIRED

Iron: _____ ppm Sulfate: _____ ppm

Chloride: _____ ppm

[ ] Lab Test [ ] Field Test Kit

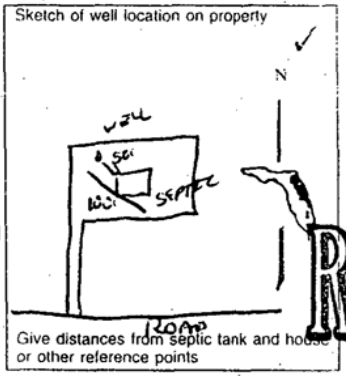
Pump Type

[ ] Centrifugal [ ] Jet [✓] Submersible [ ] Turbine

Horsepower 2 Capacity _____ G.P.M. 28

Pump Depth 63 Ft. Intake Depth 65 Ft.

Sketch of well location on property



Give distances from septic tank and house or other reference points

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JUN 22 1999

PDS ORLANDO S.J.R. WMD

OWNER'S NAME DARRELL NUNNELLY

COMPLETION DATE 6-17-99 Florida Unique I.D. _____

WELL USE: DEP/Public ___ Irrigation ___ Domestic ✓ Monitor ___

HRS Limited ___ 62-524 ___ Other _____

DRILL METHOD [ ] Rotary [ ] Cable Tool [✓] Combination

[ ] Jet [ ] Auger Other _____

Measured Static Water Level 42 Measured Pumping Water Level 44

After 2 Hours at 28 G.P.M. Measuring Pt. (Describe): TOP OF WELL

Which is 2 Ft. [X] Above [ ] Below Land Surface

Casing: [X] Black Steel [ ] Galv. [ ] PVC Other _____

[ ] Open Hole
[ ] Screen

Depth (Ft.) 153

Casing Diameter & Depth (Ft.)

Diameter 4" From 0 To 68

Diameter _____ From _____ To _____

Diameter _____ From _____ To _____

Diameter _____ From _____ To _____

DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones.

From	To	Color / Grain Size / Type of Material
0	20	LIGHT TAN SAND
20	45	BROWN SAND
45	60	BROWN SAND + CLAY MIXED
60	65	GRAY CLAY
65	85	BLACK + GRAY ROCK HARD
85	95	GRAY CLAY SOFT
95	115	GRAY CLAY SOFT
115	125	BLACK + GRAY ROCK HARD
125	138	GRAY CLAY
138	150	GRAY + BLACK ROCK-BIG CAVERN
150	153	WATER CAVITY

Driller's Name (Printed or Typed) WILLIAM L. SIMA JR.

FILLS WELL DRILLING

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # 15795 CUP/WUP # _____ DID # _____

If permit is for multiple wells indicate the number of wells drilled _____.

Indicate remaining wells to be cancelled _____.

WATER WELL CONTRACTOR'S (All wells drilled need an individual completion report)

SIGNATURE _____ License # _____

I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (Ft.)	To (Ft.)
Neat Cement:			
Bentonite:			

WELL LOCATION: Site Address 8601 HAL COURT ORLANDO (County) ORANGE

____ 1/4 of ____ 1/4 of Section 22 Twp: 22S Rge: 28E

Latitude _____ Longitude _____

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APR 05 1999
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ORLANDO
SJR WMD
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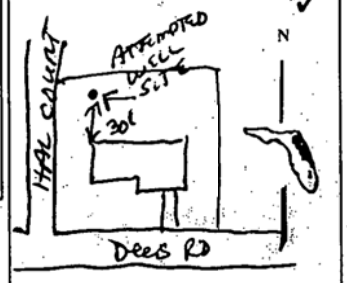
Sketch of well location on property



Give distances from septic tank and house or other reference points

CHEMICAL ANALYSIS WHEN REQUIRED

Iron: _____ ppm Sulfate: _____ ppm

Chloride: _____ ppm

[ ] Lab Test [ ] Field Test Kit

Pump Type

[ ] Centrifugal [ ] Jet [X] Submersible [ ] Turbine

Horsepower _____ Capacity _____ G.P.M. _____

Pump Depth _____ Ft. Intake Depth _____ Ft.

OWNER'S NAME ASHLEY BILLINGS

COMPLETION DATE 4/2/99 Florida Unique I.D. _____

WELL USE: DEP/Public ____ Irrigation ✓ Domestic ____ Monitor ____

HRS Limited ____ 62-524 ____ Other _____

DRILL METHOD [ ] Rotary [ ] Cable Tool [✓] Combination

[ ] Jet [ ] Auger Other _____

Measured Static Water Level _____ Measured Pumping Water Level _____

After [redacted] Hours at ____ G.P.M. Measuring Pt. (Describe) [redacted]

Which is ____ Ft. [redacted] Above [ ] Below Land Surface

Casing: [X] Black Steel [ ] Galv. [ ] PVC Other _____

[ ] Open Hole [ ] Screen / Casing Diameter & Depth (Ft.)	Depth (Ft.) From	To	DRILL CUTTINGS LOG — Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color | Grain Size | Type of Material
Diameter 4" From 0 To 115			ATTEMPT AT DRILLING WELL FAILED DUE TO FORMATION - SINKHOLE
Diameter ____ From ____ To ____			CASING CUT BELOW GRADE AND ABANDONED, FILLED WITH HOLE PLUG
Liner [ ] or Casing [ ] Diameter ____ From ____ To ____			

Driller's Name: (print or type) WILLIAM L. SIMA JR.

ELLIS WELL DRILLING

CENTRAL FLORIDA WELL DRILLERS, INC.

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # OC 14866 CUP # _____ DID # _____
Number of wells drilled 1 /WUP # _____
Indicate remaining wells to be cancelled _____
(All wells drilled need an individual completion report)
WATER WELL CONTRACTOR'S
SIGNATURE _____ License # 1971
I certify that the information provided in this report is accurate and true)

OWNER'S NAME Carol Rashford
COMPLETION DATE 7/18/97 Florida Unique I.D. _____
WELL USE: DEP/Public _____ Irrigation X Domestic _____ Monitor _____
HRS Limited _____ 62-524 _____ Other _____
DRILL METHOD ☐ Rotary ☒ Cable Tool ☐ Combination
☐ Jet ☐ Auger Other _____

Grout	No. of Bags	From (ft.)	To (ft.)
Neat Cement:			
Bentonite:	2	0	82

Measured Static Water Level 47 Measured Pumping Water Level _____
After _____ Hours at _____ G.P.M. Measuring Pt. (Describe): _____
Which is ____ Ft. ☐ Above ☐ Below Land Surface
Casing: ☒ Black Steel ☐ Galv. ☐ PVC Other _____

WELL LOCATION: Site Address 1512 Heirloom County Orange
Qtr: Qtr: Sec: 22 Twp: 22S Rge: 28E
Latitude _____ Longitude _____

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Sketch of well location on property N

Give distances from septic tank and house or other reference points

CHEMICAL ANALYSIS

Iron: ____ ppm Sulfate: _____ ppm
Chlorides: _____ppm
[ ] Lab Test [ ] Field Test Kit
Pump Type
[ ] Centrifugal [ ] Jet [X] Submersible
[ ] Turbine
Horsepower 1 Capacity 20 G.P.M. _____
Pump Depth 85 Ft. Intake Depth 84 Ft.

☒ Open Hole ☐ Screen	82 Depth (Ft.)	188	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Give color, grain size, and type of material. Note cavities, depth to producing zones.
Casing Diameter & Depth (Ft.) 4"	0 From	82 To	
Diameter _____	0	40	SAND
From _____	40	50	CLAY, orange, sand
To _____	50	82	CLAY, white, gravel
	82	85	ROCK, white, hard
Diameter _____	85	100	CLAY,stiff,white,grave
From _____	100	120	CLAY, YELLOW, gravel
To _____	120	145	CLAY, gray, gravel
	145	188	LIMESTONE, white, soft
Liner ☐ or Casing ☐			
Diameter ___ ___			
From _____			
To _____			

Driller's Name:
(print or type) David A. Stewart, Jr. 30265

WELL COMPLETION REPORT (Please complete in black ink or type.)
PERMIT # _____ CUP/WUP # _____ DID # 1857

If permit is for multiple wells indicate the number of wells drilled _____.
Indicate remaining wells to be cancelled _____.
WATER WELL CONTRACTOR'S (All wells drilled need an individual completion report)
SIGNATURE D.W. Mapp III License # 1857
I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (Ft.)	To (Ft.)
Neat Cement:			
Bentonite:			

WELL LOCATION: County Orange
____ 1/4 of ____ 1/4 of Section 2 Twp: 22S Rge: 28E
Latitude _____ Longitude _____

DATE STAMP
Official Use Only

Sketch of well location on property

Give distances from septic tank and house or other reference points

CHEMICAL ANALYSIS WHEN REQUIRED
Iron: _____ ppm Sulfate: _____ ppm
Chloride: _____ ppm
[ ] Lab Test [ ] Field Test Kit

Pump Type
[ ] Centrifugal [ ] Jet [X] Submersible [ ] Turbine
Horsepower 7.5 Capacity 70 G.P.M. 70
Pump Depth 135 Ft. Intake Depth 135 Ft.

OWNER'S NAME PINE HILLS ELEMENTARY
COMPLETION DATE 8/1/98 Florida Unique I.D. 1857
WELL USE: DEP/Public ____ Irrigation X Domestic ____ Monitor ____
HRS Limited ____ 62-524 ____ Other _____
DRILL METHOD [ ] Rotary [ ] Cable Tool [X] Combination
[ ] Jet [ ] Auger Other _____

Measured Static Water Level 82' Measured Pumping Water Level _____
After ____ Hours at ____ G.P.M. Measuring Pt. (Describe): _____
Which is ____ Ft. [ ] Above [ ] Below Land Surface
Casing: [X] Black Steel [ ] Galv. [ ] PVC Other _____

[X] Open Hole [ ] Screen

Casing Diameter & Depth (Ft.)	Depth (Ft.) From	To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color | Grain Size | Type of Material
Diameter 5" From 0 To 76'	0	15	YELLOW TOPSOIL SAND
	15	25	WHITE SAND
	25	35	SAND-CLAY MIX
	35	50	ORANGE SAND
Diameter ____ From ____ To ____	50	60	WHITE CLAY
	60	65	SAND-SHELL MIX
	65	76	LIGHT CLAY
	76	95	HARD GRAY ROCK
Liner [ ] or Casing [ ] Diameter ____ From ____ To ____	95	120	MEDIUM TAN ROCK
	120	130	GRAY HAWTHORN'S
	130	150	WHITE LIMEROCK
	150	165	YELLOW LIME
	165	200	WHITE LIME
	200	207	VOID
	207	228	LIMESTONE-WHITE

Driller's Name: *(print or type)* GRIMMER MAPP III

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # 14630 CUP # _____ DID # _____
Number of wells drilled 1 /WUP # _____
Indicate remaining wells to be cancelled _____
(All wells drilled need an individual completion report)
WATER WELL CONTRACTORS
SIGNATURE Charlie Smith License # 2379
I certify that the information provided in this report is accurate and true)

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OWNER'S NAME Ron Usmler
COMPLETION DATE Jan 14-97 Florida Unique I.D. _____
WELL USE: DEP/Public _____ Irrigation _____ Domestic ✓ Monitor _____
HRS Limited _____ 62-524 _____ Other _____
DRILL METHOD ☐ Rotary ☑ Cable Tool ☐ Combination
☐ Jet ☐ Auger Other _____

Grout	No. of Bags	From (ft.)	To (ft.)
Neat Cement:			
Bentonite:			

Measured Static Water Level 80 Measured Pumping Water Level 105
After 1 Hours at 30 G.P.M. Measuring Pt. (Describe): _____
Which is ✓ Ft. ☐ Above ☐ Below Land Surface
Casing: ☑ Black Steel ☐ Galv. ☐ PVC Other _____

WELL LOCATION: Site Address 8521 Hocking Park Rd County Orange
Qtr: _____ Qtr: _____ Sec: 3 Twp: 22S Rge: 28E
Latitude _____ Longitude _____

DATE STAMP
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Sketch of well location on property N
well
30'
House
Give distances from septic tank and house or other reference points

CHEMICAL ANALYSIS
Iron: ___ ppm Sulfate: ___ ppm
Chlorides: ___ ppm
[ ] Lab Test [ ] Field Test Kit
Pump Type
[ ] Centrifugal [ ] Jet [✓] Submersible
[ ] Turbine
Horsepower 1 Capacity 30 G.P.M. 30
Pump Depth 105 Ft. Intake Depth 20 Ft.

☐ Open Hole ☐ Screen	Depth (Ft.) From	To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Give color, grain size, and type of material. Note cavities, depth to producing zones.
Casing Diameter & Depth (Ft.)			
Diameter 4"	0	20	SAND
From 0	20	40	SAND
To 70	40	60	Clay
	60	80	Clay/Rock
Diameter ___	80	100	Clay
From ___	100	120	Clay
To ___	120	140	Clay/Rock
	140	160	Rock/Lime
Liner ☐ or Casing ☐	160	180	Lime/water
Diameter ___			
From ___			
To ___			

Driller's Name: (print or type) Larry Pugh

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # 15355 CUP # _____ DID # _____
Number of wells drilled 1 /WUP # _____
Indicate remaining wells to be cancelled 0
(All wells drilled need an individual completion report)
WATER WELL CONTRACTOR'S SIGNATURE Michael Joyce License # 13624
I certify that the information provided in this report is accurate and true)

OWNER'S NAME Darrell & Roxanne Hughes
COMPLETION DATE 8.4.98 Florida Unique I.D. _____
WELL USE: DEP/Public _____ Irrigation _____ Domestic ✓ Monitor _____
HRS Limited _____ 62-524 _____ Other _____
DRILL METHOD ☐ Rotary ☐ Cable Tool ☑ Combination
☐ Jet ☐ Auger Other _____

Grout	No. of Bags	From (ft.)	To (ft.)
Neat Cement:			
Bentonite:	1	0	70'

Measured Static Water Level 68' Measured Pumping Water Level _____
After _____ Hours at _____ G.P.M. Measuring Pt. (Describe): _____
Which is _____ Ft. ☐ Above ☐ Below Land Surface
Casing: ☑ Black Steel ☐ Galv. ☐ PVC Other _____

WELL LOCATION: Site Address 8561 Hackney Prairie Rd Orange
Qtr: _____ Qtr: _____ Sec: 3 Twp: 22S Rge: 28E
Latitude _____ Longitude _____

DATE STAMP

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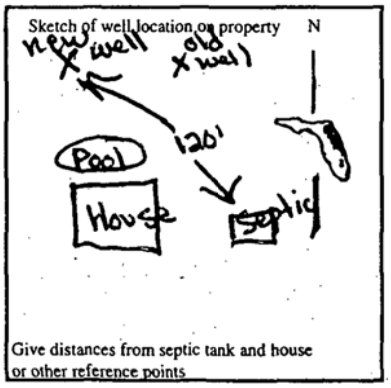
CHEMICAL ANALYSIS

Iron: ___ ppm Sulfate: ___ ppm
Chlorides: ___ ppm
[ ] Lab Test [ ] Field Test Kit
Pump Type
[ ] Centrifugal [ ] Jet [✓] Submersible
[ ] Turbine
Horsepower 1 Capacity 25 G.P.M. 25
Pump Depth 84 Ft. Intake Depth 87 Ft.

Sketch of well location on property



Give distances from septic tank and house or other reference points

☑ Open Hole / ☐ Screen	Depth (Ft.) From	To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Give color, grain size, and type of material. Note cavities, depth to producing zones.
Casing Diameter & Depth (Ft.)			
Diameter 4"	0	20	Sand grey/clay rock
From 0	20	40	" "
To 70	40	60	" "
	60	70	
Diameter ___	70	80	Hardrock, greenish
From ___	80	100	" "
To ___	100	120	" "
	120	140	" "
Liner ☐ or Casing ☐	140	160	
Diameter ___	160	175	Rock limerock & phos
From ___			
To ___			

Driller's Name: Timothy Myers
(print or type)

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # ORANGE 15988 WMD # _____ DID # _____

If permit is for multiple wells indicate the number of wells drilled _____.

Indicate remaining wells to be cancelled _____.

WATER WELL CONTRACTOR'S (All wells drilled need an individual completion report)

SIGNATURE [signature] License # 1971

I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (Ft.)	To (Ft.)
Neat Cement:			
Bentonite:	1	0	147

WELL LOCATION: Site Address 15650 SR 50 (County) Orange

_____ 1/4 of _____ 1/4 of Section 27 Twp: 22S Rge: 28E

Latitude _____ Longitude _____

DATE STAMP

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CHEMICAL ANALYSIS WHEN REQUIRED

Iron: _____ ppm Sulfate: _____ ppm

Chloride: _____ ppm

[ ] Lab Test [ ] Field Test Kit

Sketch of well location on property

Give distances from septic tank and house or other reference points

Pump Type

[ ] Centrifugal [ ] Jet [X] Submersible [ ] Turbine

Horsepower 1 Capacity _____ G.P.M. 20

Pump Depth _____ Ft. Intake Depth 63 Ft.

OWNER'S NAME Jefferson Voss

COMPLETION DATE 7/22/99 Florida Unique I.D. _____

WELL USE: DEP/Public ____ Irrigation ____ Domestic X Monitor ____

HRS Limited ____ 62-524 ____ Other _____

DRILL METHOD [ ] Rotary [X] Cable Tool [ ] Combination

[ ] Jet [ ] Auger Other _____

Measured Static Water Level 28' Measured Pumping Water Level _____

After ___ Hours at ___ G.P.M. Measuring Pt. (Describe): _____

Which is 1 Ft. [X] Above [ ] Below Land Surface

Casing: [X] Black Steel [ ] Galv. [ ] PVC Other _____

[ ] Open Hole
[ ] Screen

Casing Diameter & Depth (Ft.)

Diameter 4" From 0 To 147

Diameter _____ From _____ To _____

Liner [ ] or Casing [ ] Diameter _____ From _____ To _____

Depth (Ft.) From	To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color | Grain Size | Type of Material
0	15	SAND
15	40	CLAY, white, stiff
40	60	CLAY, white, soft
60	120	CLAY, green, sand
120	145	LIMESTONE, white, soft
145	148	LIMESTONE, white, med. h
148	[illegible]	[illegible] soft

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Driller's Name: (print or type) David A. Stewart, Jr. # 30265

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # 15047 CUP # _____ DID # _____
Number of wells drilled 1 /WUP # _____
Indicate remaining wells to be cancelled _____
(All wells drilled need an individual completion report)
WATER WELL CONTRACTOR'S SIGNATURE Charlie Smithwick # _____
I certify that the information provided in this report is accurate and true)

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BY _____

OWNER'S NAME William Pagan
COMPLETION DATE NOV 19-97 Florida Unique I.D. _____
WELL USE: DEP/Public _____ Irrigation _____ Domestic ✓ Monitor _____
HRS Limited _____ 62-524 _____ Other _____
DRILL METHOD ☐ Rotary ☑ Cable Tool ☐ Combination
☐ Jet ☐ Auger Other _____

Grout	No. of Bags	From (ft.)	To (ft.)
Neat Cement:			
Bentonite:			

Measured Static Water Level 60 Measured Pumping Water Level 80
After 1 Hours at 35 G.P.M. Measuring Pt. (Describe): _____
Which is _____ Ft. ☐ Above ☐ Below Land Surface
Casing: ☑ Black Steel ☐ Galv. ☐ PVC Other _____

WELL LOCATION: Site Address 445 Forsyth Rd County Orange
Qtr: _____ Qtr: _____ Sec: 26 Twp: 22 Rge: 28
Latitude _____ Longitude _____

DATE STAMP
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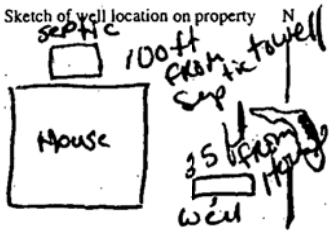
CHEMICAL ANALYSIS
Iron: ___ ppm Sulfate: ___ ppm
Chlorides: ___ ppm
[ ] Lab Test [ ] Field Test Kit
Pump Type
[ ] Centrifugal [ ] Jet [M] Submersible
[ ] Turbine
Horsepower 2 Capacity 35 G.P.M. 35
Pump Depth 84 Ft. Intake Depth 60 Ft.

Sketch of well location on property N


Give distances from septic tank and house or other reference points

☐ Open Hole ☐ Screen	Depth (Ft.) From	To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Give color, grain size, and type of material. Note cavities, depth to producing zones.
Casing Diameter & Depth (Ft.)			
Diameter 4"	0	60	SAND
From 0	60	80	CLAY
To 84	80	84	CLAY / ROCK
	84	100	" "
Diameter ___	100	120	" "
From ___	120	140	" "
To ___	140	160	" "
	160	180	" "
Liner ☐ or Casing ☐	180	200	"Limestone"
Diameter ___	200	225	LIMESTONE
From ___			
To ___			

Driller's Name: *(print or type)* LARRY Pugh

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # 15797 CUP/WUP # _____ DID # _____

If permit is for multiple wells indicate the number of wells drilled _____.

Indicate remaining wells to be cancelled _____.

WATER WELL CONTRACTOR'S (All wells drilled need an individual completion report)

SIGNATURE Charlie Smithwd License # 2379

I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (Ft.)	To (Ft.)
Neat Cement:			
Bentonite:			

WELL LOCATION: Site Address _____ (County) Orange

____ 1/4 of ____ 1/4 of Section 33 Twp: 22S Rge: 28E

Latitude _____ Longitude _____

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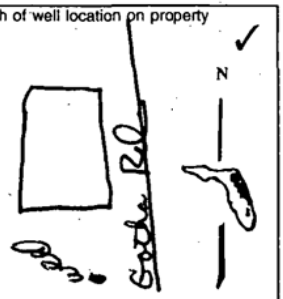
CHEMICAL ANALYSIS WHEN REQUIRED

Iron: _____ ppm Sulfate: _____ ppm

Chloride: _____ ppm

[ ] Lab Test [ ] Field Test Kit

Sketch of well location on property



Give distances from septic tank and house or other reference points

Pump Type

[ ] Centrifugal [ ] Jet [ ] Submersible [ ] Turbine

Horsepower 1 Capacity 25 G.P.M. 25

Pump Depth 63 Ft. Intake Depth 40 Ft.

OWNER'S NAME Bill Blackburn

COMPLETION DATE 3/29/99 Florida Unique I.D. _____

WELL USE: DEP/Public ___ Irrigation ___ Domestic ✓ Monitor ___

HRS Limited ___ 62-524 ___ Other _____

DRILL METHOD [ ] Rotary [✓] Cable Tool [ ] Combination

[ ] Jet [ ] Auger Other _____

Measured Static Water Level 40 Measured Pumping Water Level 40

After 1 Hours at 20 G.P.M. Measuring Pt. (Describe): _____

Which is 40 Ft. [ ] Above [✓] Below Land Surface

Casing: [✓] Black Steel [ ] Galv. [ ] PVC Other _____

[ ] Open Hole [ ] Screen / Casing Diameter & Depth (Ft.)	Depth (Ft.) From	To	DRILL CUTTINGS LOG — Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color | Grain Size | Type of Material
Diameter 4"	0	40	SAND
From 0	40	60	SAND / Clay
To 84	60	80	Clay Rock
	80	84	Clay Rock
Diameter ___	84	120	" "
From ___	120	160	" "
To ___	160	180	Clay water
	180	195	Clay / water
Liner [ ] or Casing [ ] Diameter ___ From ___ To ___			

Driller's Name: (print or type) L Hall Pugh

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # 15527 CUP/WUP # _____ DID # _____

If permit is for multiple wells indicate the number of wells drilled _____.

Indicate remaining wells to be cancelled 0.

WATER WELL CONTRACTOR'S (All wells drilled need an individual completion report)

SIGNATURE Jerry E Thompson License # 7157

I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (Ft.)	To (Ft.)
Neat Cement:			
Bentonite:	3	0	223

WELL LOCATION: Site Address 9361 Cobb Rd (County) ORANGE

____ 1/4 of ____ 1/4 of Section 33 Twp: 22S Rge: 28E

Latitude _____ Longitude _____

DATE STAMP

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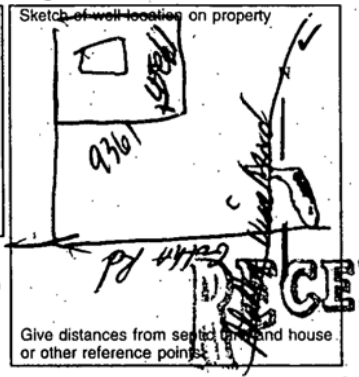
Sketch of well location on property



Give distances from septic or well to house or other reference points

CHEMICAL ANALYSIS WHEN REQUIRED

Iron: _____ ppm Sulfate: _____ ppm

Chloride: _____ ppm

[ ] Lab Test [ ] Field Test Kit

Pump Type

[ ] Centrifugal [ ] Jet [X] Submersible [ ] Turbine

Horsepower 2 Capacity 10 G.P.M. _____

Pump Depth 84 Ft. Intake Depth _____ Ft.

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OWNER'S NAME Victor VAZTOAL

COMPLETION DATE 12/3/98 Florida Unique I.D. _____

WELL USE: DEP/Public ____ Irrigation ____ Domestic X Monitor ____

HRS Limited ____ 62-524 ____ Other _____

DRILL METHOD [ ] Rotary [ ] Cable Tool [X] Combination

[ ] Jet [ ] Auger Other _____

Measured Static Water Level 50 Measured Pumping Water Level _____

After ____ Hours at ____ G.P.M. Measuring Pt. (Describe): _____

Which is 1 Ft. [X] Above [ ] Below Land Surface

Casing: [X] Black Steel [ ] Galv. [ ] PVC Other _____

[X] Open Hole
[ ] Screen

Casing Diameter & Depth (Ft.)

Diameter 4" From 0 To 223

Diameter _____ From _____ To _____

Liner [ ] or [ ]

Diameter _____ From _____ To _____

Depth (Ft.) From	To	DRILL CUTTINGS LOG (Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones.) Color / Grain Size / Type of Material
0	20	brown SAND
20	40	brown SAND
40	60	brown SAND
60	80	brown, white clay
80	100	green sandy clay
100	120	green sandy clay
120	140	green, sandy clay
140	160	olive sandy clay
160	180	sand, grey
180	200	TAN, rock
200	220	sandy green clay
220	240	white limestone
240	260	white limestone
260	280	white limestone
280	290	white limestone

Driller's Name: (print or type) Jerry E Thompson JR.

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # 16791 CUP/WUP # _____ DID # _____

If permit is for multiple wells indicate the number of wells drilled _____.

Indicate remaining wells to be cancelled _____.

WATER WELL CONTRACTOR'S (All wells drilled need an individual completion report)

SIGNATURE Keith Rachford License # _____

I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (Ft.)	To (Ft.)
Neat Cement:			
Bentonite:	1	T	B

WELL LOCATION: Site Address 1543 DINGENS (County) Orange

_____ 1/4 of _____ 1/4 of Section 33 Twp: 22S Rge: 28E

Latitude _____ Longitude _____

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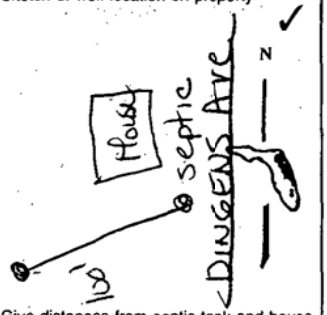
Sketch of well location on property



Give distances from septic tank and house or other reference points

CHEMICAL ANALYSIS WHEN REQUIRED

Iron: _____ ppm Sulfate: _____ ppm

Chloride: _____ ppm

[ ] Lab Test [ ] Field Test Kit

Pump Type

[ ] Centrifugal [ ] Jet [X] Submersible [ ] Turbine

Horsepower 1hp Capacity 27 G.P.M. _____

Pump Depth 63 Ft. Intake Depth _____ Ft.

OWNER'S NAME _____

COMPLETION DATE 12-1-99 Florida Unique I.D. _____

WELL USE: DEP/Public ___ Irrigation ___ Domestic X Monitor ___

HRS Limited ___ 62-524 ___ Other _____

DRILL METHOD [ ] Rotary [X] Cable Tool [ ] Combination

[ ] Jet [ ] Auger Other _____

Measured Static Water Level 52 Measured Pumping Water Level 52

After 2 Hours at 27 G.P.M. Measuring Pt. (Describe): _____

Which is 63 Ft. [ ] Above [X] Below Land Surface

Casing: [X] Black Steel [ ] Galv. [ ] PVC Other _____

[X] Open Hole [ ] Screen	Depth (Ft.) From	To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. *Color | Grain Size | Type of Material*
Casing Diameter & Depth (Ft.)			
Diameter 8" From _____ To 841	0	20	OVERBURDEN
	20	40	SAND
Diameter _____ From _____ To _____	40	120	White Clay + Rock
	120	175	lime Rock
Liner [ ] or Casing [ ] Diameter _____ From _____ To _____			

Driller's Name: (print or type) Keith Rachford

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # 5828 CUP # _____ DID # _____
Number of wells drilled 1 /WUP # _____
Indicate remaining wells to be cancelled 0
(All wells drilled need an individual completion report)
WATER WELL CONTRACTOR'S
SIGNATURE Keith Rachford License # 2309
I certify that the information provided in this report is accurate and true)

OWNER'S NAME Van Home Builders
COMPLETION DATE 7-28-98 Florida Unique I.D. _____
WELL USE: DEP/Public _____ Irrigation _____ Domestic _____ Monitor _____
HRS Limited _____ 62-524 _____ Other _____
DRILL METHOD ☐ Rotary ☐ Cable Tool ☒ Combination
☐ Jet ☐ Auger Other _____

Grout	No. of Bags	From (ft.)	To (ft.)
Neat Cement:			
Bentonite:	1	0	115

Measured Static Water Level _____ Measured Pumping Water Level _____
After _____ Hours at _____ G.P.M. Measuring Pt. (Describe): _____
Which is ___ Ft. ☐ Above ☐ Below Land Surface
Casing: ☒ Black Steel ☐ Galv. ☐ PVC Other _____

WELL LOCATION: Site Address Hempel Ave County Orange
Qtr: _____ Qtr: _____ Sec: 33 Twp: 22S Rge: 28E
Latitude _____ Longitude _____

DATE STAMP
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SEP 08 1999
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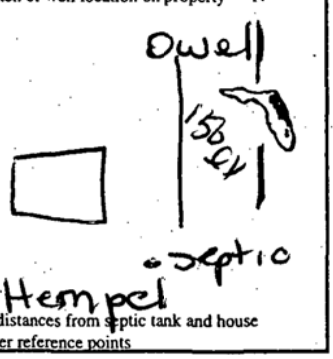
Sketch of well location on property N


Give distances from septic tank and house or other reference points

CHEMICAL ANALYSIS
Iron: ___ ppm Sulfate: ___ ppm
Chlorides: ___ ppm
[ ] Lab Test [ ] Field Test Kit
Pump Type
[ ] Centrifugal [ ] Jet [X] Submersible
[ ] Turbine
Horsepower 1hp Capacity ___ G.P.M. 20
Pump Depth 63 Ft. Intake Depth 63 Ft.

☒ Open Hole ☐ Screen	Depth (Ft.) From	To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Give color, grain size, and type of material. Note cavities, depth to producing zones.
Casing Diameter & Depth (Ft.)			
Diameter 4"	0	28	SAND
From 0		68	
To 115		88	CLAY + Shell
		160	CLAY
Diameter ___		115	ROCK
From ___		120	
To ___		150	ROCK
Liner ☐ or Casing ☐			
Diameter ___ ___			
From ___			
To ___			

Driller's Name: *(print or type)* Keith Rachford

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # 125616 CUP/WUP # _____ DID # _____

If permit is for multiple wells indicate the number of wells drilled _____.

Indicate remaining wells to be cancelled _____.

WATER WELL CONTRACTOR'S (All wells drilled need an individual completion report)

SIGNATURE Jerry E Thompson Jr License # 7157

I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (Ft.)	To (Ft.)
Neat Cement:			
Bentonite:	2	0	125

WELL LOCATION: Site Address _____ (County) Orange

____ 1/4 of ____ 1/4 of Section 32 Twp: 22 Rge: 28

Latitude _____ Longitude _____

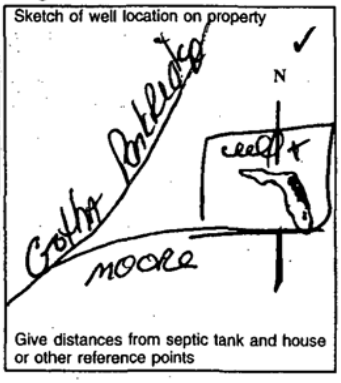
DATE STAMP

RECEIVED

OCT 25 1999

By _____ Official Use Only

Sketch of well location on property



Give distances from septic tank and house or other reference points

CHEMICAL ANALYSIS WHEN REQUIRED

Iron: _____ ppm Sulfate: _____ ppm

Chloride: _____ ppm

[ ] Lab Test [ ] Field Test Kit

Pump Type

[ ] Centrifugal [ ] Jet [X] Submersible [ ] Turbine

Horsepower 1.5 Capacity 20 G.P.M. _____

Pump Depth 84 Ft. Intake Depth _____ Ft.

OWNER'S NAME Martin Gross

COMPLETION DATE 10-26-99 Florida Unique I.D. _____

WELL USE: DEP/Public ____ Irrigation ____ Domestic ____ Monitor ____

HRS Limited ____ 62-524 ____ Other _____

DRILL METHOD [ ] Rotary [ ] Cable Tool [X] Combination

[ ] Jet [ ] Auger Other _____

Measured Static Water Level 30 Measured Pumping Water Level _____

After ____ Hours at ____ G.P.M. Measuring Pt. (Describe): _____

Which is 1 Ft. [X] Above [ ] Below Land Surface

Casing: [X] Black Steel [ ] Galv. [ ] PVC Other _____

[X] Open Hole [ ] Screen	Depth (Ft.) From	To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color | Grain Size | Type of Material
Casing Diameter & Depth (Ft.)			
Diameter 4" From 0 To 125	0	38	white SAND
	38	116	SANDY blue CLAY
	116	130	grey ROCK
	130	150	grey ROCK
Diameter ____ From ____ To ____	150	220	white CAVERNOUS LIME
Liner [ ] or Casing [ ] Diameter ____ From ____ To ____			

Driller's Name: (print or type) Jerry E Thompson JR

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 10051

Gutter King — Owner
4530 Pagnat Way — Address
Orlando — City
Fla — State
32808 — Zip

Robert Hunt — Contractors Signature
2102 — License No.
1-18-88 — Completion Date
72' — CASING DEPTH
170' — Total Depth

Jay Herrington — Driller's Signature
1970 — Registration No.
095880009

Type of work: Construct ✓ Repair ____ Abandon ____
Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____
Industrial ____ Recharge ____ Other ____
Method: Rotary ____ Cable Tool ✓ Jet ____ Combination ____
Other ____
Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____
Screened From ____ Ft. to ____ Ft.
Bags of Grout 1 Interval Grouted 0 Ft. to 3 Ft.
Static Water Level 65 Ft. below Top of Casing
Pumping Water Level ____ Ft. after ____ Hrs. at ____ GPM
Pump Size 1 H.P. Capacity 20 GPM

WELL LOCATION

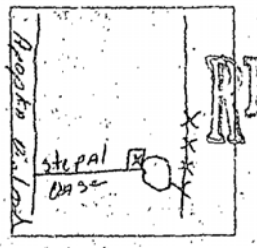
Address ____

Stepal Chase — Subdivision
14 — Lot #

Latitude - Longitude

County Orange

2 — Section
22 — Township
28 — Range



Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
0-3'		4"	0	20	Sand & Hard Pan
		"	20	40	Sand
		"	40	60	Sand & Green Clay
		"	60	70	Clay & Gravel
		"	70	72	Soft Pepper
		4"	72	100	Lime Rock
		"	100	120	" "
		"	120	150	" "
		"	150	170	Water bearing Lime
AUG 12 1988					COMPLETED
RECORDED					

PALATKA

Cuttings sent to District? ( ) Yes (✓) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11132

Charles Shattuck 4777 Roling Oaks Dr. Orlando, FL. 3

Owner — Address — City — State — Zip

[signature] 1022 7-21-89 61' 68'

Contractor's Signature — License No. — Completion Date — CASING DEPTH — Total Depth

[signature] 30866 09S890426

Driller's Signature — Registration No.

Type of work: Construct X Repair ___ Abandon ___

Well Use: Private X Public ___ Monitor ___ Irrigation ___

Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool X Jet ___ Combination ___

Other ___

Casing: Black Steel X Galvanized ___ PVC ___ Other ___

Screened From NA Ft. to ___ Ft.

Bags of Grout 1 Interval Grouted 2" Ft. to 3' Ft.

Static Water Level 25 Ft. below Top of Casing

Pumping Water Level 25 Ft. after 1 Hrs. at 25 GPM

Pump Size 1 H.P. Capacity 25 GPM

N

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
2"	4"	0	0	25	SAND
3'			25	60	CLAY
			61	63	VERY HARD GRAY ROCK
			63	68	CAVITY, WATER

RECEIVED
OCT 13 1989
RECORDS
ORLANDO

ELLIS WELL DRILLING, INC.
P. O. BOX 3008, FOREST CITY, FLA.
PHONE 293-1831

ENTERED FAA

WELL LOCATION

Address SAME AS ABOVE

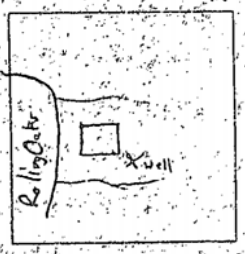
Subdivision ___ Lot # ___

Latitude - Longitude ___

County ORANGE

2 22S 28E

Section Township Range



Located Near

Cuttings sent to District? ( ) Yes (X) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY) PERMIT NO. 11407

Henry Brower (Owner) 8220 Steeple Chase Blvd. (Address) Orlando (City) Fl. (State) 91' (Zip)

Willard Ames (Contractor Signature) 2106 (License No.) 1-12-90 (Completion Date) CASING DEPTH 178' Total Depth 095-90-0177

Willard Ames (Driller Signature) D753 (Registration No.)

Type of work: Construct ✓ Repair ____ Abandon ____

Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____
Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ✓ Jet ____ Combination ____
Other ____

Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout 3/3 Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 80 Ft. below Top of Casing

Pumping Water Level 80 Ft. after 1 Hrs. at 50 GPM

Pump Size 2 H.P. Capacity 45 GPM

RECEIVED FEB 12 1990 RECORDS CALASIA

WELL LOCATION

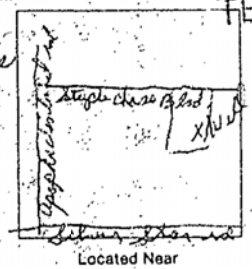
Address 8220 Steeple Chase Blvd., Orl. Fl.

Subdivision ____ Lot # 30

Latitude - Longitude ____

County Orange

Section 2 Township 22S Range 28E



Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
2'bg3'	4"	91	0	15	Light gray sand
			15	41	Dark brown sand
			41	57	Green clay shell
			57	74	Light gray sandy clay
			74	78	Hard dark gray clay
			78	83	Hard gray rock
			83	85	Cavity (dry)
			85	92	Light tan soft lime
			92	98	Hard tan lime
			98	106	Soft white lime
			106	120	Dark brown soft clay sandy
			120	130	Soft brown sandy clay
			130	135	Soft light brown clay
			135	178	Tan lime

Cuttings sent to District? ( ) Yes (✓) ~~No~~

CENTRAL FLORIDA WELL DRILLERS, INC. 3720 N. ORANGE BLOSSOM TRIAL, ORLANDO, FL 3280

PERMIT NO.

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

Page 2

Keith McKeen	4500 N. Hiawassee Road	Orlando	Florida	32818
Owner	Address	City	State	Zip
[signature]	1971	March 1, 1988	282'	343'
Driller's Signature	License No.	Completion Date	4" CASING DEPTH	Total Depth
Robert C. Stewart	30262			
	Registration No.			

0958 80135

Type of work: Construct X Repair ___ Abandon ___

Well Use: Private ___ Public ___ Monitor ___ Irrigation X

Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool X Jet ___ Combination ___

Other ___

Casing: Black Steel 4" Galvanized ___ PVC ___ Other ___

Screened From ___ Ft. to ___ Ft.

Bags of Grout 1 Interval Grouted 0 Ft. to 3 Ft.

Static Water Level 23 Ft. below Top of Casing

Pumping Water Level ___ Ft. after ___ Hrs. at ___ GPM

Pump Size 3 H.P. Capacity 50 GPM

WELL LOCATION

Address 4500 N. Hiawassee Road

Subdivision ___ Lot # ___

Latitude - Longitude ___

County Orange

Section 2 Township 22S Range 28E

N

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities indicate producing zones. Attach additional sheets if necessary.
2" 0-3'	4"	282			
			152	184	Soft White Limerock
			184	185	Med. Hd. White Limerock
			185	186	Cavity (Dark Water)
			186	205	Soft White Limerock
			205	207	Med. Hd. White Limerock
			207	208	Cavity (With Sand)
			208	282	Soft White Limerock
			282	284	Hard White Limerock
			284	342	Soft White Limerock
			342	343	Cavity

COMPLETED

Cuttings sent to District? ( ) Yes (X) No

Page 2

09588 0135

CENTRAL FLORIDA WELL DRILLERS, INC. 3720 N. ORANGE BLOSSOM TRIAL, ORLANDO, FL 328

better business forms, inc. Gainesville, FL — (904) 377-1278

WELL COMPLETION REPORT (USE BALL POINT PEN PRESS FIRMLY)

Page 2

ST. JOHNS RIVER WATER MGT. DISTRICT

PERMIT NO.

Keith McKeen	4500 N. Hiawassee Road	Orlando	Florida	32818
Owner	Address	City	State	Zip
[signature]	1971	March 1, 1988	282'	343'
Contractor's Signature	Licence No.	Completion Date	4" CASING DEPTH	Total Depth
Robert C. Stewart	30262			
Driller's Signature	Registration No.			

MAR 1 1 1988

MAIL ROOM

Type of work: Construct X Repair ____ Abandon ____

Well Use: Private ____ Public ____ Monitor ____ Irrigation X

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool X Jet ____ Combination ____

Other ____

Casing: Black Steel 4" Galvanized ____ PVC ____ Other ____

Screened From ____ Ft to ____ Ft.

Bags of Grout 1 Interval Grouted 0 Ft. to 3 Ft.

Static Water Level 23 Ft. below Top of Casing

Pumping Water Level ____ Ft. after ____ Hrs. at ____ GPM

Pump Size 3 H.P. Capacity 50 GPM

N

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary
2" 0-3'	4"	282			
			152	184	Soft White Limerock
			184	185	Med. Hd. White Limerock
			185	186	Cavity (Dark Water)
			136	205	Soft White Limerock
			205	207	Med. Hd. White Limerock
			207	208	Cavity (With Sand)
			208	282	Soft White Limerock
			282	284	Hard White Limerock
			284	342	Soft White Limerock
			342	343	Cavity

WELL LOCATION

Address 4500 N. Hiawassee Road

Subdivision ____ Lot # ____

Latitude - Longitude ____

County Orange

Section	Township	Range
2	22S	28E

Located Near

1988

RECORDS PALATKA

COMPLETED

Cuttings sent to District? ( ) Yes (X) No

Page 2

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. WD9646

Owner	Address	City	State	Zip
Housworth Homes	7227 Cook Lane	Winter Park	Fl	32792

Contractors Signature	License No.	Completion Date	CASING DEPTH	Total Depth
Richard Joyce	1364	6-3-87	79'	210'

Drillers Signature	Registration No.
Tommy Myers	30523

CASING DEPTH 09587 0259

Type of work: Construct ✓ Repair ____ Abandon ____

Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ____ Jet ____ Combination ✓

Other ____

Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout 02 Interval Grouted 0 Ft. to 3 Ft.

Static Water Level 55 Ft. below Top of Casing

Pumping Water Level 57 Ft. after 2 Hrs. at 40 GPM

Pump Size 1 H.P. Capacity 25 GPM

N

WELL LOCATION

Address 3621 Apopka-Vineland Road

Subdivision ____ Lot # ____

Latitude - Longitude ____

County Orange

Section	Township	Range
3	22S	28E

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
2"X3'	4"	79	0	20	Sand
			20	40	" & Clay
			40	60	" "
			60	72	" "
			72	79	Hard gray Rock
			79	85	" " "
			85	105	Rock, Porous
			105	125	Porous Rock
			125	145	" "
			145	165	" "
			165	185	" "
			185	205	" "
			205	210	Open Hole

ENTERED FOR

Cuttings sent to District? ( ) Yes (X) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

0958 7030 PERMIT NO. WD 9748

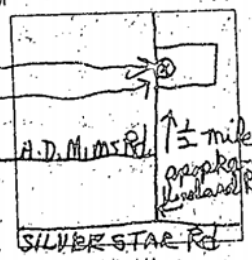
M.C. LANDSCAPING — 5448 JETVIEW CIRCLE — TAMPA — FL — 33634
Owner — Address — City — State — Zip

Richard Jones — 1364 — 7-27-87 — 83' — 200'
Contractors Signature — License No. — Completion Date — CASING DEPTH — Total Depth

Drillers Signature — 30523 — Registration No.

Type of work: Construct XXX Repair ____ Abandon ____
Well Use: Private ____ Public ____ Monitor ____ Irrigation XX
Industrial ____ Recharge ____ Other ____
Method: Rotary ____ Cable Tool ____ Jet ____ Combination XX
Other ____
Casing: Black Steel XX Galvanized ____ PVC ____ Other ____
Screened From ____ Ft. to ____ Ft.
Bags of Grout ____ Interval Grouted ____ Ft. to ____ Ft.
Static Water Level 65' Ft. below Top of Casing
Pumping Water Level 66½ Ft. after 1 Hrs. at 50 GPM
Pump Size 3 H.P. Capacity 45 GPM

WELL LOCATION
Address APOPKA-VINELAND RD
WEST OF ORLANDO
COUNTRY RUN — 4
Subdivision — Lot #
Latitude - Longitude
County ORANGE
3 — 22S — 28E — SILVER STAR Rd
Section — Township — Range — Located Near



Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
2'x3'	4"	83	0	20	Sand & clay
			20	40	" "
			40	60	" " + shell
			60	66	" " "
			66	83	Hard Rock
			83	103	" "
			103	123	" "
			123	143	" "
			143	163	" "
			163	183	" "
			183	194	" "
			194	200	Open Hole
					CAPPED EOP

Cuttings sent to District? ( ) Yes (X) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY) 095870338 PERMIT NO. 9758

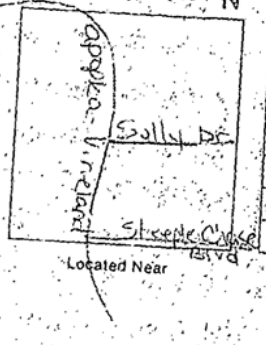
Belmont Homes 2350 Ridgewood Dr Edgewater Fl. 32032
Owner Address City State Zip

Contractors Signature #1127 License No. Aug. 21 1987 Completion Date 80' CASING DEPTH 155' Total Depth

Drillers Signature Registration No.

Type of work: Construct ✓ Repair ____ Abandon ____
Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____
Industrial ____ Recharge ____ Other ____
Method: Rotary ____ Cable Tool ____ Jet ✓ Combination ____
Other ____
Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____
Screened From ____ Ft. to ____ Ft.
Bags of Grout ____ Interval Grouted ____ Ft. to ____ Ft.
Static Water Level 68' Ft. below Top of Casing
Pumping Water Level ____ Ft. after ____ Hrs. at ____ GPM
Pump Size 1 H.P. Capacity ____ GPM

WELL LOCATION
Address 7935 Sully Dr.
Subdivision Lot #
Latitude - Longitude
County Orange.
Section 3 Township 22S Range 28E



Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"		0	75	Rock lt. green, hard
water			75	100	Rock green Hard
at 68'			100	140	Rock green soft Hard.
			140	155	Lime Rock Hard

Cuttings sent to District? ( ) Yes (✓) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11432

James Drunat — 2508 Good Homes Rd — 81

Owner — Address — City — State — Zip

Challie Smithwick — 2379 — Jan 25/90 — 52 — 115

Contractors Signature — License No. — Completion Date — CASING DEPTH — Total Depth

095-90-0170

Drillers Signature — Registration No.

Type of work: Construct ✓ Repair ____ Abandon ____

Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ✓ Jet ____ Combination ____

Other ____

Casing: Black Steel 4" Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout ____ Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 30 Ft. below Top of Casing

Pumping Water Level 63 Ft. after 1 Hrs. at 20 GPM

Pump Size ✓ H.P. Capacity ____ GPM

WELL LOCATION

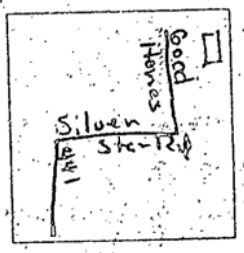
Address 2508 Good Homes Rd

Subdivision ____ Lot # ____

Latitude - Longitude ____

County Orange

Section 3 — Township 22S — Range 28E



Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
			0	40	SAND CLAY
			40	50	CLAY Rock
			50	60	Rock
			60	80	Rock MUD
			80	100	Rock
			100	115	LIME Rock

RECEIVED
MAR 09 1990
RECORDS
Palatka

Cuttings sent to District? ( ) Yes ( ) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. _____

Don Graham 999 - Clarcona Rd. Fla

Owner | Address | City | State | Zip

Charlie Smithwick 2379 7/18/89 147 185

Contractors Signature | License No. | Completion Date | CASING DEPTH | Total Depth

Drillers Signature | Registration No.

Type of work: Construct ✓ Repair ____ Abandon ____

Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ✓ Jet ____ Combination ____

Other ____

Casing: Black Steel 4" Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout 2 Interval Grouted 2 Ft. to 3 Ft.

Static Water Level 45 Ft. below Top of Casing

Pumping Water Level 50 Ft. after 1 Hrs. at 27 GPM

Pump Size 1 H.P. Capacity ____ GPM

N

WELL LOCATION

Address 9997 Clarcona Ocoee Rd.

Subdivision ____ Lot # ____

Latitude - Longitude ____

County Orange

3 22S 28E

Section | Township | Range

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
			0	21	SAND
			21	42	SAND CLAY
			42	83	" CLAY Rock
			63	84	" " "
			84	105	" MUD Rock
			105	126	" CLAY Rock
			126	147	@ Rock LIME
			147	168	LIME Rock
			168	185	" " WATER

Cuttings sent to District? ( ) Yes ( ) No

095880109

WELL COMPLETION REPORT

(USE BALL POINT PEN – PRESS FIRMLY)

10138
PERMIT NO.

Michael & Sue Quinlin
OWNER

2515 Hemple Ave Gotha Fl Top
ADDRESS CITY STATE ZIP

[signature]
CONTRACTOR SIGNATURE

1241
LICENSE NO.

3/24/88 241' 345'
COMPLETION DATE CASING DEPTH TOTAL DEPTH

Top 3" Cemented

TYPE OF WORK: CONSTRUCT ✓ REPAIR ___ ABANDON ___

WELL USE: PRIVATE ✓ PUBLIC ___ MONITOR ___

IRRIGATION ___ RECHARGE ___ OTHER ___

METHOD: ROTARY ___ CABLE TOOL ✓ JET ___

SANDPOINT ___ COMBINATION ___ OTHER ___

CASING: BLK. STEEL ✓ GALVANIZED ___ PVC ___ OTHER ___

BAGS OF GROUT: 1 OPEN HOLE ✓ SCREENED ___

STATIC WATER LEVEL 75 FT. BELOW TOP OF CASING

PUMPING WATER LEVEL ___ FT. AFTER ___ HRS. AT ___ GPM

PUMP SIZE 1½ H.P. CAPACITY 25 GPM

LOCATION: SECTION 4 TOWNSHIP 22S RANGE 28E

COUNTY Orange

GROUT Thickness and Depth	CASING Diameter and Depth		DEPTH (ft.) From	To	Examine cuttings at changes in formations. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
3"	0	10			Sand, Brown Soft
~~10~~	10	15			Hard Pan, Brown
15	15	80			Sand, Brown, Soft,
	80	120			Clay, Sand, Green, Soft
	120	130			Clay, " " "
	130	180			Clay & Shell Green, S
	180	184			Clay, Green, Soft
	184	190			Lime & Chert hard
	190	198			Clay & sand, White, S
	198	206			Heaving Sand, White, S
	206	207			Clay, White, Soft
	207	218			" " "
	218	238			Lime, White, med H
	238	290			", Brown, Hard
Cement Casing Lower 5'					
	290 – 345				Lime, Brown hard
	Cemented Top 3' casing				

COMPLETED

[signature]
Driller's Signature

31122
Registration No.

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11962

Clifford W Stephenson — Owner
10,000 Stephenson Way — Address
Apopka — City
Fl — State
32703 — Zip

[signature] — Contractors Signature
7099 — License No.
12/16/90 — Completion Date
63' — CASING DEPTH
90' — Total Depth
095-90-0183

[signature] — Drillers Signature
30866 — Registration No.

Type of work: Construct ✓ Repair ___ Abandon ___

Well Use: Private ✓ Public ___ Monitor ___ Irrigation ___

Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool ✓ Jet ___ Combination ___

Other ___

Casing: Black Steel ✓ Galvanized ___ PVC ___ Other ___

Screened From ___ Ft. to ___ Ft.

Bags of Grout 1 Interval Grouted ___ Ft. to ___ Ft.

Static Water Level 35 Ft. below Top of Casing

Pumping Water Level ___ Ft. after ___ Hrs. at ___ GPM

Pump Size ___ H.P. Capacity ___ GPM

N

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"	63	0	20	Sand
			20	40	Sand & Mud
			40	60	Green Clay
			60	85	Gray Lime Rock
			85	90	Water

WELL LOCATION

Address 10000 Stephenson Way Apopka Fl

Subdivision ___ Lot # ___

Latitude - Longitude ___

County Orange

Section 4 Township 22 S Range 28E

Located Near

Cuttings sent to District? ( ) Yes ✓ No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. _____

S & E Contractors Inc. 14541 58th St. No. Clearwater FL 34620
Owner — Address — City — State — Zip

Fred Summary — 2321 — 12-1-91 — 110' — 150'
Contractor's Signature — License No. — Completion Date — CASING DEPTH — Total Depth

B. Peterson
Driller's Signature — Registration No.

Type of work: Construct X Repair ____ Abandon ____
Well Use: Private X Public ____ Monitor ____ Irrigation ____
Industrial ____ Recharge ____ Other ____
Method: Rotary ____ Cable Tool ____ Jet ____ Combination X
Other ____
Casing: Black Steel X Galvanized ____ PVC ____ Other ____
Screened From 110' Ft. to 150 Ft.
Bags of Grout — Interval Grouted ____ Ft. to ____ Ft.
Static Water Level 65 Ft. below Top of Casing
Pumping Water Level 80' Ft. after 1 Hrs. at 75 GPM
Pump Size 5 H.P. Capacity 90 GPM

WELL LOCATION
Address 2200 CLARK RD
OLDSMAR
Subdivision — Lot #
Latitude - Longitude
County ORANGE
21 — 22S — 28E
Section — Township — Range

Located Near

N

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities indicate producing zones. Attach additional sheets if necessary.
	6"	110'	0	80	Sand
			80	85	Hard Rock
			85'	110	Clay Sand
			110'	120	Rock
			120'	140	Clay Rock
			140	150	Rock

RECEIVED
MAR 16 1992
RECORDS
Melbourne

Cuttings sent to District? ( ) Yes (X) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 10300

Rosa Alba 315 Pennsylvania Ave Orlando 32
Owner Address City State Zip

C. Dodge 1980 6-6-88 105 115
Contractor's Signature License No. Completion Date CASING DEPTH Total Depth

Jim Dodge 31099 09588 0333
Driller's Signature Registration No.

Type of work: Construct ✓ Repair ____ Abandon ____
Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____
Industrial ____ Recharge ____ Other ____
Method: Rotary ____ Cable Tool ✓ Jet ____ Combination ____
Other ____
Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____
Screened From [illegible] Ft. to [illegible] Ft.
Bags of Grout 1 Interval Grouted Top Ft. to 3 Ft.
Static Water Level 36 Ft. below Top of Casing
Pumping Water Level 36 Ft. after 6 Hrs. at 30 GPM
Pump Size 1 H.P. Capacity 30 GPM

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
3'	4"				
Top Soil					Top - 60'
clay - yellow					60' - 85
Black Rock					85 - 105
Cavity					105 - 115

WELL LOCATION

Address Burchard Park
Subdivision 3½ Lot # of Lot 2
Subdivision

Latitude - Longitude

County Orange
Section 21 Township 22 Range 28

Located Near

COMPLETED
FILMED

Cuttings sent to District? ( ) Yes X No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11544

Owner: Michael Wise | Address: 8320 White Rd. | City: Orlando Fla. | State: | Zip:

Contractor Signature: Steve Perry | License No.: 7097 | Completion Date: 3-27-90 | Casing Depth: 70' | Total Depth: 110'

Driller Signature: Steve Perry | Registration No.:

Type of work: Construct ✓ Repair ___ Abandon ___

Well Use: Private ___ Public ___ Monitor ___ Irrigation ✓ Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool ✓ Jet ___ Combination ___ Other ___

Casing: Black Steel ✓ Galvanized ___ PVC ___ Other ___

Screened From ___ Ft. to ___ Ft.

Bags of Grout ___ Interval Grouted ___ Ft. to ___ Ft.

Static Water Level 90 Ft. below Top of Casing

Pumping Water Level 80 Ft. after 1 Hrs. at 20 GPM

Pump Size 1 H.P. Capacity 20 GPM

WELL LOCATION

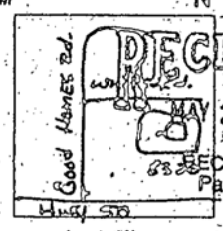
Address: 8320 White Rd. Orlando Fla.

Subdivision ___ Lot # ___

Latitude - Longitude ___

County: Orange

Section: 22 | Township: 22S | Range: 28E



Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (Ft.) From	Depth (Ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Note color, grain-size and type of material. Note any artesian, freshwater producing zones. Attach additional sheets if necessary.
			0	40	Sand
				60	Green Sandy clay
				69	Green clay
				70	Rock
				75	hard Rock
				110	clay & water

Cuttings sent to District? ( ) Yes ( ) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 12121

Owner: Bob Muelber | Address: 8529 Snowfire | City: Orlando, FL | State: | Zip: 32818

Contractors Signature: Charles Dodge | License No.: 1980 | Completion Date: April 03, 91 | CASING DEPTH: 63 | Total Depth: 135

Unit Operator: James Dodge | Registration No.: 31099

Type of work: Construct ✓ Repair ___ Abandon ___

Well Use: Private ___ Public ___ Monitor ___ Irrigation ✓

Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool ✓ Jet ___ Combination ___

Other ___

Casing: Black Steel ✓ Galvanized ___ PVC ___ Other ___

Screened From 0 Ft. to 0 Ft.

Bags of Grout 1 Interval Grouted 0 Ft. to 63 Ft.

Static Water Level 60 Ft. below Top of Casing

Pumping Water Level 60 Ft. after 1 Hrs. at 25 GPM

Pump Size 1 1/2 H.P. Capacity 25 GPM

WELL LOCATION

Address 8529 Snowfire

Rose Hill

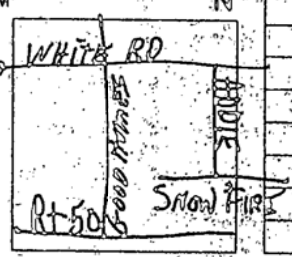
Subdivision | Lot #

Latitude - Longitude

County Orange

22 | 22 | 28

Section | Township | Range



Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
0-63	4	63			
			0	27	Top Soil
			27	49	Gr
			49	63	Hard Rock
			63	131	Flint Rock
			131	135	Cavity

Cuttings sent to District? ( ) Yes (✓) No

09587 0438

WELL COMPLETION REPORT 9821
(USE BALL POINT PEN – PRESS FIRMLY) PERMIT NO.

Home Owners Association of Steeple Chase
OWNER

Frontage Steeple Chase Blvd. Orl. Fl.
ADDRESS CITY STATE ZIP

Willard Ames C 2106
CONTRACTOR SIGNATURE LICENSE NO.

9-5-87 78' 188'
COMPLETION DATE CASING DEPTH TOTAL DEPTH

TYPE OF WORK: CONSTRUCT X REPAIR ___ ABANDON ___

WELL USE: PRIVATE ___ PUBLIC ___ MONITOR ___

IRRIGATION X RECHARGE ___ OTHER ___

METHOD: ROTARY ___ CABLE TOOL X JET ___

SANDPOINT ___ COMBINATION ___ OTHER ___

CASING: BLK. STEEL X GALVANIZED ___ PVC ___ OTHER ___

BAGS OF GROUT: ___ OPEN HOLE X SCREENED ___

STATIC WATER LEVEL 71 FT. BELOW TOP OF CASING

PUMPING WATER LEVEL 71 FT. AFTER 3 HRS. AT 45 GPM

PUMP SIZE 1½ H.P. CAPACITY 45 GPM

LOCATION: SECTION 2 TOWNSHIP 22 RANGE 28

COUNTY Orange

GROUT Thickness and Depth	CASING Diameter and Depth		DEPTH (ft.) From	To	Examine cuttings or changes in formations. Give color, grain size and type of material. Note any cavities, indicate producing zones. Attach additional sheets if necessary.
	4"	78'	0	30	Sand
			30	70	Shell & clay
			70	128	Gray lime, chert & clay
			128	138	Cavity
			138	188	White lime

ENTERED FOR

Willard Ames C 2106
Driller's Signature Registration No.

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 87-04-515

Contemporary Const. 840 St Rd 434 Suite A2 Alt Spr 71 32714
Owner — Address — City — State — Zip

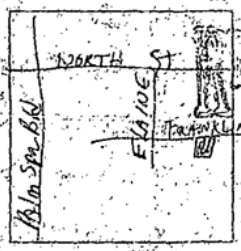
Contractors Signature — License No. 2102 — Completion Date 6-9-87 — CASING DEPTH 89 — Total Depth 107

Driller Signature — Registration No. 30965

Type of work: Construct ✓ Repair ___ Abandon ___
Well Use: Private ✓ Public ___ Monitor ___ Irrigation ___
Industrial ___ Recharge ___ Other ___
Method: Rotary ___ Cable Tool ✓ Jet ___ Combination ___
Other ___
Casing: Black Steel ___ Galvanized ___ PVC ___ Other ___
Screened From ___ Ft. to ___ Ft.
Bags of Grout 1 Interval Grouted 0 Ft. to 7 Ft.
Static Water Level 32 Ft. below Top of Casing
Pumping Water Level ___ Ft. after ___ Hrs. at ___ GPM
Pump Size 1 H.P. Capacity 20 GPM

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
0-3		4"	0	20	Sand
		"	20	40	Clay & Sand
		"	40	80	Clay & Gravel
		"	80	89	Salt water
		"			
		4"	89	100	Lime Rock
		"	100	105	" "
		"	105	107	Stream

WELL LOCATION
Address Atlantic
South Springs
Block 3 10-11
Subdivision Lot #
Latitude - Longitude
County Seminole
2 22 28
Section Township Range



Located Near

AUG 12 1988
RECORDS
PALATKA

Cuttings sent to District? ( ) Yes (✓) No

095870265

WELL COMPLETION REPORT

(USE BALL POINT PEN – PRESS FIRMLY)

9659 PERMIT NO.

S & B Builders OWNER

Lot 23 Steeple Chase ADDRESS Orlando CITY FL STATE ZIP

Willard Ames CONTRACTOR SIGNATURE C 2106 LICENSE NO.

6-23-84 COMPLETION DATE 76' CASING DEPTH 185' TOTAL DEPTH

TYPE OF WORK: CONSTRUCT ✓ REPAIR ___ ABANDON ___

WELL USE: PRIVATE ✓ PUBLIC ___ MONITOR ___

IRRIGATION ___ RECHARGE ___ OTHER ___

METHOD: ROTARY ___ CABLE TOOL ✓ JET ___

SANDPOINT ___ COMBINATION ___ OTHER ___

CASING: BLK. STEEL ✓ GALVANIZED ___ PVC ___ OTHER ___

BAGS OF GROUT: ___ OPEN HOLE ✓ SCREENED ___

STATIC WATER LEVEL 74 FT. BELOW TOP OF CASING

PUMPING WATER LEVEL 74 FT. AFTER 2 HRS. AT 30 GPM

PUMP SIZE 1½ H.P. CAPACITY 30 GPM

LOCATION: SECTION 2 TOWNSHIP 22 RANGE 28

COUNTY Orange

GROUT Thickness and Depth	CASING Diameter and Depth	DEPTH (ft.) From	DEPTH (ft.) To	Examine cuttings at changes in formations. Give color, grain-size and type of material. Note any cavities, indicate producing zones. Attach additional sheets if necessary.
	4" 76	0	50	Water sand
		50	65	Green clay & shell
		65	90	Hard gray lime
		90	128	Gray lime with chat (hard)
		128	132	Caverty
		132	185	Lime rock (white) Hard to drill

Willard Ames Driller's Signature

C 2106 Registration No.

095870365

WELL COMPLETION REPORT

(USE BALL POINT PEN – PRESS FIRMLY)

9800
PERMIT NO.

S & B Builders
OWNER

4824 Polo Court
Lot 10 Steeple Chase
ADDRESS

Orlando
CITY

Fl.
STATE

ZIP

Willard Ames
CONTRACTOR SIGNATURE

C 2106
LICENSE NO.

8-24-87
COMPLETION DATE

76'
CASING DEPTH

173'
TOTAL DEPTH

TYPE OF WORK: CONSTRUCT X REPAIR ___ ABANDON ___

WELL USE: PRIVATE X PUBLIC ___ MONITOR ___

IRRIGATION ___ RECHARGE ___ OTHER ___

METHOD: ROTARY ___ CABLE TOOL X JET ___

SANDPOINT ___ COMBINATION ___ OTHER ___

CASING: BLK. STEEL X GALVANIZED ___ PVC ___ OTHER ___

BAGS OF GROUT: ___ OPEN HOLE X SCREENED ___

STATIC WATER LEVEL 70 FT. BELOW TOP OF CASING

PUMPING WATER LEVEL 71 FT. AFTER 2 HRS. AT 30 GPM.

PUMP SIZE 1 H.P. CAPACITY 35 GPM

LOCATION: SECTION 02 TOWNSHIP 22 RANGE 28

COUNTY Orange

GROUT Thickness and Depth	CASING Diameter and Depth		DEPTH (ft.) From	To	Examine cuttings at changes in formations. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"	76'	0	40	Sand
			40	65	Clay & shell
			65	95	Real hard chert & gray lime streaks of clay
			95	130	Gray lime mixed with streaks of clay
			130	173	White lime

REC
SEP 21 1987
RECORDS
PALATKA

Willard Ames
Driller's Signature

C 2106
Registration No.

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11837

Kerry Wamsley 8608 Shenna Ct. Orlando, Fla,

Owner | Address | City | State | Zip

Contractors Signature | License No. | Completion Date | CASING DEPTH | Total Depth

Sept. 15, 1990 | 60' | 125'

095-90-0464

Drillers Signature | Registration No.

Type of work: Construct XXXX Repair ____ Abandon ____

Well Use: Private ____ Public ____ Monitor ____ Irrigation XXXX

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool XXX Jet ____ Combination ____

Other ____

Casing: Black Steel XXX Galvanized ____ PVC ____ Other ____

Screened From 0 Ft. to 0 Ft.

Bags of Grout 1 Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 30' Ft. below Top of Casing

Pumping Water Level 32 Ft. after 2 Hrs. at 25 GPM

Pump Size 1 H.P. Capacity 25 GPM

N

WELL LOCATION

Address 8608 Shenna Ct.

Orlando, Fla,

Shenna Hills 7

Subdivision Lot #

Latitude - Longitude

County ORANGE

22 22S 28E

Section Township Range

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.

RECEIVED
OCT 15 1990
RECORDS
Florida

Cuttings sent to District? ( ) Yes (X) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11867

Neville Solan 8650 Shenna Ct. Orlando, Fla.

Owner	Address	City	State	Zip
[signature]	2755	10-8-90	70'	130'
Contractors Signature	License No.	Completion Date	CASING DEPTH	Total Depth

095-90-0166

Drillers Signature — Registration No.

Type of work: Construct XXXXX Repair ____ Abandon ____

Well Use: Private ____ Public ____ Monitor ____ Irrigation XXXXX

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool XXXXX Jet ____ Combination ____

Other ____

Casing: Black Steel 4" Galvanized ____ PVC ____ Other ____

Screened From 0 Ft. to 0 Ft.

Bags of Grout 1 Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 35 Ft. below Top of Casing

Pumping Water Level 35 Ft. after 3 Hrs. at 25 GPM

Pump Size 1 H.P. Capacity 25 GPM

N

WELL LOCATION

Address 8650 Shenna Ct.

Orl. Fla.

Shenna Hills
Subdivision — Lot #

Latitude - Longitude

County Orange

22 — 22S — 28E
Section — Township — Range

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary
dry	bentonite- annular top to bottom				
	4"	70'			
			0	65	yellow to white sand
			65	70	green/blue clay
			70	130	off-white to yellow porous broken lime-stone

RECEIVED
OCT 15 1990
WATER RESOURCE RECORDS
Palatka

Cuttings sent to District? ( ) Yes (XX) No

095-90-0191

Geological Survey No. FLORIDA WATER WELL AND PUMP RECORD Permit No. 1 1 6 4 0

1 Location of Well								
County	Township Name	Fraction			Section Number	Town Number		Range Number	
ORANGE ORA		1/4	1/4	1/4	22	22	N/S	28	E/W

Distance and Direction From Road Intersection

8318 HONOLULU DR.
ORLANDO

Street Address and City of Well Location

Sketch Map

2 FORMATION DESCRIPTION	Thickness of Stratum	Depth to Bottom of Stratum
SAND	0	20
CLAY	20	40
MEDIUM ROCK	40	100
HARD ROCK	100	120
CAVITY	120	125

RECEIVED
JUN 2 2 1990
RECORDS
Palatka

15 Remarks, elevation, source of data, etc.

Rig Operator's Name DOUG SPENCER

16 WATER WELL CONTRACTOR'S CERTIFICATION
This well was drilled under my jurisdiction, and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME APOPKA WELL & PUMP
REGISTRATION NUMBER 2102
ADDRESS P.O. BOX 2719 DATE
SIGNED (Authorized Representative)

3 Owner of Well LAIL, MIKE
Address 8318 HONOLULU DR.
ORLANDO FL 32818-
Address Same as Well Location? Yes

4 Well Depth (Completed) 125' ft. | Date of Completion 06/01/90 New Well

5 Drilling Method CABLE TOOL

6 Proposed Use DOMESTIC

7 Casing SCH 40 BLACK IR 4 in. to ft. depth | Height Above Surface 2 ft.
in. to ft. depth | Weight 200 lbs./ft.
Grouted Drill Hole Diameter
in. to ft. depth | Drive Shoe Yes
in. to ft. depth

8 Screen Not Installed

9 Static Water Level 39 Ft. Below Land Surface Flow

10 Pumping Level Below Land Surface
39 ft. after 1 hrs. pumping at 20 G.P.M.
ft. after hrs. pumping at G.P.M.

11 Well Head Completion N/A

12 Well Grouted Yes From to ft.
BENTONITE
No. of bags of cement 2 Additives

13 Nearest Source of Possible Contamination
Type SEWAGE Distance 75 Direction
Well disinfected upon completion? Yes
Has old well plugged? No

14 Pump Installed Pump Installation Only? No
Manufacturer's Name STA - RITE
Model Number 20P HP 1 Volts 230
Length of Drop Pipe 63 ft. Capacity 20
Type SUBMERSIBLE Jet N/A
Pressure Tank Name CON AIR
Pressure Tank Model GALV. 82 GAL.

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. OCHD# 11605

Westmore Home Owners Association, 112 Bridadoon Point, Orlando, Florida 32811

Owner	Address	City	State	Zip
[signature]	1971	May 8, 1990	103'8"	217'

Contractor Signature	License No.	Completion Date	CASING DEPTH	Total Depth
David A. Stewart, Jr.	30265			095-90-0167

Driller Signature — Registration No.

Type of work: Construct X Repair ___ Abandon ___

Well Use: Private ___ Public ___ Monitor ___ Irrigation X

Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool X Jet ___ Combination ___

Other ___

Casing: Black Steel 4" Galvanized ___ PVC ___ Other ___

Screened From ___ Ft. to ___ Ft.

Bags of Grout 1 Interval Grouted Aqua-Gel Aqua-Gel Ft.

Static Water Level 74 Ft. below Top of Casing

Pumping Water Level ___ Ft. after ___ Hrs. at ___ GPM

Pump Size 5 H.P. Capacity 60 GPM

WELL LOCATION

Address Pengrove Pass & Westmore Bend Blvd.

Subdivision ___ Lot # ___

Latitude - Longitude

County Orange

Section	Township	Range	Located Near
26	22S	28E	

RECEIVED MAY 17 1990 RECORDS Palatka

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
1 Bag of Aqua-Gel					
	4"	103	8"		
			0	40	Sand
			40	80	Clay and Sand
			80	102	Clay and Gravel
			102	105	Hard Gray Rock
			105	130	Very Stiff Clay & Grave
			130	140	Med. Hd. White Limerock
			140	170	Soft White Limerock
			170	173	Cavity
			173	217	Soft White Limerock

Cuttings sent to District? ( ) Yes (X) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11482

Vera Miles 4505 Rolleh St. Orlando 71 32811

Owner | Address | City | State | Zip

[signature] 2112 2-24-90 77' 147'

Contractors Signature | License No. | Completion Date | CASING DEPTH | Total Depth

[signature] 30756 095-90-0175

Drillers Signature | Registration No.

Type of work: Construct ✓ Repair ___ Abandon ___

Well Use: Private ✓ Public ___ Monitor ___ Irrigation ___

Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool ✓ Jet ___ Combination ___

Other ___

Casing: Black Steel ✓ Galvanized ___ PVC ___ Other ___

Screened From ___ Ft. to ___ Ft.

Bags of Grout ___ Interval Grouted ___ Ft. to ___ Ft.

Static Water Level ___ Ft. below Top of Casing

Pumping Water Level ___ Ft. after ___ Hrs. at ___ GPM

Pump Size 1 H.P. Capacity 20 GPM

N

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
3"-6"	4"	77	0	40	Sand & Clay
			40	60	Clay
			60	80	Clay & Rock
			80	100	Rock
			100	140	Rock
			140	147	Stream

RECEIVED MAR 16 1990 RECORDS Palatka

WELL LOCATION

Address 7116 W. Livingston St Orlando 71

Subdivision ___ Lot # 33

Latitude - Longitude ___

County Orange

Section 26 Township 22 Range 28

Located Near

Cuttings sent to District? ( ) Yes ( ) No

095-90-0184

Geological Survey No. FLORIDA WATER WELL AND PUMP RECORD Permit No. 1 1 4 6 2

1 Location of Well

County	Township Name	Fraction	Section Number	Town Number	Range Number
ORANGE_ORA		1/4 1/4 1/4	26	22 N/S	28 E/W

Distance and Direction From Road Intersection

7116 W. LIVINGSTON
ORLANDO

Street Address and City of Well Location

Owner of Well: MILES, VERA

Address 4505 RALIEGH ST.
ORLANDO FL 32811-

Address Same as Well Location? No

Sketch Map

4 Well Depth (Completed) 147 Ft. | Date of Completion 02/22/90 | New Well

5 Drilling Method CABLE TOOL

6 Proposed Use DOMESTIC

2 FORMATION DESCRIPTION	Thickness of Stratum	Depth to Bottom of Stratum
SAND	0	30
CLAY	30	60
MEDIUM ROCK	60	70
HARD ROCK	70	135
CAVITY	135	140
HARD ROCK	140	145
CAVITY	145	147

7 Casing SCH 40 BLACK IR | Height Above
4 in. to ft. depth | Surface 2 ft.
in. to ft. depth | Weight 200 lbs./ft.
Grouted Drill Hole Diameter
in. to ft. depth | Drive Shoe Yes
in. to ft. depth

8 Screen Not Installed

9 Static Water Level 50 Ft. Below Land Surface Flow

10 Pumping Level Below Land Surface
50 ft. after 1 hrs. pumping at 20 G.P.M.
ft. after hrs. pumping at G.P.M.

11 Well Head Completion N/A

12 Well Grouted Yes From to ft.
BENTONITE
No. of bags of cement 2 Additives

13 Nearest Source of Possible Contamination
Type SEWAGE Distance 75 Direction
Well disinfected upon completion? Yes
Was old well plugged? No

14 Pump Installed Pump Installation Only? No.
Manufacturer's Name STA - RITE
Model Number 20P HP 1 Volts 230
Length of Drop Pipe 84 Ft. Capacity 20
Type SUBMERSIBLE Jet N/A
Pressure Tank Name CON AIR
Pressure Tank Model CA82

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Palatka

15 Remarks, elevation, source of data, etc.

Rig Operator's Name EMMETT HART

16 WATER WELL CONTRACTOR'S CERTIFICATION
This well was drilled under my jurisdiction, and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME APOPKA WELL & PUMP
REGISTRATION NUMBER 2102
ADDRESS P.O. BOX 2719
DATE 7-5-90
SIGNED _____ (Authorized Representative)

CENTRAL FLORIDA WELL DRILLERS, INC. Bostler Business Forms, Inc. Gainesville, FL 32601 3720 N. ORANGE BLOSSOM TRAIL, ORLANDO, FL 32...

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. OCHD #10879

Owner	Address	City	State	Zip
West Orange Plaza	Hiawassee & Colonial Drive	Orlando	Florida	32818

Contractor Signature	License No.	Completion Date	CASING DEPTH	Total Depth
David A. Stewart	1971	March 30, 1989	196'6"	275'

Driller Signature	Registration No.	
David A. Stewart, Jr.	30265	095890225

Type of work: Construct X Repair ___ Abandon ___

Well Use: Private ___ Public ___ Monitor ___ Irrigation X

Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool X Jet ___ Combination ___

Other ___

Casing: Black Steel 4" Galvanized ___ PVC ___ Other ___

Screened From ___ Ft. to ___ Ft.

Bags of Grout 1 Interval Grouted 0 Ft. to 3 Ft.

Static Water Level 50 Ft. below Top of Casing

Pumping Water Level ___ Ft. after ___ Hrs. at ___ GPM

Pump Size 5 H.P. Capacity 70 GPM

N

WELL LOCATION

Address Hiawassee & Colonial Drive

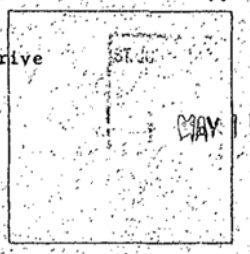
Orlando, Florida

Subdivision ___ Lot # ___

Latitude - Longitude ___

County Orange

Section	Township	Range
26	22S	28E



Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities indicate producing zones. Attach additional sheets if necessary.
2" 0-3'	4"	196'6"			
			0	50	Sand
			50	90	Clay and Sand
			90	92	Gravel Bed
			92	160	Sloppy Clay
			160	196	Soft White Limerock
			196	198	Hard White Limerock
			198	260	Soft White Limerock
			260	265	Cavity
			265	275	Soft White Limerock

MAY 15 1989

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MAY 15 1989

RECORDS PALATKA

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Cuttings sent to District? ( ) Yes ( ) No

WELL COMPLETION REPORT (USE BALL POINT PEN. PRESS FIRMLY)

PERMIT NO. 11693

Owner: East-West Expressway Authority Address: 525 S. Magnolia Avenue City: Orlando State: Florida Zip: 32801

Contractors Signature: 2200 License No. 6-22-90 Completion Date 135' CASING DEPTH 180' Total Depth

Driller Signature: Registration No. 095-90-0162

Type of work: Construct XX Repair ____ Abandon ____

Well Use: Private ____ Public ____ Monitor ____ Irrigation XX

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool XX Jet ____ Combination ____

Other ____

Casing: Black Steel ____ XX Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout ____ Interval Grouted ____ Ft. to ____ Ft.

Static Water Level ____ Ft. below Top of Casing

Pumping Water Level ____ Ft. after ____ Hrs. at ____ GPM

Pump Size 5 H.P. Capacity ____ GPM

WELL LOCATION

Address: Old Winter Garden Road

Subdivision ____ Lot # ____

Latitude - Longitude ____

County: Orange

27 Section 22S Township 28E Range

Located Near ____

Grout Thickness & Depth	Casing Diam	Casing Depth	Depth (ft) From	Depth (ft) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"	135			Please see attatched

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Cuttings sent to District? ( ) Yes ( ) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11938

Owner	Address	City	State	Zip
Mr. Ladd	9024 Spence Ct.	Windemere,	Fl	34786

Contractors Signature	License No.	Completion Date	CASING DEPTH	Total Depth
[illegible]	SD0001127	12/5/90	100'	160'

Drillers Signature	Registration No.
Dan Lucks	30422

095-90-0182

Type of work: Construct X Repair ___ Abandon ___

Well Use: Private X Public ___ Monitor ___ Irrigation ___

Industrial ___ Recharge ___ Other ___

Method: Rotary X Cable Tool ___ Jet ___ Combination ___

Other ___

Casing: Black Steel X Galvanized ___ PVC ___ Other ___

Screened From ___ Ft. to ___ Ft.

Bags of Grout ___ Interval Grouted ___ Ft. to ___ Ft.

Static Water Level 51 Ft. below Top of Casing

Pumping Water Level ___ Ft. after ___ Hrs. at ___ GPM

Pump Size 1 H.P. Capacity ___ GPM

N

WELL LOCATION

Address 9024 Spence Ct.

Spence's Point 10

Subdivision Lot #

Latitude - Longitude

County Orange

27 22 28

Section Township Range

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"	100'	0	10	Sand
			10	20	Sand
			20	30	Sand clay
			30	40	Sand clay
			40	50	Clay & shell
			50	60	Clay shell
			60	70	[illegible] rock
			70	80	[illegible] rock
			80	90	[illegible] limerock
			90	100	White limerock
			100	120	White limerock
			120	160	White limerock

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RECORDS

Cuttings sent to District? ( ) Yes (✓) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. _____

Owner: abble Canacho Address: 1729 Torrey Dr. City: Orlando State: Fla. Zip: 195'

Contractor Signature: CWS License No.: 2379 Completion Date: 9/26/88 CASING DEPTH: 84' Total Depth: 095880482

Driller Signature: RRR Registration No.: _____

Type of work: Construct ✓ Repair ____ Abandon ____

Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____

Industrial ____ Recharge ✓ Other ____

Method: Rotary ____ Cable Tool ✓ Jet ____ Combination ____

Other ____

Casing: Black Steel 4" Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout 1 Interval Grouted 2 Ft. to 3 Ft.

Static Water Level 63' Ft. below Top of Casing

Pumping Water Level 84 Ft. after 1 Hrs. at 20 GPM

Pump Size 1 H.P. Capacity 20 GPM

WELL LOCATION

Address 1729 Torrey Dr Orl

Subdivision _____ Lot # _____

Latitude - Longitude _____

County Orange

Section 27 Township 22 Range 28

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
2x3	4"	84	0	50	Sand
			50	100	Sand mud
			100	150	mud
			150	175	Mud Rock
			175	195	mud Rock water

COMPLETED

FILMED

RECORDS PALATKA

Cuttings sent to District? ( ) Yes ( ) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 12402

Owner: Wyatt Anderson
Address: Windermere
City:
State:
Zip:

Contractor's Signature: Gary Frost
Licence No.: 2387
Completion Date: 12-4-91
CASING DEPTH: 64'
Total Depth: 240'

Driller's Signature:
Registration No.:

Type of work: Construct ✓ Repair ___ Abandon ___
Well Use: Private ✓ Public ___ Monitor ___ Irrigation ___
Industrial ___ Recharge ___ Other ___
Method: Rotary ___ Cable Tool ___ Jet ___ Combination ✓
Other ___
Casing: Black Steel ✓ Galvanized ___ PVC ___ Other ___
Screened From ___ Ft. to ___ Ft.
Bags of Grout ___ Interval Grouted 32" Ft. to — Ft.
Static Water Level 26 Ft. below Top of Casing
Pumping Water Level 28 Ft. after 10 Hrs. at 20 GPM
Pump Size 1 H.P. Capacity 20 GPM

WELL LOCATION
Address 0075 Carolina Ave

Subdivision ___ Lot #

Latitude - Longitude

County Orange

Section 28 Township 22S Range 28E

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
32"	4"	64'	0	32	Lt Gray Sand
			32	38	Bk Muck
			38	47	Lt Gray Sand (Clay)
			47	56	Lt Green Sandy Clay
			56	95	Lt Gray Rock
			95	100	" " "
			100	150	" " "
			150	240	Lt Brown Lime

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RECORDS
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Cuttings sent to District? ( ) Yes (X) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. _____

Troy Taylor — Owner | P.O. Box 4 — Address | Minneola — City | Fl — State | 32755 — Zip

Contractor Signature | 7015 — License No. | 1/26/89 — Completion Date | 226' — CASING DEPTH | 382' — Total Depth

069-810011

Drillers Signature | Registration No.

Type of work: Construct X Repair ___ Abandon ___

Well Use: Private X Public ___ Monitor ___ Irrigation ___

Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool ___ Jet ___ Combination X

Other ___

Casing: Black Steel X Galvanized ___ PVC ___ Other ___

Screened: From ___ Ft. to ___ Ft.

Bags of Grout 1 Interval Grouted 0 Ft. to 3 Ft.

Static Water Level 5 Ft. below Top of Casing

Pumping Water Level 5 Ft. after 5 Hrs. at 75 GPM

Pump Size 1 H.P. Capacity 20 GPM

N

WELL LOCATION

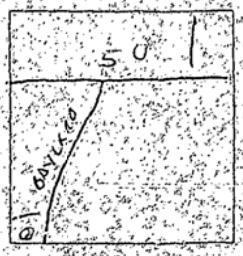
Address Bay Lake Rd Mascotte

Subdivision ___ Lot # ___

Latitude - Longitude ___

County Lake

28 Section | 22S Township | 28E Range



Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
2"x3'	4"	1	0	195	Sand
		1	195	212	Sandy Clay
		226	212	382	Rock

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RECORDS
PALATKA

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Cuttings sent to District? ( ) Yes (X) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11039

Owner	Address	City	State	Zip
Paris Bldg.	280 E. Hwy 50 Suite 460	Winter Garden	Fla.	32787

Contractors Signature	License No.	Completion Date	CASING DEPTH	Total Depth
Robert A Hunt	2102	6/19/89	751	1651

Drillers Signature	Registration No.
Doug Spencer	30767

095890359

Type of work: Construct ✓ Repair ____ Abandon ____

Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ✓ Jet ____ Combination ____

Other ____

Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout 1 Interval Grouted 0 Ft. to 3 Ft.

Static Water Level 60' Ft. below Top of Casing

Pumping Water Level 80' Ft. after ____ Hrs. at ____ GPM

Pump Size 1 H.P. Capacity 20 GPM

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
			0	20	Sand
			20	40	" "
			40	60	Sand white Clay
			60	70	Clay Gravel
			70	75	Salt & pepper
			75	100	Lime Rock
			100	130	" "
			130	165	White water bearing Lime

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WELL LOCATION

Address ____

Park Ridge Sub 4

Subdivision Lot #

Latitude - Longitude

County Orange

28 22 28

Section Township Range

Located Near

ENTERED EOP

Cuttings ... nt to District? ( ) Yes (✓) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11040

Davis Blds, 280 E. Hwy 50, Suite 460, Winter Garden, FL 32787
Owner — Address — City — State — Zip

David C Hunt — 2102 — 6/20/89 — 251' — 170'
Contractors Signature — License No. — Completion Date — CASING DEPTH — Total Depth

Doug Spencer — 30767 — 0958903300
Driller's Signature — Registration No.

Type of work: Construct ____ Repair ____ Abandon ____
Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____
Industrial ____ Recharge ____ Other ____
Method: Rotary ____ Cable Tool ✓ Jet ____ Combination ____
Other ____
Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____
Screened From ____ Ft. to ____ Ft.
Bags of Grout 1 Interval Grouted 0 Ft. to 3 Ft.
Static Water Level 60' Ft. below Top of Casing
Pumping Water Level (est) 201 Ft. after ____ Hrs. at ____ GPM
Pump Size 1 H.P. Capacity 30 GPM

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
			0	20	Sand
			20	40	"
			40	60	Sand + White Clay
			60	70	Clay & Gravel
			70	75	Salt & pepper
			75	100	Lime Rock
			100	130	" "
			130	170	White Lime Rock
				150	
			AUG 7		
			RE:		

OWDO 8-7

WELL LOCATION

Address ____

PK Ridge Sub — 3
Subdivision — Lot #

Latitude - Longitude

County Orange

28 — 23 — 28
Section — Township — Range

Located Near

Cuttings sent to District? ( ) Yes (✓) No

WELL COMPLETION REPORT

(USE BALL POINT PEN – PRESS FIRMLY)

9717 PERMIT NO.

095870310

Mr. Alex Harris
OWNER

475 Friendship Dr. Orlando FL 32811
ADDRESS CITY STATE ZIP

Danny Meridith 2200
CONTRACTOR SIGNATURE LICENSE NO.

July 15, 1987 60' 4" 200'
COMPLETION DATE CASING DEPTH TOTAL DEPTH

TYPE OF WORK: CONSTRUCT X REPAIR ___ ABANDON ___

WELL USE: PRIVATE X PUBLIC ___ MONITOR ___

IRRIGATION ___ RECHARGE ___ OTHER ___

METHOD: ROTARY ___ CABLE TOOL X JET ___

SANDPOINT ___ COMBINATION ___ OTHER ___

CASING: BLK. STEEL X GALVANIZED ___ PVC ___ OTHER ___

BAGS OF GROUT: 5 OPEN HOLE 140 SCREENED ___

STATIC WATER LEVEL 50' FT. BELOW TOP OF CASING

PUMPING WATER LEVEL ___ FT. AFTER ___ HRS. AT ___ GPM

PUMP SIZE 1½ H.P. CAPACITY 22 GPM

LOCATION: SECTION 28 TOWNSHIP 22 RANGE 28

COUNTY X

GROUT Thickness and Depth	CASING Diameter and Depth	DEPTH (ft.) From	DEPTH (ft.) To	Examine cuttings at changes in formations. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
2½ x 3'	4" 35	0	10	Surface Form
		10	21	Dark Sand
		21	31	Clay-Dark
		31	40	Gray Clay
		40	50	Clay Shale
		50	60	Gray Hawthrone
		60	70	Gray Hawthrone
		70	90	Gray Shale
		90	100	Clay Shale
		100	120	Gray Hawthrone
		120	140	Shale & Lime
		140	150	Shale & Lime
		150	170	Break In Formation-Water
		170	190	Lime Rock (Gray)
		190	200	Lime Rock (Gray)

Danny Meridith 2200
Driller's Signature Registration No.

095860347

WELL COMPLETION REPORT

(USE BALL POINT PEN – PRESS FIRMLY)

PERMIT NO.

HAL SMITH
OWNER

2225 HEMBLE DR. GOTHA FL 32787
ADDRESS CITY STATE ZIP

Paul E Patterson 1127
CONTRACTOR SIGNATURE LICENSE NO.

9-2-84 89'11" 180'
COMPLETION DATE CASING DEPTH TOTAL DEPTH

TYPE OF WORK: CONSTRUCT ✓ REPAIR ___ ABANDON ___

WELL USE: PRIVATE ✓ PUBLIC ___ MONITOR ___

IRRIGATION ___ RECHARGE ___ OTHER ___

METHOD: ROTARY ___ CABLE TOOL ✓ JET ___

SANDPOINT ___ COMBINATION ___ OTHER ___

CASING: BLK. STEEL ✓ GALVANIZED ___ PVC ___ OTHER ___

BAGS OF GROUT: ___ OPEN HOLE ___ SCREENED ___

STATIC WATER LEVEL 45 FT. BELOW TOP OF CASING

PUMPING WATER LEVEL ___ FT. AFTER ___ HRS. AT ___ GPM

PUMP SIZE 2 H.P. CAPACITY ___ GPM

LOCATION: SECTION 28 TOWNSHIP 22S RANGE 28E

COUNTY ORANGE

GROUT Thickness and Depth	CASING Diameter and Depth		DEPTH (ft.) From	To	Examine cuttings at changes in formations. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"	180'	0	55	SAND BROWN
			55	65	CLAY & SAND WHITE
			65	75	SALT & PEPPER LIME WHT
			75	80	HAWTHORNE CRN
			80	85	GREY LIME GRY
			85	115	" " "
			115	135	" " "
			135	145	" " "
			145	160	BLACK & WHITE ROCK
			160	180	LIME TAN HARD

Richard L. Stedman
Driller's Signature

3042C
Registration No.

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY) 095860468 PERMIT NO. 9386

David Builders 1512 W Cobria dr. Orlando Fla. 32804

Owner | Address | City | State | Zip

[illegible] | 2102 | 11-24-86 | 105 | 150'

Contractors Signature | License No. | Completion Date | CASING DEPTH | Total Depth

Dolly Spencer | 30767

Drillers Signature | Registration No.

Type of Work: Construct ✓ Repair ____ Abandon ____

Well Use: Private ✓ Public ✓ Monitor ____ Irrigation ____

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ✓ Jet ____ Combination ____

Other ____

Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout 1 Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 50 Ft. below Top of Casing

Pumping Water Level 84 Ft. after ____ Hrs. at 20 GPM

Pump Size 1 H.P. Capacity 20 GPM

N

WELL LOCATION

Address South side of Seminole off Black Wood which is off 50

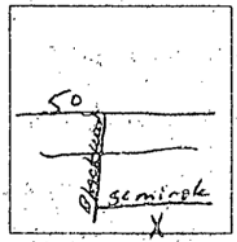
Subdivision | Lot #

Latitude - Longitude

County Orange

28 | 22S | 28E

Section | Township | Range



Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
Top 3'	4"		0	20	Sand
	"		20	60	"
	"		60	80	Sand + Green Clay
	"		80	100	Clay & Gravel
	"		100	105	Salt & pepper
	"	4"	105	110	Lime Rock
		"	110	140	" "
		"	140	150	Water bearing Lime

Cuttings sent to District? ( ) Yes (✓) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 12057

Owner	Address	City	State	Zip
DOUG LAYMAN	P.O. DRAWER 490	OCOEE	FL	34761

Contractor Signature	License No.	Completion Date	CASING DEPTH	Total Depth
B. J. Young	SD0001426	2/12/91	100'	180'

Driller Signature	Registration No.
[signature]	30733

Type of work: Construct ✓ Repair ____ Abandon ____

Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____

Industrial ____ Recharge ____ Other ____

Method: Rotary ✓ Cable Tool ____ Jet ____ Combination ____

Other ____

Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout ____ Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 80 Ft. below Top of Casing

Pumping Water Level 80 Ft. after 2 Hrs. at 30 GPM

Pump Size 1 H.P. Capacity 30 GPM

WELL LOCATION

Address 3537 SEMINOLE

OCOEE, FL 32761

Subdivision ____ Lot # ____

Latitude - Longitude ____

County ORANGE

Section	Township	Range
29	22S	28E

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities, indicate producing zones. Attach additional sheets if necessary.
	4"	100'	0	20	SAND
			20	40	SAND
			40	60	SAND
			60	80	CLAY AND SAND
			80	100	CLAY AND SAND
			100	120	GREY ROCK
			120	140	GRAVEL BEAL
			140	160	GREYROCK
			160	170	GREYROCK
			170	180	HOLE

RECEIVED FEB 25 1991 RECORDS Palatka

Cuttings sent to District? ( ) Yes ( ) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 12094

Michael Frores — Owner
10538 Claracona-Ocoee Rd. — Address
Apopka, FL — City, State, Zip

Willard Ames — Contractors Signature
2106 — License No.
3-28-91 — Completion Date
111' — CASING DEPTH
240' — Total Depth

Willard Ames — Driller Signature
D753 — Registration No.

Type of work: Construct ✓ Repair ___ Abandon ___

Well Use: Private ✓ Public ___ Monitor ___ Irrigation ___
Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool ✓ Jet ___ Combination ___
Other ___

Casing: Black Steel ✓ Galvanized ___ PVC ___ Other ___

Screened From ___ Ft. to ___ Ft.

Bags of Grout 1 Interval Grouted 0 Ft. to 111 Ft. DB

Static Water Level 103 Ft. below Top of Casing

Pumping Water Level 103 Ft. after 2 Hrs. at 30 GPM

Pump Size 1 H.P. Capacity 20 GPM

WELL LOCATION

Address 10538 Claracona Ocoee Rd. Apopka

Oak Level

Subdivision ___ Lot # ___

Latitude Longitude ___

County Orange

29 — Section
22 S — Township
28E — Range

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
111'	4"	111'	0	2	Clay
			2	12	White sand
			12	50	Brown water sand
			50	60	Black sand & silt
			60	92	Gray clay
			92	105	Gray clay & shell
			105	111	Gray lime (hard)
			111	118	Gray lime (hard)
			118	190	Clay with hard chert
			190	190	Hard dark brown lime
			190	240	White lime

DB

APR 24 1991
RECORDS
Palatka

Cuttings sent to District? ( ) Yes (✓) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 12095

Owner	Address	City	State	Zip
Michael Frores	10532 Claracona-Ocoee Rd.	Apopka	Fl.	

Contractors Signature	License No.	Completion Date	CASING DEPTH	Total Depth
Willard Ames	2106	3-12-91	112	240

Driller Signature	Registration No.
Willard	0753

Type of work: Construct ✓ Repair ____ Abandon ____

Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ✓ Jet ____ Combination ____

Other ____

Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____ DB

Screened From ____ Ft. to ____ Ft.

Bags of Grout 1 Interval Grouted 0 Ft. to 112 Ft. DB

Static Water Level 103 Ft. below Top of Casing

Pumping Water Level 103 Ft. after 2 Hrs. at 30 GPM

Pump Size 1 H.P. Capacity 20 GPM

WELL LOCATION

Address 10532 Claracona Ocoee Rd. Apopka

Oak Level

Subdivision Lot #

Latitude - Longitude

County Orange

Section	Township	Range
29	22 S	28E

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
0 112'	4"	112	0	10	White sand & fill
			10	50	Brown water sand
			50	70	Black sand & silt
			70	92	Gray clay
			92	107	Gray clay & shell
			107	112	Gray lime (hard)
			112	134	Gray lime (hard)
			134	173	Clay with chert
			173	188	Hard dark brown lime
			[illegible]	[illegible]	Gray clay & chert
			[illegible]	[illegible]	White lime

DB

APR 24 1991
RECORDS
Palatka

Cuttings sent to District? ( ) Yes (✓) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. _____

Owner	Address	City	State	Zip
[illegible]	Lake Forest Apts	Orlando	FL	32804

Contractors Signature	License No.	Completion Date	CASING DEPTH	Total Depth
	1952	4-13-89	86'	160'

Driller's Signature: Ernest Miller

Registration No.

Type of work: Construct X Repair ____ Abandon ____

Well Use: Private ____ Public ____ Monitor ____ Irrigation X

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ____ Jet ____ Combination X

Other ____

Casing: Black Steel X Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout ____ Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 55 Ft. below Top of Casing

Pumping Water Level 56 Ft. after 1 Hrs. at 100 GPM

Pump Size 5 H.P. Capacity 100 GPM

N

WELL LOCATION

Address 1412 W. Colonial Dr.
Orlando, FL 32804

Subdivision ____ Lot # ____

Latitude - Longitude ____

County Orange

Section	Township	Range
29	225	2285

Located Near: 2nd to a drainage well [illegible] west.

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"	0	0	20	Sand
			20	40	Sand & clay
			40	60	Clay & gravel
			60	80	Clay & gravel
	4"	86"	80	86	Soft rock
			86	96	Hard rock
			96	116	Medium rock
			116	136	Medium rock
			136	156	Soft rock
			156	160	Cavity, end of well.

Cuttings sent to District? ( ) Yes (✓) No

095850041

WELL COMPLETION REPORT 8597
(USE BALL POINT PEN – PRESS FIRMLY) PERMIT NO.

[redacted] Bldg Corp.
OWNER

Seminole Ave Winter Garden FLA
ADDRESS CITY STATE ZIP

H. Richard Joyce 1364
CONTRACTOR SIGNATURE LICENSE NO.

7-10-85 105' 190'
COMPLETION DATE CASING DEPTH TOTAL DEPTH

TYPE OF WORK: CONSTRUCT ✓ REPAIR ___ ABANDON ___

WELL USE: PRIVATE ✓ PUBLIC ___ MONITOR ___
IRRIGATION ___ RECHARGE ___ OTHER ___

METHOD: ROTARY ___ CABLE TOOL ___ JET ___
SANDPOINT ___ COMBINATION ✓ OTHER ___

CASING: BLK. STEEL ✓ GALVANIZED ___ PVC ___ OTHER ___

BAGS OF GROUT: 7½ OPEN HOLE ___ SCREENED ✓

STATIC WATER LEVEL 74 FT. BELOW TOP OF CASING

PUMPING WATER LEVEL ___ FT. AFTER ___ HRS. AT ___ GPM

PUMP SIZE 1 H.P. CAPACITY 25 GPM

LOCATION: SECTION 29 TOWNSHIP 22S RANGE 28E
COUNTY Orange

GROUT Thickness and Depth	CASING Diameter	CASING and Depth	DEPTH (ft.) From	DEPTH (ft.) To	Examine cuttings at changes in formations. Give color, grain-size and type of material. Note any cavities, indicate producing zones. Attach additional sheets if necessary.
7"x5'	4"	105'	0	20	Sand
			20	40	"
			40	60	"
			60	80	Clay Sand Shell
			80	105	Clay Shell
			105	125	Rock Limerock
			125	145	" "
			145	165	" "
			165	190	" "

Mike Bond
Driller's Signature

30522
Registration No.

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY) 880-8282 PERMIT NO. _____

Owner	Address	City	State	Zip
Clint Diane	10496 Gotha + windermere Rd.	Winder	Fla	069870511

Contractors Signature	License No.	Completion Date	CASING DEPTH	Total Depth
Charles Smelkowski	2379	10-23-87	135'	135'

Drillers Signature	Registration No.
[illegible]	D-1392

Type of work: Construct ✓ Repair ____ Abandon ____

Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ✓ Jet ____ Combination ____

Other ____

Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout ____ Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 75' Ft. below Top of Casing

Pumping Water Level 75' Ft. after 1 Hrs. at 20' GPM

Pump Size 1 H.P. Capacity 20 GPM

WELL LOCATION

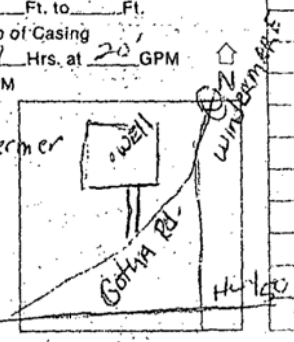
Address 10496 Gotha windermer Rd. windermere Fla.

Subdivision _____ Lot # _____

Latitude - Longitude _____

County ORANGE

Section	Township	Range
32	22	28



Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain size and type of material. Note any cavities indicate producing zones. Attach additional sheets if necessary.
2"x3'			0	50	Sand
			50	80	Green Clay
			80	135	Gravle Bed
			135	195	Lime + water

Cuttings sent to District? ( ) Yes (✓) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 10519

Owner	Address	City	State	Zip
Ken Golby	10532 Moore St.	Ocoee	FL	32761

Contractors Signature	License No.	Completion Date	CASING DEPTH	Total Depth
Willard Ames	2106	8-20-88	105'	213'

Drillers Signature	Registration No.
Willard Ames	D753

0458 80435

Type of work: Construct ✓ Repair ____ Abandon ____

Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ✓ Jet ____ Combination ____

Other ____

Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout 3/4 Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 40 Ft. below Top of Casing

Pumping Water Level 55 Ft. after 2 Hrs. at 45 GPM

Pump Size 1 1/2 H.P. Capacity 45 GPM

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft or smaller intervals and at changes. Give color, grain size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
2" dy 3'	4"	105'	0	12	Sand
			12	35	Sandy white clay
			35	80	Gray clay with chert
			80	92	Quartzite + chert (cemented together)
			92	125	Gray lime
			125	150	Clay (hard) with chert in it
			150	213	Hard to soft lime rock

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WELL LOCATION

Address Moore St.
Ocoee, FL

Subdivision ____ Lot # ____

Latitude - Longitude ____

County Orange

Section	Township	Range
32	22S	28E

Located Near

Cuttings sent to District? ( ) Yes (✓) No

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RECORDS
KALATKA

DIETERY DUPLICATING FORMS, INC.

WELL COMPLETION REPORT (USE BALL POINT PEN, PRESS FIRMLY)

PERMIT NO. 095880692

DON WOOD INC., ORLANDO, FLA. 32811

Contractors Signature: J.R. Jeffcoat | License No: 2987 | Completion Date: 12/12/88 | CASING DEPTH | Total Depth

Drillers Signature: Dale | Registration No: 31213

Type of work: Construct X Repair ____ Abandon ____

Well Use: Private ____ Public ____ Monitor X Irrigation ____

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ____ Jet ____ Combination ____

Other AUGER

Casing: Black Steel ____ Galvanized ____ PVC ____ Other ____

Screened From 20 Ft. to 15-12 Ft.

Bags of Grout 1.5 Interval Grouted: / Ft. to 3 Ft.

Static Water Level ____ Ft. below Top of Casing

Pumping Water Level ____ Ft. after ____ Hrs. at ____ GPM

Pump Size ____ H.P. Capacity ____ GPM

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain size and type of material. Note any caving. Indicate producing zones. Attach additional sheets if necessary
1'3"	2"		1'	5'	DRY SANDS (SOME "WET" CLAY)

WELL LOCATION

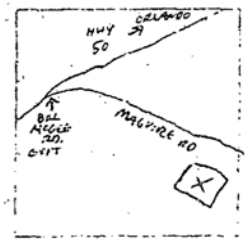
Address: Central Harvesting Co. 945 SW. Maguire St. Oscee, Fla.

Subdivision ____ Lot # ____

Latitude - Longitude ____

County: ORANGE

32 (Section) 22S (Township) 29E (Range)



Located Near

Cuttings sent to District? ( ) Yes ( ) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY) 298-5433 PERMIT NO. CDC038665

Hudson Const. Farmwood Cir. Windermere Fla

Owner | Address | City | State | Zip

Charlie Smallwood 2379 11-7-87 65 260'

Contractors Signature | License No. | Completion Date | CASING DEPTH | Total Depth

Steven Perry D-1392 095870560

Driller Signature | Registration No.

Type of work: Construct ✓ Repair ___ Abandon ___

Well Use: Private ✓ Public ___ Monitor ___ Irrigation ___

Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool ✓ Jet ___ Combination ___

Other ___

Casing: Black Steel ✓ Galvanized ___ PVC ___ Other ___

Screened From ___ Ft. to ___ Ft.

Bags of Grout — Interval Grouted — Ft. to ___ Ft.

Static Water Level 50 Ft. below Top of Casing

Pumping Water Level 50 Ft. after 1 Hrs. at 20 GPM

Pump Size 1 H.P. Capacity 20 GPM

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
2"x3'			0	20	Sand
			20	40	Sandy Clay (Red)
			40	180	Green Clay + Rock
			180	260	White Lime + Water

WELL LOCATION

Address Farmwood Cir.

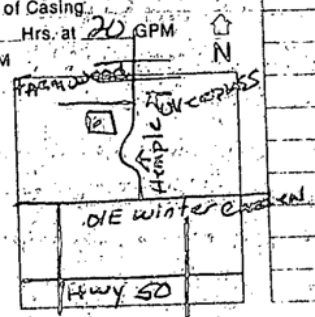
Subdivision ___ Lot # ___

Latitude - Longitude ___

County Orange

33 22S. 28E.

Section | Township | Range



Located Near

Cuttings sent to District? ( ) Yes (✓) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11159

Roger Rydl — Owner — P.O. Box 1557 — Address — Windermere, — City — Fl — State — 32786 — Zip

Willard Ames — Contractors Signature — C2106 — License No. — 7-28-89 — Completion Date — 69'5" — CASING DEPTH — 174' — Total Depth — 09589D3396

Willard Ames — Drillers Signature — D753 — Registration No.

Type of work: Construct ✓ Repair ____ Abandon ____

Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____
Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ____ Jet ✓ Combination ____
Other ____

Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout 3/4 Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 47 Ft. below Top of Casing

Pumping Water Level 50 Ft. after 2 Hrs. at 40 GPM

Pump Size 1 H.P. Capacity 35 GPM

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Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
2"by3'	4"	69.5'	0	2	Brown sand
			2	21	Gray sand
			21	29	Gray Sandy clay
			29	47	White clay
			47	53	Green clay
			53	60	Gray clay
			60	74	Light tan lime
			74	125	white + green clay Chard
			125	174	White lime
					ENTERED EDP

WELL LOCATION

Address 2217 Temple Ave. Zotha, Fl.

Subdivision ____ Lot # ____

Latitude - Longitude ____

County Orange

33 Section — 22 Township — 28 Range

Located Near

Cuttings sent to District? ( ) Yes (✓) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY) 0958 10525 PERMIT NO. 92 12

Contractor: Eddie Martinez | Address: 8736 Rancho court | City: Orl | State: Fla | Zip:

Contractors Signature: Robert Berry | License No.: 704/2 | Completion Date: 12/13/87 | CASING DEPTH: 84' | Total Depth: 170

Drillers Signature: Robert Berry | Registration No.: 30-118

Type of work: Construct X Repair ____ Abandon ____

Well Use: Private X Public ____ Monitor ____ Irrigation ____

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ____ Jet X Combination ____

Other ____

Casing: Black Steel ____ Galvanized X PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout ____ Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 42 Ft. below Top of Casing

Pumping Water Level 43 Ft. after 1 Hrs. at 20 GPM

Pump Size 1 H.P. Capacity 20 GPM

WELL LOCATION

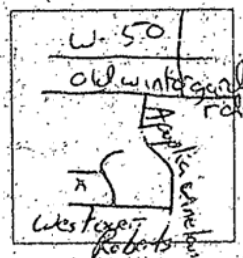
Address: Sir Lawrence ct.

Roberts Landing 39
Subdivision Lot #

Latitude - Longitude

County: Orange

33 22 28
Section Township Range



Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft or smaller intervals and at changes. Give color, grain size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"	84	0	10	White Sand
			10	40	Orange Clay, Sand
			40	80	Gray Clay, Sand
			80	90	Gray limestone
			90	110	Gray lime stone
			110	130	Gray lime ston
			130	150	Gray lime stone
			150	165	Gray lime ston
			165	170	Comp ft

JAN 11 1988

ENTERED IN RECORDS

Cuttings sent to District? ( ) Yes (X) No

095870129

WELL COMPLETION REPORT

(USE BALL POINT PEN – PRESS FIRMLY)

PERMIT NO. _____

Tim McCarthy – Red Bird Rd
OWNER

2227 Lake Nally Woods Rd — Winter Garden — Fl. — 32787
ADDRESS — CITY — STATE — ZIP

[signature] — 1127
CONTRACTOR SIGNATURE — LICENSE NO.

3-18-87 — 80'7" — 310"
COMPLETION DATE — CASING DEPTH — TOTAL DEPTH

TYPE OF WORK: CONSTRUCT ✓ REPAIR ___ ABANDON ___

WELL USE: PRIVATE ✓ PUBLIC ___ MONITOR ___

IRRIGATION ___ RECHARGE ___ OTHER ___

METHOD: ROTARY ___ CABLE TOOL ✓ JET ___

SANDPOINT ___ COMBINATION ___ OTHER ___

CASING: BLK. STEEL ✓ GALVANIZED ___ PVC ___ OTHER ___

BAGS OF GROUT: ___ OPEN HOLE ___ SCREENED ___

STATIC WATER LEVEL 72 FT. BELOW TOP OF CASING

PUMPING WATER LEVEL ___ FT. AFTER ___ HRS. AT ___ GPM

PUMP SIZE 2 H.P. CAPACITY ___ GPM

LOCATION: SECTION ~~[illegible]~~ TOWNSHIP ~~23S~~ RANGE ~~26E~~

COUNTY ORANGE

33 22S 28E

GROUT Thickness and Depth	CASING Diameter and Depth		DEPTH (ft.) From	To	Examine cuttings at changes in formations. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"	80'7"	0	40	SAND
			40	80	SAND + CLAY
			80	85	SALT - PEP
			85	90	GRAY ROCK
			90	95	HAWTHORNE
			95	100	SALT - PEP
			100	105	SALT - PEP
			105	115	GRAY ROCK
			115	125	SALT - PEP GRAY
			125	140	BROWN LIME
			140	155	BLUE - GRAY
			155	185	WHITE LIME
			185	240	WHITE LIME
			240	270	LIME - CLAY BROWN
			270	290	LIME - CLAY WHITE
			290	295	LIME BROWN
			295	303	LIME WHITE
			303	310	HOLE

[signature] — 30422
Driller's Signature — Registration No.

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY) 09087 0124 PERMIT NO. 9487

Jim Lee Sales — Owner | Box 1071 — Address | Apopka — City | Flo — State | 32704 — Zip

[signature] — Contractor's Signature | 2102 — License No. | 3-30-87 — Completion Date | 84 — CASING DEPTH | 165 — Total Depth

[signature] — Drillers Signature | 30765 — Registration No.

Type of work: Construct ✓ Repair ___ Abandon ___

Well Use: Private ✓ Public ___ Monitor ___ Irrigation ✓

Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool ✓ Jet ___ Combination ___

Other ___

Casing: Black Steel ✓ Galvanized ___ PVC ___ Other ___

Screened From ___ Ft. to ___ Ft.

Bags of Grout 1 Interval Grouted 0 Ft. to 3 Ft.

Static Water Level 55 Ft. below Top of Casing

Pumping Water Level 84 Ft. after ___ Hrs. at ___ GPM

Pump Size 5 H.P. Capacity 50 GPM

WELL LOCATION

Address ___

Subdivision ___ Lot # ___

Latitude - Longitude ___

County Orange

33 — Section | 225 — Township | 28E — Range

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"		0	20	Sand
	4"		20	40	Sand Green mud
	4"		40	60	Green mud Gravel
	4"		60	80	Green mud &
					pepper stone
	4"		80	100	Lime Rock
			100	120	Lime Rock cav
			120	140	" "
			140	165	Lime Rock cav

ENTERED EOP

Cuttings sent to District? ( ) Yes (✓) No

09585 0039

WELL COMPLETION REPORT

(USE BALL POINT PEN – PRESS FIRMLY)

8519 PERMIT NO.

James Justice
OWNER

1217 Dingens Ave. Gotha FL
ADDRESS CITY STATE ZIP

Willard Turner 2106
CONTRACTOR SIGNATURE LICENSE NO.

6-5-85 84' 204'
COMPLETION DATE CASING DEPTH TOTAL DEPTH

TYPE OF WORK: CONSTRUCT ✓ REPAIR ___ ABANDON ___

WELL USE: PRIVATE ✓ PUBLIC ___ MONITOR ___

IRRIGATION ___ RECHARGE ___ OTHER ___

METHOD: ROTARY ___ CABLE TOOL ✓ JET ___

SANDPOINT ___ COMBINATION ___ OTHER ___

CASING: BLK. STEEL ✓ GALVANIZED ___ PVC ___ OTHER ___

BAGS OF GROUT: ___ OPEN HOLE ✓ SCREENED ___

STATIC WATER LEVEL 60 FT. BELOW TOP OF CASING

PUMPING WATER LEVEL 65 FT. AFTER 6 HRS. AT 35 GPM

PUMP SIZE 1 H.P. CAPACITY 25 GPM

LOCATION: SECTION 33 TOWNSHIP 22 RANGE 28

COUNTY Orange

GROUT Thickness and Depth	CASING Diameter and Depth	DEPTH (ft.) From	To	Examine cuttings at changes in formations. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4" 84'	0	35	Sand
		35	60	White clay
		60	80	Green clay + Shell
		80	120	Gray lime + boulder
		120	145	Hard gray lime
		145	204	Lime Rock (white)

Willard Turner 2106
Driller's Signature Registration No.

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. _____

Owner	Address	City	State	Zip
Malka Tshak	West Rd	Ocoee	Fla.	

Contractor Signature	License No.	Completion Date	CASING DEPTH	Total Depth
Charly Smithwick	2379	9/12/88	110'	230'

Driller Signature	Registration No.
[illegible]	30858

09588 0428

Type of work: Construct ✓ Repair ____ Abandon ____

Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ✓ Jet ____ Combination ____

Other ____

Casing: Black Steel 4" Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout 1 Interval Grouted 2 Ft. to 3 Ft.

Static Water Level 80 Ft. below Top of Casing

Pumping Water Level 105 Ft. after ____ Hrs. at 20 GPM

Pump Size 1 H.P. Capacity ~~20~~ GPM

COMPLETED

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Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
2x3	4"	110'	0	50	Sand
			50	75	Sand Clay
			75	100	Clay Dark Green
			100	125	Cl Dark Green
			125	150	Clay Rock
			150	175	Rock water
			175	230	" "

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WELL LOCATION

Address West Rd

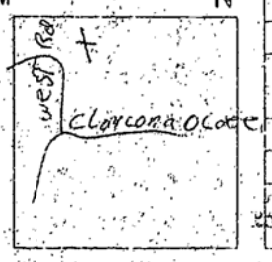
Ocoee Fl

Subdivision ____ Lot # ____

Latitude - Longitude ____

County ____

Section	Township	Range
33	22S	28E



Located Near

Cuttings sent to District? ( ) Yes ( ) No

PERMIT NO. 10564

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

James + Shirley Sims 1431 Hempel Ave Gotha, Fl 32786

Owner — Address — City — State — Zip

[signature] SD0001127 10/17 73' 175'

Contractors Signature — License No. — Completion Date — CASING DEPTH — Total Depth

[signature] 30530 09588 0545

Drillers Signature — Registration No.

Type of work: Construct X Repair ___ Abandon ___

Well Use: Private X Public ___ Monitor ___ Irrigation ___

Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool X Jet ___ Combination ___

Other ___

Casing: Black Steel X Galvanized ___ PVC ___ Other ___

Screened From ___ Ft. to ___ Ft.

Bags of Grout ___ Interval Grouted ___ Ft. to ___ Ft.

Static Water Level 38 Ft. below Top of Casing

Pumping Water Level ___ Ft. after ___ Hrs. at ___ GPM

Pump Size 1 H.P. Capacity ___ GPM

N

WELL LOCATION

Address 1431 Hempel Ave

Gotha

Subdivision — Lot #

Latitude - Longitude

County ORange

33 — 22S — 28E

Section — Township — Range

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"	73'	0	20	Sand
			20	40	Sand
			40	60	Sand
			60	70	Sand & clay
			70	90	Salt pepper lime
			90	115	Gray lime
			115	138	White lime
			138	145	White lime
			145	165	White lime
			165	175	Brown lime

RECEIVED OCT 19 1988 COMPLETED

RECORDS PALATKA

FILMED

Cuttings sent to District? ( ) Yes (X) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

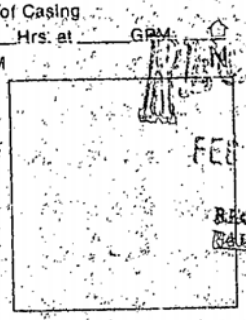
PERMIT NO. 10043

Orange County Public Schools, 6200 Chancellor Drive, Orlando, Florida 32809
Owner — Address — City — State — Zip

[signature] 2200 — January 20, 1988 — 125' — 216'
Contractors Signature — License No. — Completion Date — CASING DEPTH — Total Depth

[signature] 2200 — 09588 0022
Drillers Signature — Registration No.

Type of work: Construct X Repair ____ Abandon ____
Well Use: Private ____ Public ____ Monitor ____ Irrigation X
Industrial ____ Recharge ____ Other ____
Method: Rotary ____ Cable Tool X Jet ____ Combination ____
Other ____
Casing: Black Steel X Galvanized ____ PVC ____ Other ____
Screened From ____ Ft. to ____ Ft.
Bags of Grout 5 Interval Grouted 120 Ft. to 128 Ft.
Static Water Level 42 Ft. below Top of Casing
Pumping Water Level 55 Ft. after ____ Hrs. at ____ GPM
Pump Size 5 H.P. Capacity 60 GPM



Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"	125'	0	65	Sand
			65	95	Sand, Gray clay
			95	100	Gray clay, gray rock
			100	120	gray clay, gray rock
			120	137	white to gray lime rock
			137	155	gray lime rock, shell
			155	180	gray lime rock
			180	216	light brown lime rock

WELL LOCATION

Address ____

Subdivision ____ Lot # ____

Latitude - Longitude ____

County Orange

33 Section — 22 Township — 28 Range

Located Near

FEB 29 1988
RECORDS
SALADOCA

COMPLETED

FILMED

Cuttings sent to District? ( ) Yes ( ) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11159

Roger Ryll — Owner — P.O. Box 1557 — Address — Windermere, Fl — City — State — 32786 — Zip

Willard Ames — Contractors Signature — C2106 — License No. — 7-28-89 — Completion Date — 69'5" — CASING DEPTH — 174' — Total Depth

Willard Ames — Drillers Signature — D753 — Registration No.

095890396

Type of work: Construct ✓ Repair ____ Abandon ____

Well Use: Private ✓ Public ____ Monitor ____ Irrigation ____

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ✓ Jet ____ Combination ____

Other ____

Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout 74 Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 47 Ft. below Top of Casing

Pumping Water Level 50 Ft. after 2 Hrs. at 40 GPM

Pump Size 1 H.P. Capacity 35 GPM

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RECORDS
PALATKA

WELL LOCATION

Address 2217 Temple Ave. Gotha, Fl.

Subdivision ____ Lot # ____

Latitude - Longitude ____

County Orange

Section 33 Township 22 Range 28

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
2"bag	4"	1.95'	0	2	Brown sand
			2	21	Gray sand
			21	29	Gray sandy clay
			29	47	White clay
			47	53	Green clay
			53	60	Gray clay
			60	74	Light tan lime
			74	125	white + green clay (hard)
			125	174	White lime
					ENTERED COP

Cuttings sent to District? ( ) Yes (✓) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY) 298-5433 PERMIT NO. CDC038665

Hudson Const. Farmwood Cir. Windermere FLA

Owner | Address | City | State | Zip

Charlie Smallwood 2379 11-7-87 65 260'

Contractors Signature | License No. | Completion Date | CASING DEPTH | Total Depth

Steven Perry D-1392 095870560

Drillers Signature | Registration No.

Type of work: Construct ✓ Repair ___ Abandon ___

Well Use: Private ✓ Public ___ Monitor ___ Irrigation ___

Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool ✓ Jet ___ Combination ___

Other ___

Casing: Black Steel ✓ Galvanized ___ PVC ___ Other ___

Screened From ___ Ft. to ___ Ft.

Bags of Grout — Interval Grouted — Ft. to ___ Ft.

Static Water Level 50 Ft. below Top of Casing.

Pumping Water Level 50 Ft. after 1 Hrs. at 20 GPM

Pump Size 1 H.P. Capacity 20 GPM

WELL LOCATION

Address Farmwood Cr.

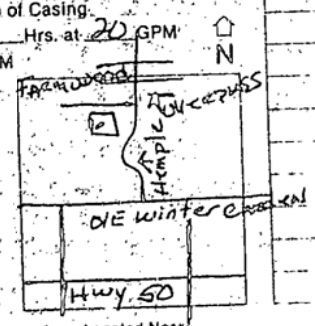
Subdivision Lot #

Latitude - Longitude

County Orange

33 22S. 28E.

Section Township Range



Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
2"x3'			0	20	Sand
			20	40	Sandy Clay (Red)
			40	180	Green Clay + Rock
			180	260	White Lime + Water

Cuttings sent to District? ( ) Yes (✓) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11892

Owner: Woodlawn Memorial Gardens | Address: 400 Woodlawn Cemetery Rd. | City: Orlando | State: Fl. | Zip:

Contractors Signature: B Robert Jeff | License No.: 1987 | Completion Date: 10-28-90 | CASING DEPTH: 45' | Total Depth: 45'

095-90-0136

Drillers Signature: J. C. Hare, JR. | Registration No.: 31213

Type of work: Construct X Repair ____ Abandon ____

Well Use: Private ____ Public ____ Monitor ____ Irrigation ____

Industrial ____ Recharge ____ Other ____

Method: Rotary X Cable Tool ____ Jet ____ Combination X

Other Hollow Stem Auger

Casing: Black Steel ____ Galvanized ____ PVC X Other ____

Screened From 30' Ft. to 45' Ft.

Bags of Grout 7 Interval Grouted 0 Ft. to 28' Ft.

Static Water Level 36' Ft. below Top of Casing

Pumping Water Level ____ Ft. after ____ Hrs. at ____ GPM

Pump Size ____ H.P. Capacity ____ GPM

N

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
0	2"	45	0	6'	dry sand
|			6'	20'	clay
|			20'	36'	powder dry sand
|			36'	45'	wet sand
28'					

WELL LOCATION

Address 400 Woodlawn Cemetary Rd., Orlando

Subdivision ____ Lot # ____

Latitude - Longitude ____

County ORANGE

NW NW 34 | 22S | 28E

Section | Township | Range

Located Near

Cuttings sent to District? ( ) Yes (X) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11235

Custom Quality Home (Owner) 48 N. Kirkman Rd. Suite 2 (Address) Orlando (City) Fl. (State) 32811 (Zip)

Willard Ames (Contractors Signature) 2106 (License No.) 9-29-89 (Completion Date) 135' (CASING DEPTH) 265' (Total Depth) 095890480

Willard Ames (Drillers Signature) D753 (Registration No.)

Type of work: Construct ✓, Repair ____ Abandon ____

Well Use: Private ____ Public ____ Monitor ____ Irrigation ✓

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ____ Jet ____ Combination ____

Other ____

Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout 74 Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 62 Ft. below Top of Casing

Pumping Water Level 72 Ft. after 2 Hrs. at 32 GPM

Pump Size 1 H.P. Capacity 30 GPM

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OCT 09 1989
WATER MANAGEMENT DISTRICTS
PALATKA

ENTERED EDP

WELL LOCATION

Address Stenson Rd. Off Palm Cove Estates Entrance well

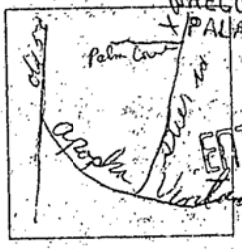
Subdivision ____ Lot # ____

Latitude - Longitude ____

County Orange

Section 34 Township 22 Range 28

Located Near



Grout Thickness & Depth	Casing Diam	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
2"by3	4"	265	0	10	Fine Rock sand
			10	35	Brown sandy clay
			35	74	Soft sandy gray clay
			74	95	Green sandy clay or shell
			95	114	Green clay
			114	130	Green sandy clay streaks lime
			130	145	Green clay
			145	154	Green sandy clay
			154	159	Dark gray clay
			159	170	Gray clay streaks lime
			170	197	Green sandy clay
			197	201	Hard tan lime
			201	225	Light tan soft lime

Cuttings sent to District? ( ) Yes (✓) No

225-265 porous lime

WELL COMPLETION REPORT (USE BALL POINT PEN- PRESS FIRMLY)

PERMIT NO. 12316

Complete Interiors — Owner — 425 Douglas Ave — Address — Altamonte Spgs — City — FL — State — 32714 — Zip

J. Richard Joyce — Certified Contractor Signature — 13644 — License No. — 09-16-91 — Completion Date — 105 — CASING DEPTH — 250 — Total Depth

Michael E. Burk — Driller Signature — 30522 — Registration No.

Type of work: Construct ✓ Repair ____ Abandon ____

Well Use: Private ____ Public ____ Monitor ____ Irrigation ✓

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool ____ Jet ____ Combination ✓

Other ____

Casing: Black Steel ✓ Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout 28 Interval Grouted 0 Ft. to 105 Ft.

Static Water Level 78 Ft. below Top of Casing

Pumping Water Level ____ Ft. after ____ Hrs. at ____ GPM

Pump Size 5 H.P. Capacity 10 GPM

WELL LOCATION

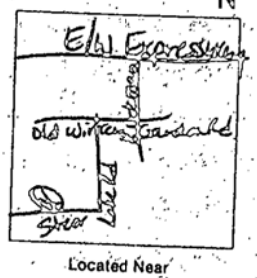
Address: Steer Lake Rd Utility Easement

Subdivision ____ Lot # ____

Latitude - Longitude ____

County: Orange

34 — Section — 22S — Township — 28E — Range



Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
0	4	0	0	20	Sand
			20	40	Sand
			40	60	Sand
			60	80	Sand
			80	100	Sand & clay
			100	105	clay & rock
105	4	105	105	120	rock & limerock
			120	140	Limerock
			140	160	Limerock
			160	180	Limerock
			180	200	Limerock & Softrock
			200	220	Limerock
			220	240	Limerock
			240	280	Limerock

Cuttings sent to District? ( ) Yes (X) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 12180

Orange County Public Schools 3150 W. Oakridge Road Orlando, Florida 32709

Owner | Address | City | State | Zip

Contractor Signature | License No. 2200 | Completion Date 6-7-91 | CASING DEPTH 125' | Total Depth 210'

Driller Signature | Registration No. 2200

Type of work: Construct XXX Repair ____ Abandon ____

Well Use: Private ____ Public ____ Monitor ____ Irrigation XXX

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool XX Jet ____ Combination ____

Other ____

Casing: Black Steel ____ Galvanized ____ PVC ____ Other IRON

Screened From ____ Ft. to ____ Ft.

Bags of Grout ____ Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 82 Ft. below Top of Casing

Pumping Water Level ____ Ft. after ____ Hrs. at ____ GPM

Pump Size 5 H.P. Capacity 60 GPM

N

WELL LOCATION

Address Metro West Elementary

Subdivision ____ Lot #

Latitude - Longitude

County Orange

34 - 22S - 28E

Section Township Range

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
					SEE ATTACHED.

RECEIVED
JUN 17 1991
RECORDS
Palatka

Cuttings sent to District? ( ) Yes ( ) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11646

Rick Neal (Owner) 1101 N. Lake Destiny Drive (Address) Suite 135 (City) Maitland (State) Florida (Zip) 32751

Contractors Signature: [signature] License No. 2200 Completion Date 6-06-90 CASING DEPTH 88' Total Depth 265'

095-90-0169

Drillers Signature: [signature] Registration No.

Type of work: Construct XX Repair ____ Abandon ____

Well Use: Private XX Public ____ Monitor ____ Irrigation XX

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool XX Jet ____ Combination ____

Other ____

Casing: Black Steel XX Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout ____ Interval Grouted ____ Ft. to ____ Ft.

Static Water Level ____ Ft. below Top of Casing

Pumping Water Level ____ Ft. after ____ Hrs. at ____ GPM

Pump Size 5 H.P. Capacity ____ GPM

N

WELL LOCATION

Address Tract C of Marble-head

Subdivision Lot #

Latitude - Longitude

County Orange

34 Section 22S Township 28E Range

Located Near

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"				See attatched

RECEIVED JUN 12 1990 BUREAUS Florida

Cuttings sent to District? ( ) Yes ( ) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11264

Owner	Address	City	State	Zip
Almond Tree Estates	1101 North Lake Destiny Drive	Suite 135	Maitland	FL 32751

Contractors Signature	License No.	Completion Date	CASING DEPTH	Total Depth
[signature]	2200	10-13-89	137'	260'

Drillers Signature [signature] Registration No.

RECEIVED OCT 16 1989 RECORDS PALATKA

09589 0511

Type of work: Construct XX Repair ____ Abandon ____

Well Use: Private ____ Public ____ Monitor ____ Irrigation XX

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool XX Jet ____ Combination ____

Other ____

Casing: Black Steel XX Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout ____ Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 45' Ft. below Top of Casing

Pumping Water Level 45' Ft. after ½ Hrs. at 70 GPM

Pump Size 5 H.P. Capacity 70 GPM

N

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft or smaller intervals and at changes. Give color, grain size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"	137			See attatched

ENTERED EOP

WELL LOCATION

Address across from Edgewood Boy's Ranch

Subdivision ____ Lot # ____

Latitude - Longitude ____

County Orange

Section	Township	Range
34	22S	28E

Located Near

Cuttings sent to District? ( ) Yes ( ) No

COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11240

Owner	Address	City	State	Zip
Almond Tree Estates	1101 North Lake Destiny Drive	Suite 135	Maitland FL	32751

Contractors Signature	License No.	Completion Date	CASING DEPTH	Total Depth
[signature]	2200	10-13-89	137'	260'

Drillers Signature [signature] Registration No.

095890510

Type of work: Construct XX Repair ____ Abandon ____

Well Use: Private ____ Public ____ Monitor ____ Irrigation XX

Industrial ____ Recharge ____ Other ____

Method: Rotary ____ Cable Tool XX Jet ____ Combination ____

Other ____

Casing: Black Steel XX Galvanized ____ PVC ____ Other ____

Screened From ____ Ft. to ____ Ft.

Bags of Grout ____ Interval Grouted ____ Ft. to ____ Ft.

Static Water Level 45' Ft. below Top of Casing

Pumping Water Level 45' Ft. after ½ Hrs. at 70 GPM

Pump Size 5 H.P. Capacity 70 GPM

N

WELL LOCATION

Address across from Edgewood Boy's Ranch

Subdivision Lot #

Latitude - Longitude

County Orange

Section	Township	Range
34	22S	28E

Located Near

Total Thickness & Depth	Diameter	Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
1989	4"	130			See Attatched

RECEIVED

ENTERED EOP

Cuttings sent to District? ( ) Yes ( ) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 11382

Perry Brigmond (Owner) 6625 Cristian Ct. (Address) Orange (City) Fla. (State) 32810 (Zip)

Harold R. Conrad (Contractors Signature) 1280 (License No.) 12-22-89 (Completion Date) 104 (CASING DEPTH) 125' (Total Depth)

Harold R. Conrad (Drillers Signature) 1230 (Registration No.)

095890579

Type of work: Construct ✓ Repair ___ Abandon ___

Well Use: Private ✓ Public ___ Monitor ___ Irrigation ___

Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool ✓ Jet ___ Combination ___

Other ___

Casing: Black Steel ✓ Galvanized ___ PVC ___ Other ___

Screened From ___ Ft. to ___ Ft.

Bags of Grout ___ Interval Grouted ___ Ft. to ___ Ft.

Static Water Level 40' Ft. below Top of Casing

Pumping Water Level 44 Ft. after 2 Hrs. at 30 GPM

Pump Size 1½ H.P. Capacity 30 GPM

JAN 02 1990

RECORDS PALATKA

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"		0	15	sand
			15	35	Red clay & sand
			35	50	Red clay
			50	70	Blue mud & gravel
			70	90	Blue mud & gravel
			90	96	white mud & gravel
			96	102	white mud.
			102	104	white rock
		104	104	120	white rock some water
			120	125	cavity with water

ENTERED EOP

WELL LOCATION

Address Lots 10-11 Block C

Lake Hiawassee Terrace

Plat Book O page 104

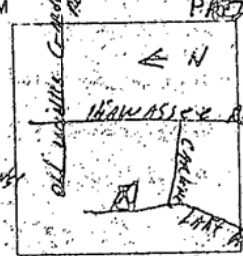
Subdivision Lot #

Public Records of Orange Co

Latitude - Longitude

County Orange

35 (Section) 22 (Township) 28 (Range)



Located Near

Cuttings sent to District? ( ) Yes (✓) No

WELL COMPLETION REPORT (USE BALL POINT PEN - PRESS FIRMLY)

PERMIT NO. 10496

Owner	Address	City	State	Zip
Magnolia Service Corp	P.O. Box 2349	Orlando	Fl	32802

Contractors Signature	License No.	Completion Date	CASING DEPTH	Total Depth
[illegible]	30420	9/9/88	96'	150'

Driller Signature	Registration No.
Rick Skidmore	30420

095880444

Type of work: Construct X Repair ___ Abandon ___

Well Use: Private ___ Public ___ Monitor ___ Irrigation X

Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool X Jet ___ Combination ___

Other ___

Casing: Black Steel X Galvanized ___ PVC ___ Other ___

Screened From ___ Ft. to ___ Ft.

Bags of Grout ___ Interval Grouted ___ Ft. to ___ Ft.

Static Water Level 52 Ft. below Top of Casing

Pumping Water Level ___ Ft. after ___ Hrs. at ___ GPM

Pump Size 2 H.P. Capacity ___ GPM

N

Grout Thickness & Depth	Casing Diam.	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
	4"		0	10	Sand
			10	20	Sand
			20	30	Sand & clay
			30	40	Sand & clay
			40	50	Clay
			50	60	Clay
			60	80	Clay
			80	90	Clay & sand
			90	100	Gray lime
			100	150	White lime

FILMED

WELL LOCATION

Address Steel Lake Phase I

Subdivision Ridgemore Lot # 1

Latitude - Longitude

County Orange

Section 35 Township 22S Range 28E

Located Near:

Cuttings sent to District? ( ) Yes (X) No

RECEIVED SEP 12 1988 RECORDS PALATKA

COMPLETED

WELL COMPLETION REPORT (USE BALL POINT)

PERMIT NO. 9732

Jack O'Conner — Address: [illegible] Dr. Orl. Fl. 32810

Owner — Address — City — State — Zip

Randle Patton — Licensed No. — Completion Date: July 1987 — CASING DEPTH: 200' — Total Depth: 69'

Contractors Signature — Licensed No. — Completion Date — CASING DEPTH ← → Total Depth

H. H. Elding — Registration No.: E40931 — 095 87 0328

Driller's Signature — Registration No.

Type of work: Construct ✓ Repair ___ Abandon ___

Well Use: Private ✓ Public ___ Monitor ___ Irrigation ___

Industrial ___ Recharge ___ Other ___

Method: Rotary ___ Cable Tool ✓ Jet ___ Combination ___

Other ___

Casing: Black Steel ✓ Galvanized ___ PVC ___ Other ___

Screened From ___ Ft. to ___ Ft.

Bags of Grout ___ Interval Grouted ___ Ft. to ___ Ft.

Static Water Level 30' Ft. below Top of Casing

Pumping Water Level ___ Ft. after ___ Hrs. at ___ GPM

Pump Size 1 H.P. Capacity ___ GPM

N

Grout Thickness & Depth	Casing Diam	Casing Depth	Depth (ft.) From	Depth (ft.) To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
		4"	0	55	Sand green hard
			55	101	Sand & Shell green
			101'	145	White Clay firm
Water level at 30'			145	185'	White Clay soft
			185	200'	Lime Brown firm

WELL LOCATION

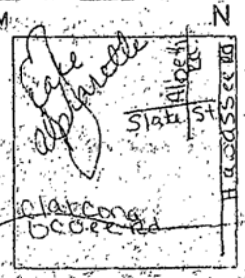
Address 6162 Albeth Dr. Orl. Fl. 32810

Subdivision ___ Lot # ___

Latitude - Longitude ___

County Orange

Section 35 Township 22S Range 28E



Located Near

SEP 1 1987

RECORDS
BALATICS

ENTERED EDP

Cuttings sent to District? ( ) Yes (✓) No

APPENDIX D

OPERATION PLAN

OPERATION PLAN
FOR
KEENE ROAD SOUTH
CLASS III LANDFILL
ORANGE COUNTY, FLORIDA

Submitted to:

Florida Department of Environmental Protection
Central District
3313 Maguire Boulevard, Suite 232
Orlando, Florida 32803

Prepared for:

WASTE MANAGEMENT INC. OF FLORIDA
255 WEST KEENE ROAD
APOPKA, FLORIDA 32703
407-886-2920

Prepared by:

S2L, Incorporated
531 Versailles Drive, Suite 202
Maitland, Florida 32751
407-475-9163

January 2006

OPERATION PLAN

KEENE ROAD SOUTH CLASS III LANDFILL

Updated: January 2006

OPERATION PLAN
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OPERATION PLAN

1.0 INTRODUCTION

Waste Management Inc. of Florida (WMIF) owns and operates the Keene Road South Class III Landfill (KRS). This Operation Plan addresses the day-to-day operations at KRS and complies with the requirements of Chapter 62-701, Florida Administrative Code (FAC).

2.0 DESIGNATION OF RESPONSIBLE PERSONS

District Manager / Operations Supervisor:	Bob Oliver
Telephone	321-229-1580
Compliance and Construction Engineer:	John Cook
Telephone	407-832-8780

Mr. Bob Oliver is the District Manager for WMIF and the Operations Supervisor for KRS. Responsibility of overall management and operation of KRS rests with the District Manager. The District Manager has the authority to obtain the necessary personnel to operate the site and provide for their training and orientation. The District Manager ascertains the facility's need for equipment, has the authority to replace existing equipment or obtain new equipment, and is responsible for administering the provisions of the site operation plan.

The Compliance and Construction Engineer, Mr. John Cook, is responsible for facility compliance, as well as assisting with operational issues. Groundwater and landfill gas sampling, submittal of monitoring reports, surveying of disposal area limits, and facility planning are all done under the Engineer's direction.

The day-to-day operations of the site are directed by the Operations Supervisor (Mr. Oliver), who is assigned to the site and is responsible for site personnel attendance and performance. As such, he routinely directs the daily activities of the scale house attendant, landfill operators and spotters, and other support personnel.

The landfill will have at least one trained operator at the landfill during all times when waste is received. The landfill will also have at least one trained spotter to detect unauthorized waste at the working face at all times when the landfill receives waste.

3.0 CONTINGENCY OPERATIONS

Contingency operations include emergencies such as fire, natural disasters, and equipment failure. Waste will not normally be delivered to the site during emergency conditions. The following contacts are provided for ease of reference:

• EMERGENCY RESPONSE (Fire Dept., Hazmat, Police, Medical/Ambulatory)	9 – 1 – 1
• City of Apopka Fire Department	407-703-1756
• City of Apopka Engineer	407-703-1718
• State Emergency Response Coordinator	850-488-1320
• National Emergency Response	800-424-8802
• Florida Department of Environmental Protection (Solid Waste)	407-893-3328

IN CASE OF AN EMERGENCY, employees should follow the *Emergency and Fire Preparedness Guidelines* document rather than the brief summaries that follow.

3.1 Natural Disasters / Storms

- Initial cover will be applied to all exposed refuse.
- All landfill equipment will be parked near natural windscreens, earthen mounds, or tree areas.

- All lightweight signs and equipment will be collected and stored in a secure area.
- Work will begin only in dry areas when operations are resumed; refuse materials will not be deposited in standing water.

3.2 Landfill Fires

- The City of Apopka Fire Department must be called immediately upon discovery of any fire on the property (9-1-1, or 407-703-1756).
- Fire extinguishers may be used to smother smaller fires.
- Soil stockpiles will be located in the vicinity of the working face. The application of soil cover may be used to cut off the flow of oxygen to a fire.
- Employees have received fire fighting training and are aware that landfill fires may burn in the subsurface. Subsurface fires may cause the overlying surface to "cave-in", so equipment operators should use extreme caution when using equipment on the landfill during a fire.

3.3 Vehicular or Equipment Fires

- Bring vehicle or equipment to a safe stop away from fuel supplies, solid waste, or other vehicles; shut off the engine and engage brake or use any other method to prevent subsequent movement of the vehicle;
- Immediately call the Fire Department or assign someone to call, regardless of the apparent extent of the fire;
- Alert other station personnel;
- Assess the extent of the fire and the possibilities for the fire to spread dangerously;
- If it appears that the fire can be safely fought with available fire-fighting devices until the Fire Department arrives, attempt to contain or extinguish the fire;
- Upon arrival of Fire Department personnel, direct them to the fire and render any assistance requested; and
- Notify the Operations Supervisor.

3.4 Vehicular Accidents

- Determine the nature and extent of the injuries;
- Administer common emergency first aid techniques, as necessary;
- Call for outside emergency assistance, such as an ambulance, if injuries appear to require professional medical attention or emergency transportation to medical facilities;
- Follow policy requirements identified in the WMIF Corporate Safety Manual;
- Determine if the vehicle(s) can be safely moved under its own power; if so, move the vehicle(s) out of the way of normal traffic flow;
- If the vehicle(s) cannot move under its own power and is interrupting traffic flow, push the vehicle(s) out of the way using site equipment;
- Notify the Operations Supervisor of the details of the accident; and
- Arrange to have any disabled vehicles towed from the site in accordance with specific instructions from the Operations Supervisor.

4.0 CONTROL OF INCOMING WASTE

In accordance with Rule 62-701.200(14), Florida Administrative Code, only Class III waste, defined as *yard trash, construction and demolition debris, processed tires, asbestos, carpet, cardboard, paper, glass, plastic, furniture other than appliances, or other materials approved by the Department that are not expected to produce leachate which poses a threat to public health or the environment,* is knowingly accepted for disposal.

KRS does not knowingly dispose of hazardous waste, putrescible waste, liquid wastes, brown goods (small appliances, electronic goods, cathode ray tubes, etc...), or any other non-Class III waste material. Unacceptable loads are rejected as described in Section 4.1. Once Class III waste has been accepted and unloaded, spotters proceed to remove unacceptable wastes and place them into containers destined for other facilities properly permitted to receive such wastes.

Although State and City requirements do not currently prohibit the disposal of CCA treated wood at Class III Landfills, WMIF is committed to being proactive. Spotters are encouraged to identify and remove CCA treated wood, for disposal at a lined facility, to reduce the quantity of CCA treated wood being disposed at KRS.

4.1 Random Load-Checking Program

A load-checking program has been implemented at the facility to detect and discourage attempts to dispose of unauthorized wastes at the landfill. The program consists of the following minimum requirements specified in Rule 62-701.500(6)(a), FAC.

1. The landfill operator examines at least three random loads of solid waste delivered to the landfill each week. The waste collection vehicle drivers selected by the inspector are directed to discharge their loads at a designated location within the landfill. A detailed inspection of the discharged material is then made for any unauthorized wastes.

2. If unauthorized wastes are found, WMIF will contact the generator, hauler, or other party responsible for shipping the waste to the landfill to determine the identity of the waste sources.

At least one spotter is stationed at the working face at all times when the landfill receives waste to detect unauthorized wastes. During times of reduced disposal activities, a trained operator may serve as the spotter. If unauthorized wastes are detected, then the waste will not be accepted at the landfill and the generator, hauler, or other party responsible for shipping the waste to the landfill will be contacted to determine the identity of the waste source.

4.2 Inspection Results Record

Information and observations from each random inspection are recorded in writing and retained at the site for at least three years. The recorded information includes, at a minimum, the following information:

1. Date and time of the inspection.
2. Names of the hauling firm and the driver of the vehicle.
3. Vehicle license plate number.
4. Source of waste, as stated by the driver.
5. Observations made by the inspector during the detailed inspection.

The written record is signed by the inspector.

4.3 Handling Hazardous Wastes

If any regulated hazardous wastes are identified by random load-checking, or are otherwise discovered to be improperly deposited at the landfill, the operator will promptly notify the following parties:

1. City of Apopka Fire Department: 407-703-1756
2. Florida Department of Environmental Protection: 407-894-7555
3. The person responsible for shipping the wastes to the landfill
4. The generator of the wastes, if known

The area where the wastes are deposited will be immediately restricted from public access. If the generator or hauler cannot be identified, the Operations Supervisor will ensure the cleanup, transportation, and disposal of the waste at a permitted hazardous waste management facility. Subsequent shipments from sources found or suspected to be previously responsible for shipping regulated hazardous waste will be subject to precautionary measures prior to the facility accepting wastes.

4.4 Handling Special Wastes

Asbestos-containing materials, non-friable and friable, are accepted and disposed at KRS only under specific conditions. The asbestos waste generator/hauler must notify the Operations Supervisor prior to transporting the asbestos waste. The asbestos is disposed of in designated and recorded areas. The asbestos is then carefully covered in a manner so that neither equipment nor personnel come in contact with the waste.

4.5 Operating Personnel

The Operating Supervisor and/or designee are trained in accordance with Rule 62-701.320(15), FAC. At least one trained operator will be at the landfill during all times when waste is received. Also, the landfill will have at least one spotter at the working face to detect unauthorized wastes at all times when the landfill receives waste.

4.6 Weighing of Incoming Waste

Yard waste from all commercial accounts entering KRS will be weighed using the truck scales located near the entrance to the site. All solid waste accepted at the facility is weighed. Tare weights of the trucks are determined as the emptied vehicle leaves the site. Tare weights for waste haulers that regularly visit the site are recorded so that they do not need to be weighed each time they leave the site unless specifically required by contract or to meet facility needs. Invoices are based on either the weight or yard waste disposed.

5.0 WASTE RECORDS

The Scale Attendant records, in tons and cubic yards per day, the amount of solid waste received at the site. Waste reports will be compiled monthly, and copies will be provided to the City of Apopka and FDEP quarterly.

6.0 TRAFFIC CONTROL AND UNLOADING

6.1 Control of Facility Access/Security and Setback

Traffic to and from the site is controlled by the use of a single public entry, complete perimeter six foot chain link fence with a locking gate, and an attendant present during operating hours. There is a sign at the site entrance with an emergency contact name and phone number. Gates at all roadway points are kept locked outside of normal working hours. All refuse traffic is required to pass by the scale house to gain entry to active portions of the landfill. Public access and receipt of wastes occur only when an attendant is on duty. Additionally, three foot square signs indicating "no trespassing" are installed on the fencing at 500-foot increments and at each corner.

The inside perimeter road and other on-site roads are maintained to allow access to monitoring devices and stormwater controls and for landfill inspections and fire fighting. WMIF will maintain an all-weather access road, as well as other perimeter and access roads, to help ensure that landfill traffic can continue to move efficiently, even during rain events.

Waste disposal activities are performed in accordance with the Plans permitted by the City and the FDEP.

6.2 Control of Access and Unloading to Active Face

Waste haulers are directed from the controlled entrance point to the working face. Once at the active face of the landfill, the trained spotter directs traffic to the proper location to deposit waste. As the waste is deposited, landfill compaction equipment spreads and compacts the waste.

7.0 METHOD AND SEQUENCE OF FILLING WASTE

Generally, waste placement and ongoing operations are screened from view as is practical. Solid waste is placed into cells to construct horizontal lifts. The solid waste will be placed in layers and compacted using landfill equipment. Lift depth may vary depending on specific conditions, daily volume of waste, width of working face, and good safety practices. The compacted waste will be graded with slopes not to exceed 3H:1V. Access roads have maximum slopes of 10% in order to readily allow vehicular access to the working face even during inclement weather conditions. The working face is maintained to minimize the amount of exposed waste and initial cover necessary at the end of the week.

The sequence of filling is illustrated on the Plans approved by the City and the FDEP. Waste disposal activities will continue until the final grade elevations have been reached. The final grades are also illustrated on the permitted plans.

8.0 WASTE COMPACTION AND COVER APPLICATION

8.1 Waste Compaction

Solid waste at the KRS Class III landfill is spread in layers approximately three feet thick and compacted using suitable heavy equipment. Bulky materials that are not easily compacted are worked into other materials as much as is practical.

8.2 Cover

8.2.1 Initial Cover

The initial cover will be applied and maintained in accordance with Rule 62-701.500(7)(e)(2) FAC. A six-inch thick soil cover is placed on top of the waste at the end of each week's operation in order to mitigate blowing litter. An alternative weekly

cover in the form of geosynthetic material, tarpaulin, or other approved materials such as 50/50 mix of soil and mulch may be applied to the active face at the conclusion of each working week. The initial cover is the landfill's primary defense against fires, odors, blowing litter and moisture infiltration. Although Class III waste does not typically attract larger wildlife (such as birds), the initial cover also minimizes the potential for attracting animals and other disease vectors.

8.2.2 Intermediate Cover

Intermediate cover, consisting of 12-inches of soil (in addition to the initial cover), shall be applied and maintained within seven days of cell completion if additional waste will not be deposited within 180 days of cell completion. All or part of the intermediate cover may be removed before placing additional waste or installing the final cover. The intermediate cover will be the primary focus of erosion control for landfill operators. On a routine basis, and after significant rainfall events, operators should inspect landfill side slopes for signs of erosion. Eroded cover should be repaired by placing and compacting additional soil or soil/mulch mixture.

8.2.3 Final Cover

Areas of the landfill which have been filled to design dimensions shall receive final cover within 180-days after attaining final elevation or in accordance with the closure plan for the landfill. The final cover will be constructed in accordance with Rule 62-701.600(5)(g) FAC. The barrier layer installed consists of only soil (clay) and has a permeability of $1x10^{-5}$ cm/s or less. The barrier layer is 18-inches thick and will be installed in six-inch thick lifts. There is an 18-inch thick final layer of soil, placed on top of the barrier layer, that will sustain vegetation to control erosion. Erosion of the final cover should be monitored and repaired as necessary after closure. Procedures will be described in more detail in an updated Closure Plan before facility closure.

8.3 Scavenging

Uncontrolled and unauthorized scavenging is not allowed at this facility. However, controlled removal by landfill personnel of recovered material recycling may be permitted.

8.4 Litter Control Devices

A litter control policy is employed to minimize litter from leaving the working face of the landfill. Portable fences are used, where necessary, to control blowing litter in the active landfilling areas. Litter is policed in the immediate proximity of the landfill, as necessary, to control any problems which may arise from debris blowing from trucks traveling to the landfill.

8.5 Vector Control

Vector control consists of maintaining a clean site, waste screening, constructing sufficient initial and intermediate cover, and minimizing ponded water in areas of landfill cover. Proper compaction of wastes eliminates many of the breeding areas used by these pests during the work week. Proper implementation of the drainage design inhibits ponding on the landfill.

8.6 Noise Control

Operational measures, such as construction of temporary berms, may be used to reduce noise generated at the site. Noise will be minimized to the best practical extent; however, some noises will continue to be present such as back-up alarms and other measures which are required by OSHA for safety. Also, operating activities will be limited to normal working hours.

9.0 WATER QUALITY AND SURFACE WATER MONITORING PLAN

Groundwater is monitored in accordance with the requirements of the FDEP and the City of Apopka Operation Permits. Water quality monitoring is performed by qualified personnel. Employees are instructed to be aware of the groundwater wells to help ensure that the wells are not damaged during routine landfill operations.

10.0 GAS CONTROL/MONITORING PROGRAM

KRS will only accept Class III materials which are expected to generate low levels of methane gas in comparison to generation rates at Class I landfills.

A routine gas-monitoring program has been established at KRS in accordance with Rule 62-701.400(10) and 62-701.500(9), FAC to monitor the perimeter of the property, as well as any structure intended for human occupation, for the presence of combustible gas. Again, employees are instructed to be aware of the locations of the gas monitoring probes so that they are not damaged.

11.0 LANDFILL FINAL CLOSURE

An updated Closure Plan will be provided to the FDEP prior to facility closure. This closure plan will contain a closure report, closure design, closure operation plan, closure procedures, and discussions on long-term care and financial assurance.

12.0 STORMWATER CONTROL SYSTEMS

Stormwater management within the active portion of the landfill is achieved by grading all working face areas so that stormwater will be diverted into a ditch at the landfill base channel or directly into the stormwater basin(s). The permitted Stormwater Management Plan includes drawings of the landfill final grades, grading of ponds and swales, and stormwater modeling results.

13.0 OPERATING RECORD

The operating record consists of all records, reports, analytical results, and notifications required by Chapter 62-701 FAC and Chapter 66 of the City of Apopka Code of Ordinances. The training certificates specified in Rule 62-701.320(15) FAC will also be included in the operating record. The operating record is considered part of the Operation Plan, and will be kept with the plan at or near the facility. At reasonable times, this record will be available for inspection by City and FDEP personnel.

14.0 EQUIPMENT AND OPERATING FEATURES

14.1 In-Service Equipment

WMIF utilizes and maintains adequate equipment based on incoming waste for operation of KRS. Substitutions and additions or reductions to the existing equipment may occur over the life of the project. Equipment is increased as dictated by the following: types and volume of waste received, need for additional roads, final cover application, construction of new parcels, etc. If additional equipment is ever needed, it is immediately available from other company operations and by local rental should any anomalous situation dictate the requirement for such equipment. KRS is equipped approximately as follows;

Table 1 – Approximate Equipment Inventory

Equipment Description	Use
Cat 950	Loader
Cat D8R	Dozer
Cat D6H	Dozer
Cat 826C	Compactor
Cat 836	Compactor
Cat 623 E	Scraper

Equipment Description	Use
Chevy 2000 P/U 2WD	Pickup truck
Chevy 2000 P/U 4WD	Pickup truck
Ford F450	Service truck
Gallon T500	Dump truck
Street Sweeper	Entrance road cleaning
Ford 1998	3000 Gallon water truck

Routine maintenance and cleaning are performed as necessary to keep the equipment in good operating order.

14.2 Reserve Equipment

If a required piece of equipment breaks down, it will be repaired at the on-site maintenance building, or sent to a service facility for repairs. If the required equipment will be out of service for an extended period of time and backup equipment is not available on-site, a replacement can be rented from equipment suppliers and be available at the site within 24 hours.

14.3 Equipment Safety Devices

Vehicles and equipment used by employees at the landfill are equipped with all safety devices required by law.

14.4 Communication Equipment

Communication equipment at KRS consists of telephone service for outside communications and portable radios for communications between company vehicles and equipment.

14.5 Personnel Facilities and Equipment

On-site structures include an administration trailer, scale house, caretaker residence, and maintenance buildings/facilities used for equipment repair. The scale house is located near the entrance to the facility along the north property boundary.

14.6 Dust Control Methods

Dust is controlled in landfilling areas at KRS by water truck and by establishing vegetative cover on areas within final and intermediate cover.

14.7 Fire Protection and Fire Fighting Equipment

Fire protection procedures include maintaining soil stockpiles in the vicinity of the working face. The weekly cover used in the landfill operation provides an effective fire wall.

Should a fire occur at the landfill, the application of soil will be used to cut off the flow of oxygen into the burning areas. Appropriate fire extinguishers are carried on the equipment at all times and can be used to control any small equipment fire that may occur. Employees should refer to the Contingency Plan (Section 3.0 of this document) or the Emergency and Fire Preparedness Guidelines manual for more information on fighting fires.

14.8 Landfill Signs

Signs are utilized to inform the public of important information concerning KRS. Signs are placed near the entrance of the landfill to provide information concerning the name of the operating authority, traffic flow, operating hours, and restrictions or conditions of disposal.

14.9 Financial Responsibility Requirements

Proof of financial responsibility is prepared in accordance with FDEP requirements. The final closure cost estimates will be updated on an annual basis, and WMIF will maintain a bond, insurance certificate, or other acceptable financial assurance mechanism to demonstrate financial responsibility. Financial responsibility with FDEP is based on the understanding that WMIF will abide by the permitted Engineering Drawings for landfill operations.

15.0 OPERATING HOURS

The normal operating hours of the facility are as listed below:

Weekdays: 7:00 a.m. to 6:00 p.m.; and
Saturdays: 8:00 a.m. to 5:00 p.m.

* * * * * *

EXHIBIT A

TRAINING PLAN AND DOCUMENTATION

TRAINING PLAN AND DOCUMENTATION

The Operators and Spotters responsible for the Keene Road South (KRS) Class III Landfill have completed the training requirements for Class III facility operations and will comply with continuing education requirements associated with these provisions. Additionally, other employees have completed the spotter training courses offered by the TREEO Center and are required to comply with continuing education requirements appropriate for facility spotters. Interim spotters, under the direction of a trained operator or spotter, are also utilized at this facility.

In addition to courses offered by the TREEO Center, KRS frequently employs outside training and consulting services to train new operators or spotters, or to assist in fulfilling continuing education requirements. A listing of the courses that may be used for the training of new facility personnel, or complying with the continuing education requirements for existing personnel, was downloaded from the TREEO website and is included within the following several pages. Subsequently, employee training documentation is provided.

******

UNIVERSITY OF FLORIDA
TREEO CENTER

Calendar
SOLID WASTE MANAGEMENT FACILITIES COURSES
www.treeo.ufl.edu

	Courses	Continuing Ed Hours Awarded					2006											
		I II III	C&D	Transfer	MRFs	Spotter	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Initial Operator	▸Construction & Demolition Debris Landfill Short Course	16	16								Tampa 5/17-19							
	24-Hour Initial Training for Class I, II, III / C&D Operators	16	16					TREEO 2/22-24				TREEO 6/21-23					▸Tampa 11/15-17	
	▸SWANA-Manager of Landfill Operations [MOLO®]	16	16	8	8									Daytona 8/29-9/1				
	▸SWANA-MOLO Exam ▸SWANA-Recycle Sys Exam									Panama 4/4			Naples 7/27	Daytona 9/1			Tampa 11/16	
	19-Hour Initial Training for Transfer Station & MRF Oper	10	10	8	8		TREEO 1/26-27			TREEO 4/13-14			Naples 7/27-28			TREEO 10/19-20		
Initial Spotters	Basic Landfill Operations	8	8	8	8	8			Orlando 3/21									
	+ Spotter Training for Solid Waste Facilities	8	8	8	8	8	TREEO 1/18	TREEO 2/22		TREEO 4/25	Tampa 5/17	TREEO 6/21		TREEO 8/23	Sarasota 9/13	TREEO 10/25		TREEO 12/4
	Spotter Training for Solid Waste Facilities-*SPANISH*	8	8	8	8	8		Orlando 2/1			Tampa 5/17			Sarasota 8/16		TREEO 10/25		
	Training for Spotters at C&D Sites, Landfills and TS	8	8	8	8	8											▸Tampa 11/15	
Continuing Education	Groundwater Issues for Landfill Operators	8	8							TREEO 4/26								
	+ Health & Safety Training for Solid Waste Workers	8	8	8	8	8				Wn Hav 4/12					Sarasota 9/14			
	Landfill Gas Safety Training: Nature, Hazards, Regs 1-5pm	4	4			4		TREEO 2/8										
	Landfill Gas and Leachate Systems	8	8														▸Tampa 11/16	
	+Safety Awareness at Transfer Stations			8	8	8		TREEO 2/10						TREEO 8/24				
	Spotter Training for SWF-Refresher 1-5pm	4	4	4	4	4	TREEO 1/18	TREEO 2/22		TREEO 4/25	Tampa 5/17	TREEO 6/21		TREEO 8/23	Sarasota 9/13	TREEO 10/25		TREEO 12/4
	+Permit Required Confined Space Training	8	8	8	8			TREEO 2/9				TREEO 6/22					▸Tampa 11/17	
	+Excavation and Trenching Competent Person	8	8									TREEO 6/23						
	Introduction to Electrical Maintenance	16	16	16	16			TREEO 2/21-23										
	+HazMat Chemistry for The Non-Chemist	8	8	8	8	8		TREEO 2/6								TREEO 10/23		
	+Chemical Compatibility and Storage	8	8	8	8	4		TREEO 2/7								TREEO 10/24		
	Hazardous Waste Regulations for Generators	4	4	4	4	4			Tampa 3/31									
	U.S. DOT Haz Materials/Waste Transportation	6	6	6	6				Tampa 3/30									
	FL Stormwater, Erosion and Sedimentation Control	12	12	8	4				TREEO 3/6-7									
	Management of Leachate, Gas, Stormwater and Odor	8	8						Orlando 3/20									
Engineers	Landfill Design and Construction	28								Tampa 4/10-14								
	Laws and Rules for Florida Engineers	*4 hours for PEs only*							Orlando 3/20	Panama ▸4/6	Tampa 5/18	Ft. Laud 6/14	Naples 7/27	Ft. WB 8/14				
	Leachate and Landfill Gas Management System Design	*16*									Orlando 5/22-23							
OnLine	Two-Hour Spotter Refresher	2	2	2	2	2												
	Hazardous Materials Awareness for Solid Waste	5	5	5	5	2												
	HazWoper 8hr Refresher Online	4	4	4	4	4												

To meet the training requirement of FAC 62-701 Operator(s) or spotter(s) must: Successfully complete an approved initial training course, be in attendance for entire course. Operators must pass exam - 70% or higher

▸Courses offered in cooperation with SWANA - Florida Chapter

+On-site training available

Classification	Initial Course	Continuing Education
Class I, II & III / C&D Landfill	24 hours	16 hours
Transfer Station / MRF	16 hours	8 hours
Spotter [of all type facilities]	8 hours	4 hours

TREEO CENTER

Register online at www.treeo.ufl.edu

Information/agendas: www.treeo.ufl.edu or contact Dawn Jenkins, 352/392-9570 ext 227 or djenkins@treeo.ufl.edu

Updated: Friday, December 16, 2005

Florida's Solid Waste Management Facility Operator and Spotter Approved Initial and Continuing Education Courses

Last updated 6/24/03

Initial training courses can be taken for continuing education credit if the course was not taken as the initial training course.
The initial course can be retaken as continuing education credit during the second three-year training period.
Courses taken prior to your initial training does not count toward continuing education.

Class I, II, III Landfill Operators [*Initial Training*]

No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
30	SWANA - Manager of Landfill Operations Training Course [MOLO®]	SWANA	30				
160	SWANA - Manager of Landfill Operations [MOLO®]	SWANA-FL / UF TREEO	30	30			
195	24-Hour Initial Training Course for Landfill Operators (Class I, II and III and C&D Sites)	Kohl Consulting, Inc.	24				

Construction and Demolition Debris Operators [C & D] [*Initial Training*]

No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
200	Construction and Demolition Debris Landfills - A Short Course for Operators-24 hours	SWANA-FL / UF TREEO		24			
195	24-Hour Initial Training Course for Landfill Operators (Class I, II and III and C&D Sites)	Kohl Consulting, Inc	24	24			

Transfer Stations [*Initial Training*]

No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
196	16-Hour Initial Training Course for Transfer Station Operators	Kohl Consulting, Inc			16		
225	19-Hour Initial Training for Transfer Station and MRF Operators	Kohl Consulting, Inc			19	19	
42	Transfer Station Design & Operations	SWANA			16		
222	SWANA - Managing MSW Transfer Station Systems	Solid Waste Association of North America SWANA			16		

Materials Recovery Facilities [MRF] [*Initial Training*]

No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
225	19-Hour Initial Training for Transfer Station and MRF Operators	Kohl Consulting, Inc			19	19	
197	16-Hour Initial Training Course for Materials Recovery Facilities [MRFs]	Kohl Consulting, Inc				16	

Spotters [*Initial Training*]

No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
203	8 Hour Initial Training for Spotters at Class I, II, III Landfills, Waste Processing Facilities, and C&D Sites	Kohl Consulting, Inc.	8	8	8	8	8
219	8-Hour Initial Training for Spotters	Consolidated Resource Recovery, Inc.	8	8	8	8	8
97	Basic Landfill Operations	Kohl Consulting, Inc.	8	8	8	8	8
91	Eight Hour Spotter Training for C&D Sites	Kohl Consulting, Inc.	8	8	8	8	8
121	Eight-Hour Training for Personnel at C&D Materials Recovery Facilities	Kohl Consulting, Inc.	8	8	8	8	8
111	Landfill Operations and Waste Screening for Class I, II & III Sites	Kohl Consulting, Inc.	8	8	8	8	8
257	Spotter Training Course – 8 Hours Initial Training	Hewitt Contracting Company, Inc.	8	8	8	8	8
248	Spotter Training for Solid Waste Facilities	UF TREEO	8	8	8	8	8
214	Spotter Training Plan for Land Clearing Debris Site	Wetland Solutions	8	8	8	8	8
147	Training for Spotters at Landfills, C&D Sites and Transfer Stations	JEA/TREEO	8	8	8	8	8
36	Waste Screening & Identification For Landfill Operators and Spotters	TREEO	8	8	8	8	8
122	Waste Screening and Operation Orientation for Transfer Station Personnel	Kohl Consulting, Inc.	8	8	8	8	8
9	Waste Screening at MSW Management Facilities {On-site Delivery}	SWANA	10	10	10	10	10

Continuing Education			I, II, III	C&D	Transfer	MRF	Spotter
No.	COURSE TITLE	PROVIDED BY					
204	1-Hour Overview of Health & Safety Issues at Solid Waste Facilities	Kohl Consulting, Inc	1	1	1	1	
105	11th Annual SE Recycling Conference & Trade Show [3/1-4/98]	SE Recycling	8	8			
197	16-Hour Initial Training Course for Materials Recovery Facility (MFR) Operators	Kohl Consulting, Inc.	10	10	8	8	
196	16-Hour Initial Training Course for Transfer Station Operators	Kohl Consulting, Inc.	10	10	8	8	
52	17-701 & 17-703 Update [6/17/94]	SWANA - FL	4				
225	19-Hour Initial Training Course for Transfer Station and MRF Operators	Kohl Consulting, Inc	10	10	8	8	
282	24-Hour HazWoper Technician Training	Safety Training & Consulting	6	6	6	6	
195	24-Hour Initial Training Course for Landfill Operators (Class I, II, III, and C&D Sites)	Kohl Consulting, Inc.	16	16			
169	40-hour Train-the-Trainer Program for Hazardous Waste Operations and Emergency Response Program	Chinn Training	8	8	8	8	
283	8-Hour DOT HM-126 Training	Safety Training & Consulting	4	4	4	4	
167	8-Hour HazWoper OSHA Refresher	FDEP / All Pro	4	4	4	4	
144	8-Hour HazWoper Refresher Training	Stephen Mraz	4	4	4	4	
203	8-Hour Initial Training Course for Spotters at Class I, II, III Facilities, Waste Processing Facilities, and C&D Facilities	Kohl Consulting, Inc.	8	8	8	8	8
219	8-Hour Initial Training for Spotters	Consolidated Resource Recovery, Inc.	8	8	8	8	8
270	Advanced Topics in Compost Utilization	UF IFAS Extension Office	2	2		2	2
182	Air Compliance and LGF System Operation [11/9-10/00]	SCS Engineers	16				
288	A Little is Enough: Reducing Man-Made mercury Impacts	UF TREEO Center	2	2	2	2	2
171	An Overview of Solid Waste Technologies and Waste Screening Review	Kohl Consulting, Inc.	2	2	2	2	2
71	Asbestos Awareness Course for Landfill Operators	UF TREEO Center	4	4	4	4	4
127	Asbestos Awareness Refresher Course for Landfill Operators	UF TREEO Center	2	2	2	2	2
236	Authorized Entrant for Permit – Required Confined Spaces	UF TREEO Center	16				
145	Avoiding OSHA Citations and Liabilities in Florida [6/29/99]	Lorman Education Services	6				
143	Basic Confined Space [8/17/99]	North Florida Environmental Services	8	8	8	8	8
97	Basic Landfill Operations	Kohl Consulting, Inc.	8	8	8	8	8
253	Basic Math for Water and Wastewater Operations at FW&PCOA Annual or Regional Short School	Michael Switzer	5	5	5	5	
72	Bird and Wildlife Management at Solid Waste Mgmt Facilities	UF TREEO Center	8	8	8		
206	Bird Management at Solid Waste Facilities	UF TREEO Center	4	4	4		
285	Chemical Compatibility and Storage	UF TREEO Center	4	4	4	4	4
233	Chemicals That You Work With	Charlotte County	2	2	2	2	2
12	Chemistry for Environmental Professionals	UF TREEO Center	8	8	8	8	8
16	Complete Preventative Maintenance: Using New Technologies *[No longer offered]*	UF TREEO Center	13				
278	Compost Tour and Hands-On Training [5/20/03]	UF – IFAS Extension Office	3				
35	Confined Space Entry & Assessment	Applied Associates International	8	8	8	8	
18	Confined Space Entry & Assessment *[no longer offered]*	UF TREEO Center	20				
29	Confined Space Entry & Rescue	South Tech Fire Academy	40	40	40	40	
181	Confined Space for Private Industry	Sarasota Co. Tech	24	24	24	24	
80	Construction and Demolition Debris Landfills - A Short Course for Operators *[no longer offered] (See #200)*	UF TREEO Center/ SWANA – FL	20	20			
200	Construction and Demolition Debris Landfills - A Short Course for Operators - 24 hours	UF TREEO Center/ SWANA – FL	16	16			
103	Construction and Demolition Waste Recycling	UF TREEO Center	7	7		7	7
114	Debris Management G202	FEMA/FL Div	12	12	12	12	12

Continuing Education			I, II, III	C&D	Transfer	MRF	Spotter
No.	COURSE TITLE	PROVIDED BY					
136	Debris Management-Advanced Course (G202-Advanced)	FDEP/FEMA	8	8	8	8	8
161	Design of Lateral Drainage Systems for Landfills [3/14/00]	Tenax	5				
108	Developing a Usable Operations Plan	Kohl Consulting, Inc.	4	4	4	4	4
130	Eight Hour Confined Space Training Course	Charles Davis	8	8	8	8	8
91	Eight Hour Spotter Training for Construction & Demolition Sites	Kohl Consulting, Inc.	8	8	8	8	8
287	Emergency Response Operations for Incident Command	UF TREEO Center	4	4	4	4	
40	Environmental Drilling, Well Installation & Sampling	Nielson Environmental Field School, Inc.	16	16			
271	Environmental Management Systems - Introduction	UF TREEO Center	2	2	2	2	
175	Environmental Management Systems - Overview	UF TREEO Center	4	4	4	4	
176	Environmental Management Systems Internal Audit Procedures	UF TREEO Center	4	4	4	4	
43	Environmental Sampling Laboratory & Data Analysis [12/12-12/94]	Executive Enterprises, Inc.	12				
100	Excavation, Trenching: Competent Person Training	UF TREEO Center	8	8			
284	Excavation, Trenching: Competent Person Training 16-Hour	UF TREEO Center	16	16			
66	Exposure to Bloodborne and Waterborne Pathogens *[No longer offered]*	UF TREEO Center	8				
167	FDEP 8-Hour HazWoper OSHA Refresher [5/3/00]	FDEP / All Pro	4	4	4	4	
199	FDEP 8 Hour HazWoper OSHA Refresher [5/1/01]	FDEP	4	4	4	4	
228	FDEP 8 Hour HazWoper OSHA Refresher [5/22/02]	FDEP / Kenton Brown	4	4	4	4	
232	FDEP 8 Hour HazWoper OSHA Refresher [5/22/02]	FDEP [Bottcher/Knox]	4	4	4	4	
266	FDEP 8 Hour HazWoper OSHA Refresher [5/5/03, 5/9/03]	FDEP	4	4	4	4	
48	FDEP Annual SQG Assessment, Notification & Verification Program Workshop [4/30/96]	FDEP	5				
88	FDEP Annual SQG Assessment, Notification & Verification Program Workshop [5/5-7/97]	FDEP	5				
107	FDEP Annual SQG Assessment, Notification & Verification Program Workshop [5/4-6/98]	FDEP	7	7	7	7	
134	FDEP Annual SQG Assessment, Notification & Verification Program Workshop [5/3-5/99]	FDEP	5	5	5	5	
226	FDEP Annual SQG Assessment, Notification & Verification Program Workshop [5/20-21/02]	FDEP	5	5	5	5	
264	FDEP Annual SQG Assessment, Notification & Verification Program Workshop [5/6-7/03]	FDEP	5	5	5	5	
267	FDEP DOT 4 Hour Awareness Training [5/5/03, 5/9/03]	FDEP	2	2	2	2	2
268	FDEP HHW Facility Design [5/9/03]	FDEP	4	4	4	4	4
54	FDEP HHW & Conditionally Exempt SQG [5/3-5/95]	FDEP	14				
59	FDEP HHW & Conditionally Exempt SQG [5/1/96]	FDEP	5				
84	FDEP HHW & Conditionally Exempt SQG [5/5-7/97]	FDEP	5				
106	FDEP HHW & Conditionally Exempt SQG [5/6-8/98]	FDEP	5	5	5	5	
135	FDEP HHW & Conditionally Exempt SQG [5/5-7/99]	FDEP	5	5	5	5	
166	FDEP HHW & Conditionally Exempt SQG [5/1-3/00]	FDEP	5	5	5	5	
198	FDEP HHW & Conditionally Exempt SQG [4/30-5/1/01]	FDEP	5	5	5	5	
227	FDEP HHW & Conditionally Exempt SQG [5/22-24/02]	FDEP	5	5	5	5	
227	FDEP HHW & Conditionally Exempt SQG [5/7-8/03]	FDEP	5	5	5	5	5
32	Field Sampling Short School [7/22-24/91]	Environmental Technology Center	22				
110	Fires at Landfills	Kohl Consulting, Inc.	2	2		2	
289	Florida Stormwater and Erosion Control and Sedimentation Inspector Training Program	METRA-North	12	12	8	4	
273	Florida Master Naturalist Program – Florida Freshwater Wetlands Systems	UF IFAS Extension Office	4	4	4	4	
155	Four Hour Spotter Orientation for Class I, II and III Supervisors	Kohl Consulting, Inc.	4	4	4	4	4
156	Four Hour Spotter Orientation for Class I, II, and III Landfills	Kohl Consulting, Inc.	4	4	4	4	4

Continuing Education			I, II, III	C&D	Transfer	MRF	Spotter
No.	COURSE TITLE	PROVIDED BY					
119	Four Hour Spotter Training Refresher for Construction & Demolition Sites	Kohl Consulting, Inc.	4	4	4	4	4
113	Full Cost Accounting for Municipal Solid Waste Management [2/17/98]	Terra Tech EM Inc	6				
120	Fundamentals of Operations for MRF Facilities Personnel	Kohl Consulting, Inc.	8			8	
274	Fundamentals of Slope Stability	UF TREEO Center	16	16			
271	General Environmental Workshop [Feb-Mar 2003]	METRA	4	4	4	4	4
154	Geosynthetics for Advanced Solutions [11/4/99]	GSE Lining Tech	6				
152	Groundwater Issues for Landfill Operators	UF TREEO Center	6	6			
17	Groundwater Monitoring, Analysis and Data Interpretation	UF TREEO Center	12	12			
76	Groundwater Monitoring, Requirements and Techniques for Landfills	Kohl Consulting, Inc.	2	2			
101	Hazard Communications Course	Escambia County Emergency Prep	4	4	4	4	4
85	Hazardous Material and Site Investigations	EnSafe	6	6	6	6	6
82	Hazardous Material Chemistry for Non-Chemist [1/18/95]	St. Petersburg Junior College	7				
286	Hazardous Material Chemistry for Non-Chemist	UF TREEO Center					
131	Hazardous Material Recognition Awareness Level Refresher [3/1/96]	Citrus County	4				
81	Hazardous Material Transportation *[no longer offered]*	UF TREEO Center	4				
50	Hazardous Materials Awareness Training [1/25/94]	Citrus County	8				
102	Hazardous Materials in Construction & Demolition Waste	UF TREEO Center	4	4			
224	Hazardous Materials in Construction & Demolition Waste OnLine	UF TREEO Center	4	4			
86	Hazardous Materials Incident Awareness Level Training [2/5/97]	Escambia County Emergency Prep	8	8	8	8	8
70	Hazardous Materials Management Conference [11/6-9/96]	International City & County Mgmt Associate	12				
98	Hazardous Materials Transportation Seminar [5/7-8/97]	City Environmental Services, Inc of Florida	5	5	5		
34	Hazardous Waste & Emergency Response	Applied Associates International	8	8	8	8	8
53	Hazardous Waste Management for Government Employees [9/95, 10/95]	UF TREEO Center	6				
60	Hazardous Waste Mgmt 40 CFR 261-265 [4/17/96]	Occupational Safety Training, Inc.	8				
99	Hazardous Waste Operations & Emergency Response	Sterling Fibers/ESP	3	3	3		
188	Hazardous Waste Operations Emergency Response Refresher	Orange Co. Environmental Protection Division	4	4	4	4	
63	Hazardous Waste Regulations for Generators	UF TREEO Center	4	4	4	4	4
20	Hazardous Waste Training for Solid Waste Managers [7/16/93]	SWANA – FL	5				
217	HazWoper 24-Hour Moderate Risk Online	UF TREEO Center	6	6	6	6	3
216	HazWoper 40-Hour OSHA Health & Safety Online	UF TREEO Center	8	8	8	8	
218	HazWoper 8-Hour Refresher Online	UF TREEO Center	4	4	4	4	4
269	HazWoper 8 Hour OSHA Refresher	Gulf Coast Industrial Services Inc.	4	4	4	4	4
115	HazWoper Material Control & Emergency Response	Air Safe	8	8	8	8	4
170	Health & Safety Issues for Solid Waste Management Facilities	Kohl Consulting, Inc.	8	8	8	8	4
281	Health and Safety for Solid Waste Workers	UF TREEO Center	8	8	8	8	8
69	Health and Safety Training for Hazardous Materials: 40-Hour OSHA Compliance Course	UF TREEO Center	8	8	8	8	
62	Health and Safety Training for Hazardous Materials: 8 hour OSHA Refresher	UF TREEO Center	4	4	4	4	2
223	Health and Safety Training for Landfill Operations OnLine	UF TREEO Center	5	5	5	5	2
149	Health and Safety Training for Landfill Operations	UF TREEO Center	5	5	5	5	2
201	Hiring and Retaining Good Employees	UF TREEO Center	2	2	2	2	
33	Household Hazardous Waste [6/30/94]	Care Environmental Corp.	4				
209	Hurricane Preparedness and Post Disaster Recovery Workshop [8/10/01]	Dewberry & Davis LLC	8	8	8	8	8

Continuing Education			I, II, III	C&D	Transfer	MRF	Spotter
No.	COURSE TITLE	PROVIDED BY					
19	Hydrogeology: Applications of Fundamental Concepts & Field Techniques to Florida Groundwater Investigations *[No longer offered]*	UF TREEO Center	20	20			
11	Inspection Procedures for Agri-chemical Containers offered for Recycling *[No longer offered]*	Dept. of Agriculture & Consumer Services	1				
44	Inspection Procedures for Agri-chemical Containers offered for Recycling [Pesticide] *[No longer offered]*	Institute of Food & Agriculture Science [IFAS]	1				
129	Inspector's Handbook for Construction Projects	Hillsborough County Solid Waste	7				
151	Integrated Management Course: Hurricane Recovery and Mitigation	FEMA/EMI	7	7	7	7	
37	Introduction to Electrical Maintenance *[prior to 1/1/02]*	UF TREEO Center	7				
212	Introduction to Electrical Maintenance *[taken after 1/1/02]*	UF TREEO Center	16	16	16	16	
14	Introduction to Groundwater: Contamination, Investigation, & Remediation Assessment	UF TREEO Center	13	13			
124	Landfill Compaction Training School *[prior to 1/1/02]*	Caterpillar & Ringhaver Equipment	5	5			
229	Landfill Compaction Training School - 8 hours *[taken after 1/1/02]*	Caterpillar & Ringhaver Equipment	8	8			
75	Landfill Compliance Inspections	Kohl Consulting, Inc.	2	2			2
157	Landfill Design and Construction [3/27-30/00]	UF TREEO Center	28				
4	Landfill Design: Cell Design & Construction [3/9/92]	UF TREEO Center	14.5				
6	Landfill Design: Closure & Long Term Care [5/19/92]	UF TREEO Center	15				
2	Landfill Design: Conceptual Design Operations & Monitoring [1/12/92]	UF TREEO Center	14.5				
78	Landfill Design: Landfill Design and Construction [5/5-9/97]	UF TREEO Center	28				
5	Landfill Design: Leachate & Gas Management [3/11/92]	UF TREEO Center	15				
79	Landfill Design: Leachate and Gas Management System Design [6/10-12/97]	UF TREEO Center	21				
3	Landfill Design: Liner Systems Materials Installation & Quality Assurance [2/11/92]	UF TREEO Center	14				
1	Landfill Design: Planning & Permitting [1/21/92]	UF TREEO Center	14				
77	Landfill Design: Planning and Permitting for Solid Waste Management [4/8-9/97]	UF TREEO Center	16				
179	Landfill Gas & Energy: Alternative Uses [9/25-27/00]	CDM, Inc.	8				
49	Landfill Gas & Leachate Systems	UF TREEO Center / SCS Engineers	8	8			
172	Landfill Gas Collection and Control Systems [8/19-20/99]	CDM, Inc.	8				
276	Landfill Gas Collection and Control Systems Operator Training [9/2002]	Waste Management.	12				
83	Landfill Gas NSPS Workshop [7/15/96]	FDEP	6				
67	Landfill Gas NSPS Workshop [7/9/96]	SWANA - FL	4				
57	Landfill Gas System Design- A Practical Approach [6/14-15/94]	Landfill Control Technologies	8				
89	Landfill Gas: How to Profit From the New Mandates [6/17/97]	FDEP	7				
194	Landfill Operating Issues for Class I, II, III and C&D Sites	Kohl Consulting, Inc.	8	8			8
260	Landfill Operation Online	UF TREEO Center	16	16			
261	Landfill Operation	UF TREEO Center	16	16			
111	Landfill Operations and Waste Screening for Class I, II & III Sites	Kohl Consulting, Inc.	8				8
58	Landfill Operator Education (Landfill Mining and Landfill Gas and Leachate Mgmt) [3/22/96]	SWANA - FL	4				
168	Landfill Service School (Leachate Pumps and Controls School) [3/25-26/99]	EPG Companies	7	7			
118	Landfill Wildlife Training Course	Applied Technology & Management, Inc – ATM/UF TREEO Center	4	4			
277	Laws and Rules for Florida Engineers - *only for PEs	UF TREEO Center	4				
158	Leachate and Gas Management System Design [5/9-10/00]	UF TREEO Center	12				

Continuing Education			I, II, III	C&D	Transfer	MRF	Spotter
No.	COURSE TITLE	PROVIDED BY					
125	Management of Leachate, Gas, Stormwater and Odor at Class I, II, III Landfills	Kohl Consulting, Inc.	8	8			
249	Management of Special Waste for SWM Facility Operators	Kohl Consulting, Inc.	4	4	4	4	4
109	Measurements and Calculations for Landfill Operators	Kohl Consulting, Inc.	5	5			
38	Mechanical Maintenance (Pumps and Pumping) *(prior to 1/1/02)* (see #213)	UF TREEO Center	7				
140	Meeting the Challenges of Environmental Liability with Case Studies in Solid Waste [6/16/99]	SWANA - FL	4				
128	Methods of Erosion and Sedimentation Control for Construction Sites	UF TREEO Center/FDEP	6	6			
208	NPDES Phase II Inspector Certification Course	University of Florida – T2 Center	12	12	8	4	
180	NUCA Competent Person Training	Sarasota Co. Tech	8	8			
10	On Site Operations Personnel [11/91]	SWANA - FL					
177	OSHA 40-Hour Course	R. Cooey	8	8	8	8	
165	OSHA 8-Hour HazWoper Annual Refresher [8/25/00]	University of North Florida Safety America	4	4	4	4	2
142	OSHA 8-Hour Refresher for Hazardous Waste Operations and Emergency Response	FDEP/Jamson	4	4	4	4	2
68	OSHA Update Seminar [8/7/96]	J.J. Keller & Associates, Inc.	6				
183	Overview of Class I Landfill Operations and Waste Screening	Kohl Consulting, Inc.	3	3			3
92	Overview of Solid Waste Management Technologies	Kohl Consulting, Inc.	3				
184	Overview of Transfer Stations Operations and Waste Screening Review	Kohl Consulting, Inc.			3	3	3
15	Overview Understanding the Planning & Training Requirements of Big 3:OSHA, EPA, DOT (Regulatory Overview)	UF TREEO Center	7				
192	Pedestrian, Vehicles and Equipment Safety at Transfer Stations	Kohl Consulting, Inc.			2	2	2
186	Pedestrian, Vehicles and Equipment Safely in the Landfill	Kohl Consulting, Inc.	2	2			2
104	Permit Required Confined Space Training	UF TREEO Center	8	8	8	8	
96	Personnel Law Up-date [12/11-12/96]	Council on Education in Management	5				
239	Pollution Prevention and Environmental Essentials Conference	UF TREEO Center	5	1	5	5	
230	Proper Maintenance of Heavy Equipment and Safety	Caterpillar & Ringhaver Equipment	3	3	3	3	3
153	Pump Maintenance [4/13-14/00]	National Tech Transfer	7				
213	Pumps and Pumping *(taken after 1/2/02)*	UF TREEO Center	16	16	16	16	
237	Recycle Organics 2002	University of Florida - IFAS	4	4	4	4	
280	RecycledFlorida Today 10th Annual Conference [6/3-6/03]	RecycledFlorida Today	5	4	5	5	
90	Recycling Coordinator Training Course 1997 (Basic Recycling Training) [5/19-21/97]	UF TREEO Center	8	8			
137	*Recycling Coordinator Training* Course 1999	UF TREEO Center	8	8			
205	Recycling Coordinators Training Course 2001 [8/2--24/01]	SWANA - FL					
146	Recycling Disaster Debris [8/6/99]	University of Central Florida / Engineering	6	6	6	6	6
193	Safe Operating Issues for Transfer Stations	Kohl Consulting, Inc.			2	2	
123	School/University Advanced Recycler Training Course [10/20-21/98]	UF TREEO Center	7	7			
7	Site Monitoring at Solid Waste Facilities	SWANA - FL	10				
139	Solid Waste Facility Operations for Construction and Demolition Operators *[No longer offered]* (See #196)	Kohl Consulting, Inc.		20			
138	Solid Waste Facility Operations for Landfill Operators *[No longer offered]* (See #196)	Kohl Consulting, Inc.	20				
41	Solid Waste in Florida's Small Counties Workshop	Florida Counties Foundation & the Florida Institute of Government	4				
21	Solid Waste Landfill Operators Short School *[No longer offered]*	UF TREEO Center/SWANA - FL	20				
28	Solid Waste Landfills Correspondence Course (course # C240-A180)	University of Wisconsin	20	20			

Continuing Education			I, II, III	C&D	Transfer	MRF	Spotter
No.	COURSE TITLE	PROVIDED BY					
22	Solid Waste Management: Managing Special Waste [5/19/92]	UF TREEO Center	6				
55	Solid Waste Regulatory Review Workshop [3/10/95]	SWANA - FL	3				
257	Spotter Training Course – 8 Hours Initial Training	Hewitt Contracting Company, Inc.	8	8	8	8	8
263	Spotter Training for Solid Waste Facilities Refresher	UF TREEO Center	4	4	4	4	4
248	Spotter Training for Solid Waste Facilities	UF TREEO Center	8	8	8	8	8
214	Spotter Training Plan for Land Clearing Debris Site	Wetland Solutions	8	8	8	8	8
150	Storm Water Management Training	S2Li	4				
202	Stormwater Inspector Certification Course	Sarasota Co. Tech	12	12	8	4	
39	Stormwater Management for Landfills *[No longer offered]*	UF TREEO Center	8				
56	Successfully Contracting for Solid Waste Services [7/14/95]	SWANA - FL	4				
61	Successfully Contracting Solid Waste Services	UF TREEO Center / SCS Engineers	4				
215	SWANA - 2001 Special Waste Conference [12/3-4/01]	SWANA	10	9	10	8	
258	SWANA - 2002 Special Waste Conference [12/5-6/02]	SWANA	10	9	9	9	
242	SWANA - Business Planning, Marketing and Communications for the Solid Waste Industry	SWANA	8	8	4	4	
252	SWANA - FEMA's Debris Management	SWANA	8	8	8	8	8
250	SWANA - Construction and Demolition Debris Course	SWANA	22	22	22	22	8
47	SWANA - Financing Integrated MSW Management Systems [5/14/96]	SWANA	8				
46	SWANA - Groundwater Monitoring/Leachate Mgmt	SWANA	8	8			
94	SWANA - Health & Safety at MSW Landfills	SWANA	10	10			
238	SWANA - Household Hazardous Waste & CESQG Facility Operations 24 hour Training	SWANA / SWANA - FL	15	15	15	15	15
26	SWANA - International Meeting [8/11-13/91]	SWANA	20				
245	SWANA - Leadership Skill Development for Solid Waste Professionals	SWANA	8	8	4	4	
244	SWANA - Landfill Gas Basics	SWANA	8	8			
27	SWANA - Landfill Gas Management (Spring Seminar 1994) [3/4/94]	SWANA	4				
133	SWANA - Landfill Gas Symposium 22nd Annual [3/22-25/99]	SWANA	15				
163	SWANA - Landfill Gas Symposium 23rd Annual [3/22-30/00]	SWANA	15				
190	SWANA - Landfill Gas Symposium 24th Annual [3/19-23/01]	SWANA	18				
262	SWANA - Landfill Gas Symposium 26th Annual [3/25-27/03]	SWANA	15				
231	SWANA - Landfill Gas System Operation and Maintenance	SWANA	20	20			
93	SWANA - Landfill Operational Issues	SWANA	8	8			
74	SWANA - Landfill Symposium 1st Annual [11/4-6/96]	SWANA	17				
87	SWANA - Landfill Symposium 2nd Annual [2/4-6/97]	SWANA	18				
117	SWANA - Landfill Symposium 3rd Annual [7/22-24/98]	SWANA	18				
159	SWANA - Landfill Symposium 4th Annual [6/28-30/99]	SWANA	16				
211	SWANA - Landfill Symposium 6th Annual [6/18-20/01]	SWANA	18				
275	SWANA - Landfill Symposium 8th Annual [6/17-19/03]	SWANA	13				
245	SWANA - Leadership Skill Development for Solid Waste Professionals	SWANA	8	8	4	4	
8	SWANA - Managing Landfill Gas at MSW Landfills	SWANA	10	10	10	10	10
95	SWANA - Managing Landfill Gas at MSW Landfills [1997] *Onsite Delivery*	SWANA	5	5			
30	SWANA - Manager of Landfill Operations	SWANA	16	16			4
160	SWANA - Manager of Landfill Operations [MOLO®]	UF TREEO Center/SWANA - FL	16	16	8	8	
000	SWANA - Manager of Landfill Operations [MOLO®] Exam Only	SWANA/ SWANA - FL	0				
243	SWANA - Managing Composting Programs	SWANA	10	10			
251	SWANA - Managing MSW Collection Systems	SWANA	8		8	8	
246	SWANA - Managing MSW and Recyclables Collection Efficiency Workshop	SWANA	8	8	4	4	
234	SWANA - Managing MSW Recycling Systems	SWANA / SWANA - FL	7	7	7	7	
001	SWANA - Managing MSW Recycling Systems Exam Only	SWANA/ SWANA - FL	0				

Continuing Education							
No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
222	SWANA - Managing Transfer Station Systems	SWANA			8	8	
247	SWANA - Outsourcing Decisions and Contracting Strategies: Risk and Rewards	SWANA	8	8	4	4	
178	SWANA - Paying for your MSW Management Systems-Revenue Generation & Cost Accounting [10/24/00] [10/14/01]	SWANA	7				
174	SWANA - Principles of Managing Integrated Municipal Solid Waste Management Systems	SWANA	7				
45	SWANA - Principles of Managing IMSWM Systems [Certified Municipal Solid Waste Manager I]	SWANA	24				
132	SWANA - Training Sanitary Landfill Operating Personnel	SWANA	5				
216	SWANA - Transfer Station Design & Operations [*course taken after 1/1/2002*]	SWANA			8	8	4
42	SWANA - Transfer Station Design & Operations [*course taken prior to 1/1/2002*]	SWANA	16		16		
191	SWANA - Waste Con 2000 [10/23-26/00]	SWANA	13		13		
221	SWANA - Waste Con 2001 [10/15-18/01]	SWANA	8	2			
254	SWANA - Waste Con 2002 [10/15-18/02	SWANA	6	6	6	6	
259	SWANA - Waste Reduction, Recycling and Composting 14th Annual Symposium [2/24-3/1/2003]	SWANA	7	7	15	15	
9	SWANA - Waste Screening at MSW Mgmt Facilities [On-site Delivery]	SWANA	10	10	10	10	10
141	SWANA-Florida 1999 Summer Conference [8/3-5/99]	SWANA - FL	4				
162	SWANA-Florida 2000 Spring Tri-State Conference [4/3-5/00]	SWANA - FL	3				
173	SWANA-Florida 2000 Summer Conference [8/10-11/00]	SWANA - FL	6	6			
189	SWANA-Florida 2001 Spring Conference [3/29-31/01]	SWANA - FL	3	3			
207	SWANA-Florida 2001Summer Conference	SWANA - FL	5	5	5	5	1
220	SWANA-Florida 2002 Spring Tri-State Conference [4/7-10/02]	SWANA - FL	6	6	6	6	
235	SWANA-Florida 2002 Summer Conference [7/24-26/02]	SWANA - FL	4	4	2	1	
255	SWANA-Florida 2003 Spring Conference [4/7-12/03]	SWANA - FL	6	6	5	5	3
116	The Complete Ground-Water Monitoring Course	Nielson Environmental Field School, Inc.	16	16			
241	The Old Landfill Seminar	UF TREEO Center / SCS Engineers	5	5			
187	Traffic and Equipment Safety at Landfills	Kohl Consulting, Inc.	2	2			2
13	Train-The-Trainer for Environmental Occupations (Management Credit ONLY)	UF TREEO Center	7				
121	Training for Personnel at Construction & Demolition Materials Recovery Facilities	Kohl Consulting, Inc.	8			8	
147	Training for Spotters at Landfills, Construction & Demolition Sites and Transfer Stations	JEA, Inc. / UF TREEO Center	8	8	8	8	8
148	Two-Hour Landfill Spotter Refresher Training Online	JEA, Inc.	2	2	2	2	2
112	US DOT Hazardous Material / Waste Transportation	UF TREEO Center	6	6	6	6	
23	Utility Management Certification: Financial Management [*No longer offered*]	UF TREEO Center	7				
24	Utility Management Certification: Management & Supervision [*No longer offered*]	UF TREEO Center	7				
25	Utility Management Certification: Personnel Management [*No longer offered*]	UF TREEO Center	7				
126	Waste Acceptability for Spotters, Equipment Operators and Scale House Personnel	Kohl Consulting, Inc.	2	2	2	2	2
210	Waste Control and Spotter Safety Awareness	Kohl Consulting, Inc.	2	2	2	2	2
31	Waste Management of North America (Landfill University) *(no longer offered)*	Landfill University	20				
36	Waste Screening & Identification For Landfill Operators and Spotters	UF TREEO Center / SCS Engineers	8	8	8	8	8
256	Waste Screening & Identification For Landfill Operators and Spotters Refresher	Citrus County – Hazardous Waste Section	4	4	4	4	4

Continuing Education								
No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
122	Waste Screening and Operation Orientation for Transfer Station Personnel	Kohl Consulting, Inc.	8		8		
51	Waste Screening at Municipal Solid Waste [5/23/94]	SWANA - FL	6				
164	Waste Tech 2000 [3/5-8/00]	Waste Tech	7				
185	Weighmaster Orientation and Waste Screening Review	Kohl Consulting, Inc.	2	2	2	2	2
73	Wet Weather Operations	Kohl Consulting, Inc.	4	4			
65	What Can I Accept & How Do I Keep It From Blowing Around	Kohl Consulting, Inc.	2				
64	When it Rains, It Pours (And We Stay Open)	Kohl Consulting, Inc	2	2			
279	Wildlife and Wetland Training for Solid Waste Facilities	UF TREEO Center	8	8			
240	WMI Odor School [5/29/02]	WMI / St. Croix Sensory, Inc.	7	7	7	7	7

UNIVERSITY OF FLORIDA
TREEO CENTER

2006 Spotter Training

These courses are approved as initial training courses for spotters and eight hours continuing education for all operators.

Spotter Training for Solid Waste Facilities

Jan. 18, 2006	Gainesville, FL	060634-1
Feb. 22, 2006	Gainesville, FL	060634-2
Apr. 25, 2006	Gainesville, FL	060635-1
May 17, 2006	Tampa, FL	060635-2
June 21, 2006	Gainesville, FL	060635-3
Aug. 23, 2006	Gainesville, FL	070726-1
Sep. 13, 2006	Sarasota, FL	070726-2
Oct. 25, 2006	Gainesville, FL	070029-1
Dec. 4, 2006	Gainesville, FL	070029-2

Cost: $295 Time: 8:00 a.m. – 5:00 p.m.
Solid Waste I II III/C&D/TS/MRF/Spotter: 8.0
SWANA CEUs: 7.5
This course covers the role of spotters at landfills and waste processing facilities. Included is an overview of facility operations focusing on understanding permit conditions and site plans as they relate to the spotter's responsibilities. Other topics include: safety, including fire control, first aid and emergencies at waste sites; managing the working face and incoming waste, prohibited wastes; regulations, with a look at how and why they apply to spotters; the compliance and enforcement process, emphasizing inspection strategies; and emerging issues and trends effecting waste workers.

Spotter Refresher 4-hourTraining for Solid Waste Facilities

Jan. 18, 2006	Gainesville, FL	060636-1
Feb. 22, 2006	Gainesville, FL	060636-2
Apr. 25, 2006	Gainesville, FL	060637-1
May 17, 2006	Tampa, FL	060637-2
June 21, 2006	Gainesville, FL	060637-3
Aug. 23, 2006	Gainesville, FL	070030-1
Sep. 13, 2006	Sarasota, FL	070030-2
Oct. 25, 2006	Gainesville, FL	070031-1
Dec. 4, 2006	Gainesville, FL	070031-2

Cost: $175 Time: 1:00 p.m. - 5:00 p.m.
CEU: 0.4 FBPE PDHs (EXP00074): 4.0
Solid Waste I II III/C&D/TS/MRF/Spotter: 4.0
This course will cover the spotter's role and responsiblities of managing the workface/floor/yard and traffic control. Discussion will also include solid waste regulations, compliance & enforcement issues and personal health & safety.

On-site Training Now Available
Contact Dawn Jenkins at 352/392-9570 ext 227 for information on bringing the 4-hour or 8-hour Spotter Refresher Training to your site.

Spotter Training for Solid Waste Facilities – Spanish

Feb. 1, 2006	Orlando, FL	060236-2
May 17, 2006	Tampa, FL	060236-1
Aug. 16, 2006	Sarasota, FL	070035
Oct. 25, 2006	Gainesville, FL	070035-1

Cost:: $295 Time: 8:00 a.m. - 5:00 p.m.
Hours: 8; CEUs: 0.8
FBPE PDHs (EXP00074): 8.0
Solid Waste I II III/C&D/TS/MRF: 8.0; Solid Waste Spotter Initial: 8.0
This course will cover the spotter's role and responsiblities of managing the workface/floor/yard and traffic control. Discussion will also include solid waste regulations, compliance & enforcement issues and personal health & safety. *Manual and instruction in Spanish.*

Two-Hour Spotter Refresher Training

Online Anytime
Cost: $125
Solid Waste I II III/C&D/TS/MRF/Spotter: 2.0
SWANA CEUs: 1.0
This two-hour, web based computer course provides an overview of spotter operations at landfills, including construction and demolition sites and transfer stations. Topics include: spotter responsibility, communication, traffic management, random load inspections, prohibited waste material, hazardous waste materials, construction and demolition debris facilities, personal safety and landfill fires. You can work at your own pace to complete the course.

Training for Spotters at Construction and Demolition Sites, Landfills and Transfer Stations

Nov. 15, 2006 Tampa, FL 060611
Cost: $295 Time: 8:00 a.m. - 5:00 p.m.
CEU: 0.8 FBPE PDHs (EXP00074): 8.0
Solid Waste I II III/C&D/TS/MRF: 8.0
This 8-hour course provides an overview of spotter operations at landfills, construction and demolition sites and transfer stations. Topics include: spotter responsibility, communication, traffic management, state regulations, inspections, prohibited and hazardous materials, safety, and landfill fires. This course is approved as an initial course for all Spotters.

Information:	352/392-9570
Course:	Dawn Jenkins, ext 227 or djenkins@treeo.ufl.edu
Registration:	Janet Touchton, ext 212 or jtouchton@treeo.ufl.edu

www.treeo.ufl.edu *and click on "Solid Waste."*

To Register

Online: Visit www.treeo.ufl.edu and click on "Solid Waste." Registration by credit card: Visa, MasterCard, or American Express accepted online via a secure website.

Fax or Mail: To pay by Check or Purchase Order, return registration form with payment, to the address listed at the bottom of the form, or fax your registration form to: 352/392-6910, 24 hrs.

Government agencies may pay with a purchase order.

Fed ID# 59-6002052

REGISTRATION WILL BE CONSIDERED COMPLETE ONLY UPON RECEIPT OF BOTH REGISTRATION FORM AND PAYMENT IN U.S. DOLLARS. ALL REMITTANCES SHOULD BE MADE PAYABLE TO THE UNIVERSITY OF FLORIDA.

Services for Persons with Special Needs

Persons with disabilities who require special accommodations should contact Dawn Jenkins at 352/392-9570, ext. 227, at least 10 days prior to the course so that proper consideration can be given to the request.

Cancellation Policy

If you cannot attend, written notification must be received at least two working days prior to the course. You may either transfer to another course, send a substitute, or receive a refund. In the event that a course is canceled, UF/TREEO is not responsible for non-refundable travel fares or lodging deposits.

Location and Accommodations

Participants are responsible for arranging their accommodations and travel. Special rates are available at the hotels listed. To receive the special rate, reservations must be made at least four weeks prior to the course and you must identify yourself as a participant of this UF/TREEO Course.

Gainesville

Location: University of Florida TREEO Center, 3900 SW 63rd Blvd., Gainesville, FL 32608, 352/392-9570.

Accommodations: Hampton Inn, 4225 SW 40TH Blvd. (I-75 & SR24, Exit #284), Gainesville, FL 32608, 352/371-4171, 1-800-426-7866, Fax 352-371-4234, $71 single/double

Tampa

Location and Accommodations: Holiday Inn Express Hotel and Suites 8319 Galbraith Road, Tampa, FL 33647 (I-75 & Exit 270, Bruce B. Downs Rd.)

tel: (813) 615-4500; reservations: (813) 910-7171

Room Rate: $85

Other Locations:

Location and Accommodations: Contact: Dawn Jenkins, 352/392-9570x227

The University of Florida is an Equal Opportunity/Affirmative Action educational institution.
Cost of brochure covered by participants' fees.

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Online registration for this course is available at **www.treeo.ufl.edu**

If paying by check or purchase order you may fax: 352/392-6910, 24 hrs.

REGISTRATION FORM 06-103

Spotter Training for Solid Waste Facilities:

☐ 060634-1	Jan. 18, 2006	Gainesville, FL	$295
☐ 060634-2	Feb. 22, 2006	Gainesville, FL	$295
☐ 060635-1	Apr. 25, 2006	Gainesville, FL	$295
☐ 060635-2	May 17, 2006	Tampa, FL	$295
☐ 060635-3	June 21, 2006	Gainesville, FL	$295
☐ 070726-1	Aug. 23, 2006	Gainesville, FL	$295
☐ 070726-2	Sep. 13, 2006	Sarasota, FL	$295
☐ 070029-1	Oct. 25, 2006	Gainesville, FL	$295
☐ 070029-2	Dec. 4, 2006	Gainesville, FL	$295

Spotter Refresher 4-Hour Training for Solid Waste Facilities:

☐ 060636-1	Jan. 18, 2006	Gainesville, FL	$175
☐ 060636-2	Feb. 22, 2006	Gainesville, FL	$175
☐ 060637-1	Apr. 25, 2006	Gainesville, FL	$175
☐ 060637-2	May 17, 2006	Tampa, FL	$175
☐ 060637-3	June 21, 2006	Gainesville, FL	$175
☐ 070030-1	Aug. 23, 2006	Gainesville, FL	$175
☐ 070030-2	Sep. 13, 2006	Sarasota, FL	$175
☐ 070031-1	Oct. 25, 2006	Gainesville, FL	$175
☐ 070031-2	Dec. 4, 2006	Gainesville, FL	$175

Two-Hour Spotter Refresher Training

☐ Online Anytime $295

Traininig for Spotters at Construction & Demolition Sites, Landfills and Transfer Stations

☐ 060611 Nov. 15, 2006 Tampa, FL $295

Spotter Training for Solid Waste Facilities - Spanish

☐ 060236-2	Feb. 1, 2006	Orlando, FL	$295
☐ 070035	Aug. 16, 2006	Sarasota, FL	$295

☐ 060236-1	May 17, 2006	Tampa, FL	$295
☐ 070035-1	Oct. 25, 2006	Gainesville, FL	$295

NAME: _____

POSITION: _____ COMPANY: _____

MAILING ADDRESS: _____ CITY: _____ STATE: ____ ZIP: _____

BUSINESS PHONE: _____ FAX: _____ **E-MAIL: _____

** For course confirmation and future TREEO information.

Completed registration form and payment are needed to process your registration. Make payment in U.S. currency to: UNIVERSITY OF FLORIDA. Mail registration form and payment to:

UNIVERSITY OF FLORIDA TREEO CENTER
3900 SW 63RD BLVD.
GAINESVILLE, FL 32608-3848

Register one person per form. Photocopy if more forms are needed.

FEE (Check appropriate boxes): Fed ID#59-6002052

☐ Gov't. Purchase Order #: _____

☐ Check Enclosed in the amount of $ _____

Registration by credit card; Visa, MasterCard, or American Express accepted online via a secure website: www.treeo.ufl.edu, click on 'Solid Waste'.

UNIVERSITY OF FLORIDA
TREEO CENTER

2006 Solid Waste Initial Operator Training Courses

Construction and Demolition Debris Landfills: A Short Course for Operators – 24 Hours

*May 17-19, 2006	Tampa, FL	060617

Fee: $465
SWANA: 2.4 FBPE PDHs: 24.0
Course topics include: Introduction, Definition of a C&D Landfill; Role of C&D Landfills in SW Management Programs, State Regulations; Siting C&D Facilities, Economics of C&D Sites; Recycling and Waste Diversion; Components of the Groundwater and Surface Water Monitoring Plans; Complying with Financial Responsibility Requirements; Components of an Operating Plan; Landfill Gas and Leachate; Training Plan Options, Basic Operating Guidelines; and Closure and Long Term Care.
Day One and Two: 7:30 a.m. - 5:00 p.m.
Day Three: 7:30 a.m. - 1:30 p.m.
Instructors provided by SWANA Florida Chapter.

SWANA - Manager of Landfill Operations (MOLO®)

*Aug. 29 - Sept. 1, 2006	Gainesville, FL	070022

For Florida Residents, a portion of the cost of this course is being provided by the Florida Sunshine Chapter of SWANA.
Florida Residents: Member $545, Non-member $595
Non-Florida Residents: Member $765, Non-member $1040
SWANA: 30.0 FBEP PDHs: 30.0
During this (30-hour) four-day advanced course, you learn about the current landfill design and operating practices and requirements, including site selection, wastescreening, gas and leachate issues, training and overview of state and federal regulations. Plus this class offers a field exercise to give you the opportunity to review the classroom concepts and see how they can be applied on the job.
7:30 - 5:30 p.m. daily
Instructors provided by SWANA Florida Chapter.

19-Hour Initial Training Course for Transfer Station Operators and Material Recovery Facilities

Jan. 26-27, 2006	Gainesville, FL	050661-1
Apr. 13-14, 2006	Gainesville, FL	050661-2
*July 27-28, 2006	Naples, FL	070724

Presented at the SWANA FL Chapter 2006 Summer Conference

Oct. 19-20, 2006	Gainesville, FL	070025

Fee: $395
SWANA: TS 1.9, LDR 0.75 FBPE PDH: 19.0
Topics include: Brief History of Solid Waste Management in U.S., Regulatory Aspects, The Modern Transfer Station and MRF Facility, Siting, Leachate and Stormwater, Ventilation and Odor Control, Waste Control, Operating Guidelines, Employee Health and Safety, Contingency Planning, Financial Responsibility, Monitoring Site Development and Efficiency, and Facility closure.
7:30 a.m. - 5:30 p.m. daily
Instructor: Chris Kohl, Kohl Consulting, Inc.

24-Hour Initial Training Course for Landfill Operators (Class I, II, III and C&D Sites)

Feb. 22-24, 2006	Gainesville, FL	060664
June 21-23, 2006	Gainesville, FL	060664-1
*Nov. 15-17, 2006	Tampa, FL	070723

Fee: $475
SWANA: 20.0 I II III FBPE PDH: 24.0
Topics include: History of Solid Waste Management in US, Basics of Landfill Design and Operations, Regulatory Aspects of Solid Waste Management, Solid Waste Facility Siting, Leachate and Stormwater, Gas and Odor, Groundwater Monitoring, Waste Control, Non-Routine Operations, Employee Health and Safety, Contingency Planning, Monitoring Site Development and Efficiency, Financial Responsibility and Closure and Post Closure.
Day One and Two: 8:00 a.m. - 5:30 p.m.
Day Three: 7:30 a.m. - 4:00 p.m.
Instructor: Chris Kohl, Kohl Consulting, Inc.

Continuing Education	I II III	C&D	Transfer	MRF	Spotter
SWANA-MOLO	16	16	8	8	
C&D Short Course	16	16			
19 Hour TS/MRF	10	10	8	8	4
24 Hour I, II, III/C&D	16	16			

Course Information

- These courses are approved as initial training courses.
- These courses are approved for continuing education contact hours.
- Participants must be in attendance for the entire course to receive Florida approved contact hours or CEUs and a certificate of attendance.
- Participants are on their own for lunch.
- Registration deadline is two weeks prior to the course.
- Participants must complete the course and pass written exam with 70% proficiency.
- For course agendas, and locations visit www.treeo.ufl.edu/sw.

Space is available. Register now at www.treeo.ufl.edu.

SWANA-MOLO Exam only contact Dawn Jenkins at 352/392-9570 ext. 227.

*Presented in cooperation with SWANA-Florida Chapter.

Course Locations and Accommodations

You are responsible for arranging your accommodations. Special rates are available at the hotels listed. To receive a special rate, reservations must be made at least four weeks prior to the course date, and you must identify yourself as a participant of one of these UF/TREEO courses. Rates subject to change with out notice.

Gainesville: Location: 3900 SW 63rd Blvd., Gainesville, FL 32608, 352/392-9570, www.treeo.ufl.edu
Accommodations: Cabot Lodge, 3726 SW 40th Blvd. (I-75 & SR 24), Gainesville, FL 32608, 352/375-2400, 1-800-843-8735, www.cabotlodge.com/gainesville, $61 single, $66 double.o receive this rate, you must mention UF/TREEO and make your reservation.
Naples: Location and Accommodations: Ritz Carlton Golf Resort, 2600 Tiburon Drive, Naples, FL, 34109, 1-800-241-3333, $105 per night. To receive this rate, you must mention SWANA and make your reservation prior to June 28, 2006.
Tampa: Location and Accommodations: Holiday Inn Express Hotel and Suites, 8319 Galbraith Road, Tampa, FL 33647, 813/910-7171, $ single or double. To receive this rate, you must mention SWANA and make your reservation prior to April 17, 2006.

Certificate and CEUs

Certificate of attendance and continuing education units (CEUs or hours) will be issued. Must be in attendance for entire course to receive certificate or CEUs.

General Information

Course: Contact - Dawn Jenkins, 352/392-9570, ext. 227 or djenkins@treeo.ufl.edu
Registration: Contact - Janet Touchton, 352/392-9570, ext. 212 or jtouchton@treeo.ufl.edu
Confirmation letters with map and directions are emailed, if available, or faxed to those registered two weeks prior to the course date.

To Register

Online: Visit www.treeo.ufl.edu and click on "Solid Waste." Registration by credit card; Visa, MasterCard, or American Express accepted online via a secure website'.
Fax or Mail: To pay by Check or Purchase Order, return registration form with payment, to the address listed at the bottom of the form, or fax your registration form to: 352/392-6910, 24 hrs. Government agencies may pay with a purchase order.
Fed ID# 59-6002052

Services for Persons with Disabilities

Persons with disabilities who require special accommodations should contact Janet Touchton at 352/392-9570, ext. 212, at least 10 days prior to the course so that proper consideration can be given to the request.

Cancellation Policy

If you cannot attend, written notification must be received at least two working days prior to the course. You may transfer to another course, send a substitute, or receive a refund. In the event that a course is canceled, UF/TREEO is not responsible for non-refundable travel fares or lodging deposits.

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Online registration for this course is available at **www.treeo.ufl.edu.** You may fax your completed registration form to 352/ 392-6910.

REGISTRATION FORM 06-102

☐ C&D Debris Landfills: A Short Course for Operators - 24 Hours	May 17-19, 2006	Tampa, FL	060617 $465
☐ SWANA - Manager of Landfill Operations [MOLO℠]	Aug. 29-Sept. 1, 2006	Gainesville, FL	070022 $_____
☐ 19-Hour Initial Training Course for TS Operators and MRF	Jan. 26-27, 2006	Gainesville, FL	050661-1 $395
☐ 19-Hour Initial Training Course for TS Operators and MRF	Apr. 13-14, 2006	Gainesville, FL	050661-2 $395
☐ 19-Hour Initial Training Course for TS Operators and MRF	July 27-28, 2006	Naples, FL	070724 $395
☐ 19-Hour Initial Training Course for TS Operators and MRF	Oct. 19-20, 2006	Gainesville, FL	070025 $395
☐ 24 Hour Initial Training Course for Operators	Feb. 22-24, 2006	Gainesville, FL	060664 $475
☐ 24 Hour Initial Training Course for Operators	June 21-23, 2006	Gainesville, FL	060664-1 $475
☐ 24 Hour Initial Training Course for Operators	Nov. 15-17, 2006	Tampa, FL	070723 $475

NAME: _____

POSITION: _____ COMPANY: _____

MAILING ADDRESS: _____ CITY: _____ STATE: ____ ZIP: _____

BUSINESS PHONE: _____ FAX: _____ **E-MAIL: _____

** For confirmation and future TREEO course information.

Completed registration form and payment are needed to process your registration. Make payment in U.S. currency to: UNIVERSITY OF FLORIDA. Mail registration form and payment to:

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3900 SW 63RD BLVD.
GAINESVILLE, FL 32608-3848

Register one person per form. Photocopy if more forms are needed.

FEE (Check appropriate boxes): Fed ID#59-6002052

☐ Gov't. Purchase Order #: _____

☐ Check Enclosed in the amount of $ _____

If paying by check or purchase order you may fax: 352/392-6910, 24 hrs.

Registration by credit card; Visa, MasterCard, or American Express accepted online via a secure website: www.treeo.ufl.edu, click on 'Solid Waste'.

Florida DEP Solid Waste Management Facility Operator Transcript

Certificate: **Class I, II, III Landfill Operator**
Track: **Standard Landfill Track**

Initial Date: **05/06/04**
Expiration Date: **05/05/10**

Status: **Current**

Brooker , Daniel
Waste Management @ Orlando Transfer
4986 LB McLeod Rd
Orlando, FL 32824

Phone: (407) 481-2530
Fax: (407) 839-8400

Time Period: **05/06/04 - 05/05/07**

Course #	Course Completed	Course Provided By	Completion Date	Hours
195	24-Hour Initial Training Course for Landfill Operators (Class I, II, III and C&D Sites)	Kohl Consulting, Inc.	05/06/04	24
196	16-Hour Initial Training Course for Transfer Station Operators	Kohl Consulting, Inc.	05/06/04	16
229	Landfill Compaction Training School-8 hours	Caterpilla & Ringhaver Equipment	11/08/05	8

Total hours toward Continuing Education: 48

Continuing Education (CE) Minimum 3 Year Requirement:
I,II,III/C&D-16 hours; TS/MRF-8 hours; Spotter-4 hours
Expired: If you have exceeded the 3 year training period without completing the minimum number of CE, you must start over by taking an approved initial course and pass exam.

Initial hours are not counted toward continuing education.
An Initial course can be taken as a CE course only if it was not taken as the operator's or spotter's initial training.
No CE credit will be given for the same course taken within the same 3-year period.

If you have any questions, please contact djenkins@treeo.ufl.edu or jtouchton@treeo.ufl.edu or call 352.392.9570 extensions 227 or 212.

Last Updated: 9/21/2004 10:05:16 AM
Date Printed: Thursday, January 12, 2006

Florida DEP Solid Waste Management Facility Operator Transcript

Certificate: **Transfer Station Operator**
Track: **Transfer Station**

Initial Date: **05/06/04**
Expiration Date: **05/05/10**

Status: **Current**

Brooker , Daniel
Waste Management @ Orlando Transfer
4986 LB McLeod Rd
Orlando, FL 32824

Phone: (407) 481-2530
Fax: (407) 839-8400

Time Period: **05/06/04 - 05/05/07**

Course #	Course Completed	Course Provided By	Completion Date	Hours
196	16-Hour Initial Training Course for Transfer Station Operators	Kohl Consulting, Inc.	05/06/04	16

Total hours toward Continuing Education: 16

Continuing Education (CE) Minimum 3 Year Requirement:
I,II,III/C&D-16 hours; TS/MRF-8 hours; Spotter-4 hours
Expired: If you have exceeded the 3 year training period without completing the minimum number of CE, you must start over by taking an approved initial course and pass exam.

Initial hours are not counted toward continuing education.
An Initial course can be taken as a CE course only if it was not taken as the operator's or spotter's initial training.
No CE credit will be given for the same course taken within the same 3-year period.

If you have any questions, please contact djenkins@treeo.ufl.edu or jtouchton@treeo.ufl.edu or call 352.392.9570 extensions 227 or 212.

Last Updated: 9/21/2004 10:05:16 AM
Date Printed: Thursday, January 12, 2006

Florida DEP Solid Waste Management Facility Operator Transcript

Certificate: **Class I, II, III Landfill Operator**
Track: **Standard Landfill Track**

Initial Date: **05/05/04**
Expiration Date: **05/04/10**

Status: **Current**

Allison , Dana
Equipment Operator
Waste Management @ Orlando
P O BOX 568245
ORLANDO, FL 32856-8245

Phone: (407) 426-8252
Fax: (407) 426-0345

Time Period: **Prior to Initial Date**

Course #	Course Completed	Course Provided By	Completion Date	Hours
21	SOLID WASTE OPERATORS SHORT SCHOOL	University of Florida - TREEO	11/15/96	0
160	Manager of Landfill Operations (MOLO)	University of Florida - TREEO	02/09/01	0
170	Health & Safety Issues for Solid Waste Management Facilities	Kohl Consulting, Inc.	03/21/03	8

Time Period: **05/05/04 - 05/04/07**

Course #	Course Completed	Course Provided By	Completion Date	Hours
196	16-Hour Initial Training Course for Transfer Station Operators	Kohl Consulting, Inc.	05/06/04	16
195	24-Hour Initial Training Course for Landfill Operators (Class I, II, III and C&D Sites)	Kohl Consulting, Inc.	05/06/04	24
229	Landfill Compaction Training School-8 hours	Caterpilla & Ringhaver Equipment	11/08/05	8

Total hours toward Continuing Education: 48

Hours taken prior to your initial course do not count toward your solid waste training.

Continuing Education (CE) Minimum 3 Year Requirement:
I,II,III/C&D-16 hours; TS/MRF-8 hours; Spotter-4 hours
Expired: If you have exceeded the 3 year training period without completing the minimum number of CE, you must start over by taking an approved initial course and pass exam.

Initial hours are not counted toward continuing education.
An Initial course can be taken as a CE course only if it was not taken as the operator's or spotter's initial training.
No CE credit will be given for the same course taken within the same 3-year period.

If you have any questions, please contact djenkins@treeo.ufl.edu or jtouchton@treeo.ufl.edu or call 352.392.9570 extensions 227 or 212.

Last Updated: 9/21/2004 9:14:05 AM
Date Printed: Thursday, January 12, 2006

Florida DEP Solid Waste Management Facility Operator Transcript

Certificate: **Transfer Station Operator**
Track: **Transfer Station**

Initial Date: **05/06/04**
Expiration Date: **05/05/10**

Status: **Current**

Allison , Dana
Equipment Operator
Waste Management @ Orlando
P O BOX 568245
ORLANDO, FL 32856-8245

Phone: (407) 426-8252
Fax: (407) 426-0345

Time Period: **05/06/04 - 05/05/07**

Course #	Course Completed	Course Provided By	Completion Date	Hours
196	16-Hour Initial Training Course for Transfer Station Operators	Kohl Consulting, Inc.	05/06/04	16

Total hours toward Continuing Education: 16

Continuing Education (CE) Minimum 3 Year Requirement:
I,II,III/C&D-16 hours; TS/MRF-8 hours; Spotter-4 hours
Expired: If you have exceeded the 3 year training period without completing the minimum number of CE, you must start over by taking an approved initial course and pass exam.

Initial hours are not counted toward continuing education.
An Initial course can be taken as a CE course only if it was not taken as the operator's or spotter's initial training.
No CE credit will be given for the same course taken within the same 3-year period.

If you have any questions, please contact djenkins@treeo.ufl.edu or jtouchton@treeo.ufl.edu or call 352.392.9570 extensions 227 or 212.

Last Updated: 9/21/2004 9:14:05 AM
Date Printed: Thursday, January 12, 2006

APPENDIX E

CLOSURE AND LONG-TERM CARE COST ESTIMATE

DEP Form # 62-701.900(28)
Form Title Financial Assurance Cost Estimate Form
Effective Date 05-27-01

DEP Application No. _____
(Filled by DEP)

Florida Department of Environmental Protection

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, FL 32399-2400

FINANCIAL ASSURANCE COST ESTIMATE FORM

Date: January 2006 Date of DEP Approval: _____

I. GENERAL INFORMATION:

Facility Name: Keene Road South Class III Landfill WACS or GMSID #: 87081

Permit / Application No.: SC48-0165969-001 & SO48-0165969-002 Expiration Date: 1/22/2006

Facility Address: 230 West Keene Road, Apopka, Florida 32703

Permittee: Waste Management Inc. of Florida

Mailing Address: 255 West Keene Road, Apopka, Florida 32703

Latitude: 28 38 25 Longitude: 81 30 42 or UTM: _____

Solid Waste Disposal Units Included in Estimate:

Phase / Cell	Acres	Date Unit Began Accepting Waste	Design Life of Unit From Date of Initial Receipt of Waste
Cell 1	8.8		10.4 months
Cell 2	10.2		12.0 months
Cell 3	9.5		11.2 months
Cell 4	9.2		10.8 months
	37.7		

Total Landfill Acreage included in this estimate. 37.7 Closure 37.7 Long-Term Care

Type of landfill: _____ Class I ✓ Class III _____ C&D Debris

II. TYPE OF FINANCIAL ASSURANCE DOCUMENT (Check Type)

_____ Letter of Credit*

✓ Insurance Certificate

_____ Surety Bond*

_____ Escrow Account

_____ Trust Fund Agreement

_____ Financial Test

*Indicates mechanisms that require use of a Standby Trust Fund Agreement

Northwest District
160 Governmental Center
Pensacola, FL 32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste. B200
Jacksonville, FL 32256-7590
904-448-4300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-894-7555

Southwest District
3804 Coconut Palm Dr.
Tampa, FL 33619
813-744-6100

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33901-3881
941-332-6975

Southeast District
400 North Congress Ave.
West Palm Beach, FL 33401
561-681-6600

III. ESTIMATE ADJUSTMENT

40 CFR Part 264 Subpart H as adopted by reference in Rule 62-701.630, Florida Administrative Code sets forth the method of annual cost estimate adjustment. Cost estimates may be adjusted by using an inflation factor or by recalculating the maximum costs of closure in current dollars. Select one of the methods of cost estimate adjustment below.

☐ **(a) Inflation Factor Adjustment**

Inflation adjustment using an inflation factor may only be made when a Department approved closure cost estimate exists and no changes have occurred in the facility operation which would necessitate modification to the closure plan. The inflation factor is derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its survey of Current Business. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year. The inflation factor may also be obtained from the Solid Waste Financial Coordinator at (850)-245-8732.

This adjustment is based on the Department approved closure cost estimate dated: _____

Latest Department Approved Closure Cost Estimate:		Current Year Inflation Factor		Inflation Adjusted Closure Cost Estimate:
_____	X	_____	=	$0.00

This adjustment is based on the Department approved long-term care cost estimate dated: _____

Latest Department Approved Annual Long-Term Care Cost Estimate:		Current Year Inflation Factor		Inflation Adjusted Annual Long-Term Care Cost Estimate:
_____	X	_____	=	$0.00

Number of Years of Long Term Care Remaining: X _____

Inflation Adjusted Long-Term Care Cost Estimate: = 0.00

☑ **(b) Recalculate Estimates** (see section V)

IV. CERTIFICATION BY ENGINEER

This is to certify that the Financial Assurance Cost Estimates pertaining to the engineering features of the this solid waste management facility have been examined by me and found to conform to engineering principals applicable to such facilities. In my professional judgement, the Cost Estimates are a true, correct and complete representation of the financial liabilities for closing and long-term care of the facility and comply with the requirements of Florida Administrative Code (F.A.C.), Rule 62-701.630 and all other Department of Environmental Protection rules and statutes of the State of Florida. It is understood that the Financial Assurance Cost Estimates shall be submitted to the Department annually, revised or adjusted as required by Rule 62-701.630(4), F.A.C.

Signature of Engineer

William J. Edwards, P.E., Senior Eng.
Name & Title (please type)

60876 1/18/06
Florida Registration Number (affix seal) &Date

531 Versailles Dr., Maitland, FL 32751
Mailing Address

(407) 475-9163
Telephone Number

Signature of Owner/Operator

R. David McConnell, Vice President
Name & Title (please type)

(770) 805-3345
Telephone Number

V. RECALCULATE ESTIMATED CLOSING COST

For the time period in the landfill operation when the extent and manner of its operation makes closing **most expensive**.

***** Third Party Estimate / Quote must be provided for each item***

**** Costs must be for a third party providing all material and labor**

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
1. Proposed Monitoring Wells	(Do not include wells already in existence.)			
	EA			$0.00
2. Slope and Fill (bedding layer between waste and barrier layer):				
Excavation	CY			$0.00
Placement and Spreading	CY	30,411	$1.50	$45,616.50
Compaction	CY	30,411	$1.50	$45,616.50
Off-Site Material	CY	30,411	$3.50	$106,438.50
Delivery	CY	30,411	$3.00	$91,233.00
		Subtotal Slope and Fill:		$288,904.50
3. Cover Material (Barrier Layer):				
Off-Site Clay	CY	91,234	$20.00	$1,824,680.00
Synthetics - 40 mil	SY			$0.00
Synthetics - GCL	SY			$0.00
Synthetics - Geonet	SY			$0.00
Synthetics - Other	SY			$0.00
		Subtotal Barrier Layer Cover:		$1,824,680.00
4. Top Soil Cover:				
Off-Site Material	CY	91,234	$3.50	$319,319.00
Delivery	CY	91,234	$3.00	$273,702.00
Spread	CY	91,234	$1.50	$136,851.00
		Subtotal Top Soil Cover:		$729,872.00

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
5. Vegetative Layer				
Sodding	SY	200,000	$2.00	$400,000.00
Hydroseeding	AC	17	$2,000.00	$34,400.00
Fertilizer	AC	57	$750.00	$42,750.00
Mulch	AC			$0.00
Other	SY	64	$100.00	$6,400.00
			Subtotal Vegetative Layer:	**$483,550.00**
6. Stormwater Control System:				
Earthwork	CY	50,000	$5.00	$250,000.00
Grading	SY			$0.00
Piping	LF	2,562	$120.00	$307,440.00
Ditches	LF			$0.00
Berms	LF			$0.00
Control Structures	EA	16	$3,000.00	$48,000.00
Other	LS	7	$25,000.00	$175,000.00
			Subtotal Stormwater Controls:	**$780,440.00**
7. Gas Controls: Passive				
Wells	EA	6	$1,000.00	$6,000.00
Pipe and Fittings	LF			$0.00
Monitoring Probes	EA			$0.00
NSPS/Title V requirements	LS			$0.00
			Subtotal Passive Gas Control:	**$6,000.00**

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
8. Gas Control: Active Extraction				
Traps	EA			$0.00
Sump	EA			$0.00
Flare Assembly	EA			$0.00
Flame Arrestor	EA			$0.00
Mist Eliminator	EA			$0.00
Flow Meter	EA			$0.00
Blowers	EA			$0.00
Collection System	LF			$0.00
Other (describe)				$0.00
			Subtotal Active Gas Extraction:	**$0.00**
9. Security System:				
Fencing	LF			$0.00
Gate(s)	EA			$0.00
Sign(s)	EA	5	$100.00	$500.00
			Subtotal Security System:	$500.00
10. Engineering:				
Closure Plan report	LS			$30,000.00
Certified Engineer	LS			$5,000.00
NSPS/Title V Air Permit	LS			
Final Survey	LS			$5,000.00
Certification of Closure	LS			$6,000.00
Other (detail) Closure Design				$100,000.00
			Subtotal Engineering:	**$146,000.00**

11. Professional Services

	Contract Management		Quality Assurance		
	Hours	LS	Hours	LS	Total
P.E. Supervisor	60	$6,000.00	40	$4,000.00	$10,000.00
On-Site Engineer	90	$6,750.00	60	$4,500.00	$11,250.00
Office Engineer	150	11,250.0	150	11,250.0	$22,500.00
On-Site Technician			1,200	60,000.0	$60,000.00
Other (explain)					$0.00

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
Quality Assurance Testing	LS	1	150,000.0	$150,000.00

Subtotal Professional Services: **$253,750.00**

Subtotal of 1-11 Above: $4,513,696.50

12. Contingency — % of Total (example. enter .1 for 10%): 10%

Closing Cost Subtotal: 4,965,066.15

13. Site Specific Costs (explain)

Mobilization	$50,000.00
Waste Tire Facility	
Materials Recovery Facility	
Special Wastes	
Leachate Management System Modification	
Other	

Subtotal Site Specific Costs: $50,000.00

TOTAL CLOSING COSTS **$5,015,066.15**

VI. ANNUAL COST FOR LONG-TERM CARE

(Check Term Length)

_____ 5 Years _____ 20 Years ✓ 30 Years _____ Other

See 62-701.600(1)a.1., 62-701.620(1), 62-701.630(3)a. and 62-701.730(11)b. F.A.C. for required term length. For landfills certified closed and Department accepted, enter the remaining long-term care length as "Other" and provide years remaining.

**** Third Party Estimate / Quote must be provided for each item**
**** Costs must be for a third party providing all material and labor**

All items must be addressed. Attach a detailed explanation for all items marked not applicable (N/A)

Description	Sampling Frequency (events/yr.)	Number of Wells	$ / Well / Event	$ / Year
1. Groundwater Monitoring (62-701.510(6), and (8)(a))				
Monthly	12			$0.00
Quarterly	4			$0.00
Semi-Annual	2	18	$1,500.00	$54,000.00
Annual	1			$0.00
			Subtotal Groundwater Monitoring:	$54,000.00
2. Surface Water Monitoring (62-701.510(4), and (8)(b)				
Monthly	12			$0.00
Quarterly	4			$0.00
Semi-Annual	2			$0.00
Annual	1			$0.00
			Subtotal Surface Water Monitoring:	$0.00
3. Gas Monitoring				
Monthly	12			$0.00
Quarterly	4	14	$150.00	$8,400.00
Semi-Annual	2			$0.00
Annual	1			$0.00
			Subtotal Gas Monitoring:	$8,400.00

Description	Sampling Frequency (events/yr.)	Number of Locations	$/Location/Event	$ / Year
4. Leachate Monitoring (62-701.510(5), (6)(b) and 62-701.510(8)(c)				
Monthly	12			$0.00
Quarterly	4			$0.00
Semi-Annual	2			$0.00
Annual	1			$0.00
Other				$0.00
			Subtotal Leachate Monitoring:	$0.00

DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COST
5. Leachate Collection/Treatment Systems Maintenance				
Maintenance				
Collection Pipes	LF			$0.00
Sumps, Traps	EA			$0.00
Lift Stations	EA			$0.00
Cleaning	LS			$0.00
Tanks	EA			$0.00
Impoundments				
Liner Repair	SY			$0.00
Sludge Removal	CY			$0.00
Aeration Systems	CY			$0.00
Floating Aerators	EA			$0.00
Spray Aerators	EA			$0.00
Disposal				
Off-site (Include Transportation and Disposal)	1000 gallon			$0.00
				$0.00

6. Leachate Collection/Treatment Systems Operation

Operation		Hours	$/Hour	Total
P.E. Supervisor	HR			$0.00
On-Site Engineer	HR			$0.00
Office Engineer	HR			$0.00
OnSite Technician	HR			$0.00
Materials	LS			

Subtotal Leachate Collection/Treatment System Maintenance & Operation: $0.00

7. Maintenance of Groundwater Monitoring Wells

Monitoring Wells	LF			$0.00
Replacement	EA	1	$1,000.00	$1,000.00
Abandonment	EA			$0.00

Subtotal Groundwater Monitoring Well Maintenance: $1,000.00

DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COST

8. Gas System Maintenance

Piping, Vents	LF	1	$600.00	$600.00
Blowers	EA			$0.00
Flaring Units	EA			$0.00
Meters, Valves	EA			$0.00
Compressors	EA			$0.00
Flame Arrestors	EA			$0.00
Operation	LS			

SubTotal Gas System: $600.00

9. Landscape

Mowing	AC	38	$200.00	$7,540.00
Fertilizer	AC			$0.00

Subtotal Landscape Maintenance: $7,540.00

DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COST
10. Erosion Control & Cover Maintenance				
Sodding	SY	5,000	$2.00	$10,000.00
Regrading	AC	1	$5,000.00	$5,000.00
Liner Repair	SY			$0.00
Clay	CY	2,420	$20.00	$48,400.00
		Subtottal Erosion Control and Cover Maintenance:		$63,400.00
11. Storm Water Management System Maintenance				
Conveyance Maintenance	LS			$2,500.00
		Subtotal Storm Water System Maintenance:		$2,500.00
12. Security System Maintenance				
Fences	LF	100	$5.00	$500.00
Gate(s)	EA	1	$150.00	$150.00
Sign(s)	EA	5	$100.00	$500.00
		Subtotal Security System:		$1,150.00
13. Utilities	LS			$2,000.00
14. Administrative		Hours	$/Hour	Total
P.E. Supervisor	HR	6	$95.00	$570.00
On-Site Engineer	HR	18	$75.00	$1,350.00
Office Engineer	HR	18	$75.00	$1,350.00
OnSite Technician	HR			$0.00
Other (explain)				$0.00
		Subtotal Administrative:		$3,270.00
15. Contingency	% of Total			10%
	$143,860.00	Subtotal Contingency:		$14,386.00

16. Site Specific Costs (explain)	UNIT COST	
	LS	
	LS	
	LS	

ANNUAL LONG-TERM CARE COST ($/Year):	$158,246.00
NUMBER OF YEARS OF LONG-TERM CARE	30.00
TOTAL LONG-TERM CARE COST ($)	$4,747,380.00