



## Florida Department of Environmental Protection

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, FL 32399-2400

Southwest District

DEP Form #	62-701.900(28)
Form Title	Financial Assurance Cost Estimate Form
Effective Date	05-27-01
DEP Application No.	

DEPT. OF Environmental Protection  
(Filed by DEP)  
**SEP 01 2009**

### FINANCIAL ASSURANCE COST ESTIMATE FORM

Date: September 1, 2009

Date of FDEP Approval: \_\_\_\_\_

#### I. GENERAL INFORMATION:

Facility Name: Hardee County Landfill WACS or GMSID #: SWD/25/40612  
Permit / Application No.: 38414-011-SO/01 Expiration Date: May 12, 2013  
Facility Address: 685 Airport Road, Wauchula, FL 33873  
Permittee: Hardee County Solid Waste Department  
Mailing Address: 685 Airport Road, Wauchula, FL 33873

Latitude: 27°34'17" N Longitude: 81°46'58" W 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
Phase I	13.6	1983	24
Phase II Section I	5	2008	5

Total Landfill Acreage included in this estimate. 18.6 Closure \_\_\_\_\_ Long-Term Care \_\_\_\_\_

Type of Landfill: X Class I \_\_\_\_\_ Class III \_\_\_\_\_ C&D Debris \_\_\_\_\_

#### II. TYPE OF FINANCIAL ASSURANCE DOCUMENT (Check Type)

\_\_\_\_ Letter of Credit \* \_\_\_\_\_ Insurance Certificate  
\_\_\_\_ Performance Bond \* X Escrow Account  
\_\_\_\_ Guaranty Bond \* \_\_\_\_\_ Trust Fund Agreement

\*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)-488-0300.

This adjustment is based on the Department approved closure cost estimate dated: \_\_\_\_\_

Latest Department Approved Closure Cost Estimate:	x	Current Year Inflation Factor	=	Inflation Adjusted Closure Cost Estimate:
_____		_____		_____

This adjustment is based on the Department approved long-term care cost estimate dated: \_\_\_\_\_

Latest Department Approved Annual Long-Term Care Cost Estimate:	x	Current Year Inflation Factor	=	Inflation Adjusted Annual Long-Term Care Cost Estimate
_____		_____		_____

Number of Years of Long Term Care Remaining: \_\_\_\_\_ x \_\_\_\_\_

Inflation Adjusted Long-Term Care Cost Estimate: \_\_\_\_\_ = \_\_\_\_\_

☒ (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

Shane R. Fischer, P.E., Project Manager  
Name & Title (please type)

58026  
Florida Registration Number (affix seal)

SCS Engineers  
4041 Park Oaks Blvd., Suite 100  
Tampa, Florida 33610  
Mailing Address

813-621-0080  
Telephone Number

Signature of Owner/Operator

Teresa Carver, Solid Waste Director  
Name & Title (please type)

(863)773-5089  
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	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Subtotal Monitoring Wells:				<u>\$0.00</u>
2. Slope and Fill (Bedding Layer Between Waste and Barrier Layer)				
Excavation	CY	<u>0</u>	<u>0.00</u>	<u>\$0.00</u>
Placement and Spreading	CY	<u>29,922</u>	<u>1.11</u>	<u>\$33,213.42</u>
Compaction	CY	<u>29,922</u>	<u>0.64</u>	<u>\$19,150.08</u>
Off-Site Material	CY	<u>29,922</u>	<u>3.42</u>	<u>\$102,333.24</u>
Delivery	CY	<u>29,922</u>	<u>3.50</u>	<u>\$104,727.00</u>
Subtotal Slope and Fill:				<u>\$259,423.75</u>
3. Cover Material (Barrier Layer)				
Off-Site Clay	CY	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Synthetics - 40 mil	SY	<u>56,254</u>	<u>3.83</u>	<u>\$215,171.55</u>
Synthetics - GCL	SY	<u>1,294</u>	<u>5.40</u>	<u>\$6,987.60</u>
Synthetics - Geonet	SY	<u>91,449</u>	<u>5.13</u>	<u>\$469,133.51</u>
Biplanar Geocomposite	SY	<u>35,195</u>	<u>4.49</u>	<u>\$158,060.75</u>
Synthetics - Other 60-mil	SY			
Subtotal Barrier Layer Cover:				<u>\$849,353.41</u>
4. Top Soil Cover				
Off-Site Material	CY	<u>60,966</u>	<u>9.72</u>	<u>\$592,589.58</u>
Delivery	CY	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Spread and Compact	CY	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Subtotal Top Soil Cover:				<u>\$592,589.58</u>

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
5. Vegetative Layer				
Sodding	SY	91,450	2.16	\$197,532.00
Hydroseeding	AC	0.00	0.00	\$0.00
Fertilizer	AC	0.00	0.00	\$0.00
Mulch	AC	0.00	0.00	\$0.00
Other	SY	0.00	0.00	\$0.00
Subtotal Vegetative Layer:				\$197,532.00
6. Stormwater Control System				
Earthwork	CY	3,160	14.75	\$46,610.00
Erosion Control	SF	0	0.00	\$0.00
Piping	LS	1.00	28,432.27	\$28,432.27
Ditches	LS	0.00	0.00	\$0.00
FDOT Structures	EA	4.00	2,987.25	\$11,949.00
Other	LS	1.00	14,796.48	\$14,796.48
Subtotal Stormwater Controls:				\$101,787.75
7. Gas Controls: Passive				
Wells	VF	693	114.75	\$79,521.75
Horizontal Collectors	LF	3603	39.25	\$141,417.75
Monitoring Probes	EA	0.00	0.00	\$0.00
NSPS/Title V requirements	LS	0.00	0.00	\$0.00
Subtotal Passive Gas Control:				\$220,939.50

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
8. Gas Control: Active Extraction				
Traps	EA	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Sump	EA	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Flare Assembly	EA	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Flame Arrestor	EA	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Mist Eliminator	EA	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Flow Meter	EA	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Blowers	EA	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Collection System	LF	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Other (describe)		<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Subtotal Active Gas Extraction:				<u>\$0.00</u>

#### 9. Security System

Fencing	LF	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Gate(s)	EA	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Sign(s)	EA	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Subtotal Security System:				<u>\$0.00</u>

#### 10. Engineering

(Includes separate closure activities for Phase I and Phase II Section I)

Closure Plan report	LS	<u>1.00</u>	<u>267,542.00</u>	<u>\$267,542.00</u>
Certified Engineer	LS	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
NSPS/Title V Air Permit	LS	<u>0.00</u>	<u>0.00</u>	<u>\$0.00</u>
Final Survey	LS	<u>1.00</u>	<u>21,952.00</u>	<u>\$21,952.00</u>
Certification of Closure	LS	<u>1.00</u>	<u>37,122.00</u>	<u>\$37,122.00</u>
Other (detail) (Bidding Services)	LS	<u>1.00</u>	<u>33,802.00</u>	<u>\$33,802.00</u>
Subtotal Engineering:				<u>\$360,418.00</u>

11. Professional Services

(Includes separate closure activities for Phase I and Phase II Section I)

	Contract Management		Quality Assurance		TOTAL
	Hours	LS	Hours	LS	
P.E. Supervisor	548	83,120.64	252	36,880.20	\$120,000.84
On-Site Engineer	1200	105,600.00	0	0.00	\$105,600.00
Office Engineer	478	44,195.88	170	19,150.50	\$63,346.38
On-Site Technician	0	0.00	1200	105,600.00	\$105,600.00
Administrative	80	4,400.00	40	2,200.00	\$6,600.00
Reimbursables	1	5,534.00	1	104,348.00	\$109,882.00

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
Quality Assurance Testing/Labor	LS	1	46,500.00	\$46,500.00

Subtotal Professional Services: \$557,529.22

**Subtotal of 1-11 Above: \$3,139,573.21**

12. Contingency

% of Total: 10%

**Closing Cost Subtotal: \$3,453,530.53**

13. Site Specific Costs (explain)

Waste Tire Facility	\$1,200.00
Materials Recovery Facility	\$16,300.00
Household Hazardous Wastes	\$12,100.00
Other	\$0.00

Subtotal Site Specific Costs: \$29,600.00

**TOTAL CLOSING COSTS: \$3,483,130.53**

**VI. ANNUAL COST FOR LONG-TERM CARE**

(Check Term Length)

\_\_\_\_\_ 5 years      \_\_\_\_\_ 20 years        X   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	<u>0</u>	<u>0.00</u>	<u>\$0.00</u>
Quarterly	4	<u>0</u>	<u>0.00</u>	<u>\$0.00</u>
Semi-Annual	2	<u>8</u>	<u>760.75</u>	<u>\$12,172.00</u>
Annual	1	<u>0</u>	<u>0.00</u>	<u>\$0.00</u>
Subtotal Groundwater Monitoring:				<u>\$12,172.00</u>
2. Surface Water Monitoring (62-701.510(4), and (8)(b))				
Monthly	12	<u>0</u>	<u>0.00</u>	<u>\$0.00</u>
Quarterly	4	<u>0</u>	<u>0.00</u>	<u>\$0.00</u>
Semi-Annual	2	<u>1</u>	<u>619.00</u>	<u>\$1,238.00</u>
Annual	1	<u>0</u>	<u>0.00</u>	<u>\$0.00</u>
Subtotal Surface Water Monitoring:				<u>\$1,238.00</u>
3. Gas Monitoring				
Monthly	12	<u>0</u>	<u>0.00</u>	<u>\$0.00</u>
Quarterly	4	<u>11</u>	<u>91.36</u>	<u>\$4,020.00</u>
Semi-Annual	2	<u>0</u>	<u>0.00</u>	<u>\$0.00</u>
Annual	1	<u>0</u>	<u>0.00</u>	<u>\$0.00</u>
Subtotal Gas Monitoring:				<u>\$4,020.00</u>

DESCRIPTION	Sampling Frequency (events/yr.)	Number of Wells	\$/Well/Event	\$ / Year
4. Leachate Monitoring (62-701.510(5), (6)(b) and 62-701.510(8)(c))				
Monthly	12	0	0.00	\$0.00
Quarterly	4	0	0.00	\$0.00
Semi-Annual	2	0	0.00	\$0.00
Annual	1	1	967.00	\$967.00
Other	0	0	0.00	\$0.00
Subtotal Leachate Monitoring:				\$967.00

DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COST
5. Leachate Collection/Treatment Systems Maintenance				
Maintenance				
Collection Pipes	LF	0	0.00	\$0.00
Sumps, Traps	EA	0	0.00	\$0.00
Lift Stations	EA	2	627.30	\$1,254.60
Cleaning (Lines and manholes)	LS	0.2	32,695.00	\$6,539.00
Tanks	EA	2	2,352.38	\$4,704.76
Impoundments				\$10,455
Liner Repair	SY	0	0.00	\$0.00
Sludge Removal	CY	0	0.00	\$0.00
Aeration Systems	CY	0	0.00	\$0.00
Floating Aerators	EA	0	0.00	\$0.00
Spray Aerators	EA	0	0.00	\$0.00
Disposal				
Off-site (Include Transportation and Disposal)	LS	1	134,200.00	\$134,200.00



## 6. Leachate Collection/Treatment Systems Operation

Operation		Hours	\$/Hour	Total
P.E. Supervisor	HR	0	0.00	\$0.00
On-Site Engineer	HR	0	0.00	\$0.00
Office Engineer	HR	0	0.00	\$0.00
On-site Technician	LS	0	0.00	\$0.00
Materials	LS	0	0.00	\$0.00
Subtotal Leachate Collection/Treatment System Maintenance & Operation:				\$157,153.36

## 7. Maintenance of Groundwater Monitoring Wells

Monitoring Wells	LS	1	348.00	\$348.00
Replacement	EA	0.2	2,612.00	\$522.40
Abandonment	EA	0	0.00	\$0.00
Subtotal Groundwater Monitoring Well Maintenance:				\$870.40

DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COST
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## 8. Gas System Maintenance

Piping, Vents	LF	0	0.00	\$0.00
Blowers	EA	0	0.00	\$0.00
Flaring Units	EA	0	0.00	\$0.00
Meters, Valves	EA	0	0.00	\$0.00
Compressors	EA	0	0.00	\$0.00
Flame Arrestors	EA	0	0.00	\$0.00
Operation	LS	1	796.00	\$796.00
Subtotal Gas System:				\$796.00

## 9. Landscape

Mowing	AC	18.6	156.82	\$2,916.85
Fertilizer	AC	18.6	209.09	\$3,889.07
Subtotal Landscape Maintenance:				\$6,805.93

DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COST
10. Erosion Control & Cover Maintenance				
Sodding	SY	1,218	2.16	\$2,630.88
Regrading	LS	1	2,500.00	\$2,500.00
Liner Repair	SY	500	4.16	\$2,079.00
Clay	CY	0	0.00	\$0.00
Subtotal Erosion Control and Cover Maintenance:				\$7,209.88
11. Storm Water Management System Maintenance				
Conveyance Maintenance	LS	1	12,114.34	\$12,114.34
Subtotal Storm Water System Maintenance:				\$12,114.34
12. Security System Maintenance				
Fences	LF	50	22.00	\$1,100.00
Gate(s)	EA	0.2	3,525.00	\$705.00
Sign(s)	EA	0	0.00	\$0.00
Subtotal Security System:				\$1,805.00
13. Utilities	LS	1	500.00	\$500.00
14. Administrative				
P.E. Supervisor	LS	1	2,240.00	\$2,240.00
On-Site Engineer	HR	0	0.00	\$0.00
Office Engineer	HR	0	0.00	\$0.00
On-site Technician	LS	1	11,904.00	\$11,904.00
Other (explain)		0	0.00	\$0.00
Subtotal Administrative:				\$14,144.00
15. Contingency	% of Total	\$219,795.91	10%	\$21,979.59
Subtotal Contingency:				\$21,979.59

16. Site Specific Costs (explain)

UNIT COST

_____	<u>LS</u>	<u>\$0.00</u>
_____	<u>LS</u>	<u>\$0.00</u>
_____	<u>LS</u>	<u>\$0.00</u>

**ANNUAL LONG-TERM CARE COST (\$/Year):** **\$241,775.50**

NUMBER OF YEARS OF LONG-TERM CARE 30

**TOTAL LONG-TERM CARE COST (\$):** **\$7,253,264.90**

## SCS ENGINEERS

SHEET \_\_\_\_\_ OF \_\_\_\_\_

CLIENT	HARDEE COUNTY	PROJECT	FINANCIAL ASSURANCE	JOB NO.	09199033-19
SUBJECT	CLOSURE / LONG TERM CARE			BY	DAW
	COST ESTIMATE			CHECKED	elf
				DATE	8/14/09
				DATE	9/1/09

## 1. PROPOSED MONITORING WELLS

— NONE PROPOSED

## 2. SLOPE AND FILL (BEDDING LAYER BETWEEN WASTE AND BARRIER LAYER)

EXCAVATION: NONE PROPOSED

PLACEMENT AND SPREADING:

PH II, SEC. I AREA = 190,378 SF

INTERMEDIATE COVER IS 12" THICK

$$\text{VOLUME} = 190,378 \text{ SF} \times 12 \text{ IN} \times \frac{1 \text{ FT}}{12 \text{ IN}} \times \frac{1 \text{ CY}}{27 \text{ CF}} = 7.05 \text{ CY}$$

REFERENCE (2)

COST FROM BS MEANS 2009, 31 23 23.14 3020

- BACKFILL, STRUCTURAL, DOZER OR F.E. LOADER FROM EXISTING STOCKPILE, NO COMPACTION, 105 H.P., 50' HAUL, COMMON EARTH

\$1.11/cy

## SCS ENGINEERS

SHEET \_\_\_\_\_ OF \_\_\_\_\_

CLIENT HARDEE COUNTY	PROJECT FINANCIAL ASSURANCE	JOB NO. 09199033.19
SUBJECT CLOSURE / LONG TERM CARE COST ESTIMATE	BY DAW CHECKED SRF	DATE 8/14/09 DATE 9/1/09

## 2. SLOPE AND FILL (CONT.)

## - COMPACTION:

QUANTITY = 7.051 CY (SHOWN ON PREVIOUS SHEET)

REFERENCE ③

COST FROM RS MEANS 2009, 31 23 23.23 5040 (\$0.64/cy)

+ COMPACTION, RIDING, VIBRATING ROLLER, 6" LIFTS, 4 PASSES

## - OFF-SITE MATERIAL:

QUANTITY = 7.051 CY (SHOWN ON PREVIOUS SHEET)

REFERENCE ①

COST FROM DESOTO COUNTY ZONE 2 AND ZONE 3  
PARTIAL CLOSURE BID REVIEW ITEM # 007AUG COST PER CY =  $\frac{1.95 + 2.00 + 7.00 + 2.23}{4} = \$3.42/cy$ 

## - DELIVERY

- QUANTITY = 7.051 CY

COST = \$3.50/cy - REFERENCE ②  
TNT FILL DIRT

CLIENT HARDEE COUNTY	PROJECT FINANCIAL ASSURANCE	JOB NO. 09199033.19
SUBJECT CLOSURE / LONG TERM CARE	BY DAW	DATE 8/14/09
COST ESTIMATE	CHECKED JLF	DATE 9/1/09

## 3. COVER MATERIAL (BARRIER LAYER):

OFF-SITE CLAY: NONE PROPOSED

SYNTHETICS - 40 MIL:

PH I "EAST" AREA = 315,909 SF

PH II, SEC I AREA = 190,378 SF

$$506,287 \text{ SF} \times \frac{1 \text{ SY}}{9 \text{ SF}} = 56,254 \text{ SY}$$

COST FROM GSE PRICE QUOTE - REFERENCE (4)

$$\text{PER UNIT COST} = \underset{\text{MATERIAL}}{\$0.225/\text{SF}} + \underset{\text{INSTALL}}{\$0.20/\text{SF}} = \$0.425/\text{SF}$$

$$\$0.425/\text{SF} \times 9 \text{ SF/SY} = \$3.825/\text{SY}$$

SYNTHETICS - GCL: (SEE NEXT SHEET)

SYNTHETICS - GEONET BIPLANAR GEOTEXTILE:

PH I "WEST" AREA = 316,758 SF

PH I "EAST" AREA = 315,909 SF

PH II, SEC I AREA = 190,378 SF

$$\text{TOTAL AREA} = 316,758 + 315,909 + 190,378 = 823,045 \text{ SF}$$

$$823,045 \text{ SF} \times \frac{1 \text{ SY}}{9 \text{ SF}} = 91,449 \text{ SY}$$

COST FROM GSE PRICE QUOTE - REFERENCE (4)

$$\text{PER UNIT COST} = \underset{\text{MATERIAL}}{\$0.420/\text{SF}} + \underset{\text{INSTALL}}{\$0.15/\text{SF}} = \$0.57/\text{SF}$$

$$\$0.57/\text{SF} \times 9 \text{ SF/SY} = \$5.13/\text{SY}$$

## SCS ENGINEERS

SHEET \_\_\_\_\_ OF \_\_\_\_\_

CLIENT HARDEE COUNTY	PROJECT FINANCIAL ASSURANCE	JOB NO. 09199033-19
SUBJECT CLOSURE / LONG TERM CARE	BY DAW	DATE 8/14/09
COST ESTIMATE	CHECKED [Signature]	DATE 9/1/09

## 3. COVER MATERIAL (BARRIER LAYER)

SYNTHETICS - GCL

QUANTITY: TOTAL LENGTH ALONG NORTH, EAST  
AND WEST SIDES OF LANDFILL  
TIMES 5 FT WIDE STRIP

$$\text{TOTAL LENGTH} = 950 + 460 + 920$$

$$= 2330 \text{ LF}$$

$$\text{TOTAL AREA} = 2,330 \times 5 = 11,650 \text{ SF}$$

$$= 129 \text{ SY}$$

$$\text{COST} = \$0.60/\text{SF}$$

$$= \$0.60/\text{SF} \times 95 \text{ SF/SY} = \$5.40/\text{SY}$$

## SCS ENGINEERS

SHEET \_\_\_\_\_ OF \_\_\_\_\_

CLIENT	HARDEE COUNTY	PROJECT	FINANCIAL ASSURANCE	JOB NO.	09199033.19
SUBJECT	CLOSURE / LONG TERM CARE			BY	DAW
COST ESTIMATE				CHECKED	SF
				DATE	8/14/09
				DATE	9/11/09

## 3 COVER MATERIAL (CONT.)

SYNTHETICS - OTHER - 60 MIL:

PH I "WEST" AREA = 316,758 SF

$$316,758 \text{ SF} \times \frac{1 \text{ SY}}{9 \text{ SF}} = 35,195 \text{ SY}$$

COST FROM GSE PRICE QUOTE - REFERENCE (C)  
MATERIAL INSTALL

$$\text{PER UNIT COST} = \$0.299/\text{SF} + \$0.20/\text{SF} = \$0.499/\text{SF}$$

$$\$0.499/\text{SF} \times 9 \text{ SF/SY} = \$4.491/\text{SY}$$



CLIENT HARDEE COUNTY	PROJECT FINANCIAL ASSURANCE	JOB NO. 09199033.R
SUBJECT CLOSURE / LONG TERM CARE COST ESTIMATE	BY DAW	DATE 8/14/09
	CHECKED SAF	DATE 9/1/09

#### 4. TOP SOIL COVER (24" PROTECTIVE SOIL)

PH I "WEST" AREA = 316,758 SF

PH I "EAST" AREA = 315,909 SF

PH II, SEC I AREA = 190,378 SF

TOTAL AREA = 823,045 SF

PROTECTIVE COVER IS 24" THICK

$$\text{VOLUME} = 823,045 \text{ SF} \times 24 \text{ IN} \times \frac{1 \text{ FT}}{12 \text{ IN}} \times \frac{1 \text{ CY}}{27 \text{ CF}} = 60,967 \text{ CY}$$

PROTECTIVE COVER SOIL = 6" TOP SOIL, 18" DRAINAGE  
COSTS INCLUDE ALL DELIVERY, PLACEMENT, SAND  
+ COMPACTION

$$\text{TOTAL VOL TOP SOIL} = 823,045 \text{ SF} \times 0.5 \text{ FT} \times \frac{1 \text{ CY}}{27 \text{ CF}} = 15,241.6 \text{ CY}$$

TOTAL COST TOP SOIL: (FROM DeSOTO COUNTY BID REVIEW)  
ITEM # 012 - REFERENCE ①

$$\text{AVG COST PER CY} = \frac{3.00 + 8.00 + 15.00 + 10.92}{4} = \$10.48/\text{CY}$$

$$\text{TOTAL COST TOP SOIL} = \$10.48/\text{CY} \times 15,241.6 \text{ CY} = \$159,731.97$$

$$\text{TOTAL VOL PROT. COVER} = 823,045 \text{ SF} \times 1.5 \text{ FT} \times \frac{1 \text{ CY}}{27 \text{ CF}} = 45,724.8 \text{ CY}$$

$$\text{AVG COST PER CY} = \frac{16.25 + 8.00 + 18.00 + 9.72}{4} = \$13.00/\text{CY}$$

(FROM DeSOTO CO.)  
ITEM # 011 - REFERENCE ①

$$\text{TOTAL COST PROT COVER} = \$13.00/\text{CY} \times 45,724.8 \text{ CY} = \$594,422.40$$

$$\text{TOTAL COST} = \$159,731.97 + \$594,422.40 = \$754,154.37$$

$$\text{COST PER TOTAL CY} = \frac{\$754,154.37}{60,967 \text{ CY}} = \$12.37/\text{CY}$$

## SCS ENGINEERS

SHEET \_\_\_\_\_ OF \_\_\_\_\_

CLIENT	HARDEE COUNTY	PROJECT	FINANCIAL ASSURANCE	JOB NO.	09199033.19
SUBJECT	CLOSURE / LONG TERM CARE			BY	DAW
COST ESTIMATE				CHECKED	JMF
				DATE	8/14/09
				DATE	9/1/09

## 5. VEGETATIVE LAYER

SODDING:

TOTAL AREA = 823,045 SF x 1 SY = 91,460 SY  
REFERENCE (5) 9 SP

- COST FROM DAKS BROOK SOD - \$0.16 / SF x 9 SP / SY = \$1.44 / SY  
ADD 50% FOR PLACEMENT LABOR - \$1.44 / SY x 1.5 = \$2.16 / SY

HYDROSEEDING: NONE PROPOSED

FERTILIZER: NONE PROPOSED

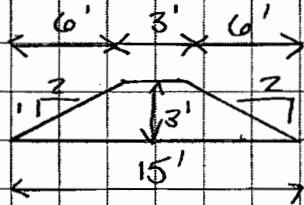
MULCH: NONE PROPOSED

OTHER: NONE PROPOSED

CLIENT HARDEE COUNTY	PROJECT FINANCIAL ASSURANCE	JOB NO. 09199033.19
SUBJECT CLOSURE / LONG TERM CARE	BY DAW	DATE 8/14/09
COST ESTIMATE	CHECKED SPV	DATE 9/11/09

## 6. STORMWATER CONTROL SYSTEM

EARTHWORK:

SEE DETAIL "C" ON  
SH. 14 OF CONSTRUCTION  
PLANS.

$$\text{CROSS-SECTIONAL AREA OF BERM} = \frac{1}{2}(3)(15+3) = 27 \text{ SF}$$

$$\text{LENGTH OF BERM} = 890 + 2,270 = 3,160 \text{ FT}$$

$$\text{TOTAL VOLUME OF BERM} = 27 \times 3,160 = 85,320 \text{ CF}$$

$$= 3,160 \text{ CY}$$

- REFERENCE (2)

- PLACEMENT OF MATERIAL

- COST FROM RS MEANS 2009, 31 23 23.14 3020 \$1.11/CY

- BACKFILL, STRUCTURAL, DOZER OR F.E. LOADER, FROM  
EXISTING STOCKPILE, NO COMPACTION, 105 H.P., 50' HAUL,  
COMMON EARTH

- REFERENCE (3)

- COMPACTION OF MATERIAL

- COST FROM RS MEANS 2009, 31 23 23.23 5040 \$0.64/CY

- COMPACTION, RIDING VIBRATING ROLLER, 6" LIFTS, 4 PASSES

- REFERENCE (1)

FILL COST FROM DESOTO CO B.I.D REVIEW ITEM # 011

$$\text{AVG COST PER CY} = \frac{16.25 + 8.00 + 18.00 + 9.72}{4} = \$13.00/\text{CY}$$

$$\text{TOTAL COST PER CY} = \$13.00/\text{CY} + \$1.11/\text{CY} + \$0.64/\text{CY}$$

$$= \$14.75/\text{CY}$$

CLIENT HARDEE COUNTY	PROJECT FINANCIAL ASSURANCE	JOB NO. 09199033.19
SUBJECT CLOSURE / LONG TERM CARE COST ESTIMATE	BY DAW	DATE 8/14/09
	CHECKED SMF	DATE 9/1/09

## 6. STORMWATER CONTROL SYSTEM (CONT.)

## PIPING:

$$6" \phi \text{ TOTAL LENGTH} = 25 + 25 + 25 + 25 = 100 \text{ LF}$$

$$12" \phi \text{ TOTAL LENGTH} = 20 + 20 + 20 + 20 + 20 + 20 + 20 + 20 + 20 + 20 + 20 + 20 = 240 \text{ LF}$$

$$18" \phi \text{ TOTAL LENGTH} = 135 + 175 + 120 + 15 + 175 + 105 = 825 \text{ LF}$$

$$\text{PH 2, SEC 1 } 18" \phi \text{ LENGTH} = 76 \text{ LF}$$

TOTAL PIPING MAT'L COSTS FROM FET - TAMPA, FL WATERWORKS #044 - REFERENCE (6)

$$- \$20,198.48 - \text{ADD } 76 \text{ LF OF } 18" \phi \text{ PIPE}$$

$$76 \text{ LF} \times \$15.30/\text{FT} = \$1,162.80$$

## PIPE PLACEMENT COSTS

$$\text{TOTAL} = \$21,361.28$$

## - REFERENCE (7)

$$- \text{COST FROM RS MEANS 2009, 33.31 13.20 3120} \quad \$3.70/\text{LF}$$

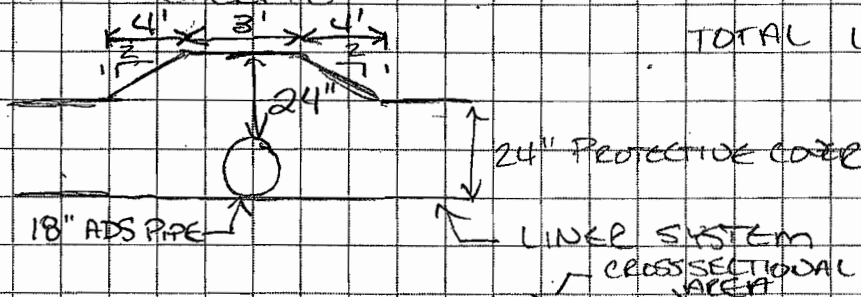
$$- \text{SEWAGE COLLECTION, PLASTIC PIPE, PIPING, NOT} \quad \$0.47/\text{LF}$$

$$\text{INCLUDING EXCAVATION + BACKFILL, HDPE CORRUGATED,} \quad \$4.17/\text{LF}$$

18" DIAMETER

LABOUR  
EQUIP

## PIPE BACKFILL



$$\text{TOTAL LENGTH} = 100 + 240 + 825 + 76$$

$$= 1,241 \text{ LF}$$

$$\text{TOTAL PIPE COST} = 1,241 \times 4.17$$

$$= \$5,174.97$$

$$\text{Backfill Volume} = \frac{1}{2} (2) (3+1) (901) = 12,614 \text{ CF}$$

LENGTH OF DOWNHOLE (18"  $\phi$ )

$$12,614 \text{ CF} \times \frac{1 \text{ CY}}{27 \text{ CF}} = 467 \text{ CY}$$

## - REFERENCE (1)

$$\text{FULL COST FROM DeSoto Co. BID REVIEW ITEM \# 007}$$

$$\text{AUG COST PER CY} = \frac{1.95 + 2.00 + 2.00 + 2.73}{4} = \$3.42/\text{CY}$$

## SCS ENGINEERS

SHEET \_\_\_\_\_ OF \_\_\_\_\_

CLIENT	HARDEE COUNTY	PROJECT	FINANCIAL ASSURANCE	JOB NO.	09199033.19
SUBJECT	CLOSURE / LONG TERM CARE COST ESTIMATE			BY	DAW
				CHECKED	SRF
				DATE	8/14/09
				DATE	9/1/09

## 6. STORMWATER CONTROL SYSTEM (CONT.)

PIPE BACKFILL

- REFERENCE (3)

- COMPACTION

COST FROM RS MEANS 2009, 3 23 23.23 5040 \$0.64/cy

- COMPACTION, RIDING VIBRATING ROLLER, 16" LIFTS, 4 PASSES

COST FOR BACKFILL PLACEMENT + COMPACTION

$$- 467 \text{ CY} \times (0.64/\text{CY} + 3.42/\text{CY}) = \$1,896.02$$

TOTAL COST

$$- 21,361.28 + 5,174.97 + 1,896.02 = \$28,432.27$$



CLIENT	HARDEE COUNTY	PROJECT	FINANCIAL ASSURANCE	JOB NO.	09199033.19
SUBJECT	CLOSURE / LONG TERM CARE			BY	DAW
	COST ESTIMATE			CHECKED	SAJ
				DATE	8/14/09
				DATE	9/1/09

## 6. STORMWATER CONTROL SYSTEM (CONT.)

FDOT STRUCTURES:

FDOT ENERGY DISSIPATORS FDOT INDEX #2604

QUANTITY = 4

COST FROM DESOTO CO. BID REVIEW ITEM #015  
 AVG COST (EA) =  $3,750 + 5,000 + 1,200 + 1,999 = \$2,987.25$   
 - REFERENCE ①  
 OTHER: GFFP

AREA @ STORMWATER PIPE DISCHARGE = 78SF  
 (FROM PLANS) (PER STRUCTURE)

TOTAL AREA = 78SF x 4 = 312SF  
 # of STRUCTURES

COST FROM DESOTO CO. BID REVIEW - REFERENCE ① ITEM #016  
 AVG COST =  $8.00 + 4.00 + 6.00 + 8.15 = \$7.04/SF$   
 TOTAL COST =  $312 \times 7.04 = \$2,196.48$

STORMWATER SWALE TOTAL LENGTH =  $81 + 81 + 101 + 111 + 158 = 532$  FT

STORMWATER SWALE WIDTH = 16 FT

STORMWATER SWALE AREA =  $532 \times 16 = 8,512$  SFTHICKNESS = 8 IN VOLUME =  $8512 \text{ SF} \times 8 \text{ IN} \times \frac{1 \text{ FT}}{12 \text{ IN}} \times \frac{1 \text{ CY}}{27 \text{ CF}} = 210 \text{ CY}$ 

COST FROM RS MEANS 2009, 31.37 13.10 0100 \$60.00/CY

- MACHINE PLACED FOR SLOPE PROTECTION, RIP-RAP + ROCK LINING  
 - RANDOM, BROKEN STONE - REFERENCE ⑦

RIP-RAP TOTAL COST =  $\$60.00/\text{CY} \times 210 \text{ CY} = \$12,600$ TOTAL COST =  $2,196.48 + 12,600 = \$14,796.48$

CLIENT HARDEE COUNTY	PROJECT FINANCIAL ASSURANCE	JOB NO. 09199033.19
SUBJECT CLOSURE/LONG TERM CARE	BY DAW	DATE 8/14/09
COST ESTIMATE	CHECKED JLF	DATE 9/1/09

## 7. GAS CONTROLS : PASSIVE

QUANTITY OF VENTS AND HORIZONTAL COLLECTOR  
VERTICAL COMPONENTS = 19 VENTS

TOTAL WELL DEPTH = 532 VF  
(FROM LFG PLAN,  
SH B OF CONSTRUCTION PLANS)

$$\text{RATIO (PHASE I)} = \frac{19 \text{ VENTS}}{13.6 \text{ AC}} = \frac{1.4 \text{ VENTS}}{\text{AC}}$$

$$\text{PHASE II, SECTION I} = 5 \text{ AC} \times \frac{1.4 \text{ VENTS}}{\text{AC}} = \frac{7 \text{ VENTS}}{\text{AC}}$$

PHASE II, SECTION I TOP EL = 110 FT

PHASE II, SECTION I BOT. EL = 82 FT

$$\text{AVG WELL LENGTH} = 110 \text{ FT} - 82 \text{ FT} - 5 \text{ FT} = 23 \text{ FT}$$

$$\text{TOTAL WELL LENGTH} = 532 + (23)(7) = 693 \text{ VF}$$

COST FROM DESOTO Co. BID REVIEW ITEM # 021a

$$\text{AVG ITEM COST PER LF} = \frac{120.00 + 150.00 + 85.00 + 104.00}{4} = \$114.75/\text{LF}$$

- REFERENCE (D)

HORIZONTAL COLLECTOR - SOLID PIPE

$$\text{PH I TOTAL SOLID LENGTH} = 629 \text{ LF}$$

$$\text{RATIO LENGTH PER ACRE} = \frac{629 \text{ LF}}{13.6 \text{ AC}} = \frac{46.25 \text{ LF}}{\text{AC}}$$

$$\text{TOTAL ACREAGE} = 18.6 \text{ AC}$$

$$\text{TOTAL SOLID LENGTH} = \frac{46.25 \text{ LF}}{\text{AC}} \times 18.6 \text{ AC} = 832.5 \text{ LF} \approx \underline{833 \text{ LF}}$$

## SCS ENGINEERS

SHEET \_\_\_\_\_ OF \_\_\_\_\_

CLIENT	HARDEE COUNTY	PROJECT	FINANCIAL ASSURANCE	JOB NO.	09199033.19
SUBJECT	CLOSURE/LONG TERM CARE			BY	DAW
	COST ESTIMATE			CHECKED	JAF
				DATE	8/14/09
				DATE	9/1/09

## 7. GAS CONTROLS: PASSIVE (CONT.)

HORIZONTAL COLLECTOR - PERF. PIPE

PH I TOTAL PERF LENGTH = 2,025 LF

$$\text{RATIO LENGTH PER ACRE} = \frac{2,025 \text{ LF}}{13.6 \text{ AC}} = 148.9 \frac{\text{LF}}{\text{AC}}$$

TOTAL ACREAGE = 18.6 AC

$$\text{TOTAL PERF LENGTH} = 148.9 \frac{\text{LF}}{\text{AC}} \times 18.6 \text{ AC} = 2769.5 \text{ LF} \approx 2770 \text{ LF}$$

$$\text{TOTAL LENGTH} = 2770 + 833 = 3603 \text{ LF}$$

- REFERENCE ①

COST FROM DESOTO CO BID REVIEW ITEM # 020

$$\text{AUG COST PER LF} = \frac{35.00 + 29.00 + 55.00 + 38.00}{4}$$

$$= \$39.25/\text{LF}$$



## SCS ENGINEERS

SHEET \_\_\_\_\_ OF \_\_\_\_\_

CLIENT	HARDEE COUNTY	PROJECT	FINANCIAL ASSURANCE	JOB NO.	09199033.19
SUBJECT	CLOSURE / LONG TERM CARE			BY	DAW
COST ESTIMATE				CHECKED	SLF
				DATE	8/14/09
				DATE	9/1/09

8. GAS CONTROL: ACTIVE EXTRACTION

NO ACTIVE GAS SYSTEM IS PROPOSED

9. SECURITY SYSTEM

NO CHANGES ARE PROPOSED TO THE EXISTING SECURITY SYSTEM

10. ENGINEERING - COSTS FROM REFERENCE (10)

11. - PROFESSIONAL SERVICES - COSTS FROM REFERENCE (10)

CLIENT	HARDEE COUNTY	PROJECT	FINANCIAL ASSURANCE	JOB NO.	09199033-19
SUBJECT	CLOSURE / LONG TERM CARE COST ESTIMATE			BY	DAW
				CHECKER	SIF
				DATE	8/14/09
				DATE	9/1/09

## 1. GROUNDWATER MONITORING

MONITORING WELLS

MW-1

TOTAL NUMBER OF WELLS = 8

MW-2

MW-4

SAMPLING EVERY 6 MONTHS

MW-5

MW-8

MW-10R

MW-11

MW-12L

COST FROM HARDEE COUNTY INVOICE FROM PBS&amp;J

(INVOICE IS SEMI-ANNUAL)

- REFERENCE (8)

TOTAL COST GROUNDWATER SAMPLING = \$4,536.00

TOTAL COST GROUNDWATER REPORT = \$950.00

TOTAL COST GROUNDWATER ELEVATIONS = \$600.00

NO. OF WELLS = 8

TOTAL COST PER WELL =  $\frac{4,536.00 + 950.00 + 600.00}{8}$ = \$760.75

CLIENT	HARDEE COUNTY	PROJECT	FINANCIAL ASSURANCE	JOB NO.	09199033.19
SUBJECT	CLOSURE / LONG TERM CARE COST ESTIMATE			BY	DAW
				CHECKED	JAF
				DATE	8/14/09
				DATE	9/1/09

## 2. SURFACE WATER MONITORING:

SW-2 SEMI-ANNUAL NO. OF POINTS = 1  
SAMPLING - SEMI-ANNUALLY

COST FROM HARDEE COUNTY INVOICE FROM PBS&J  
(INVOICE IS SEMI-ANNUAL)

- REFERENCE ⑧

TOTAL COST SURFACE WATER SAMPLING = \$619.00

SINCE ONLY 1 SURFACE WATER POINT  
COST IS \$619.00/EA

## 3. GAS MONITORING:

GP-1

GP-2

GP-3

GP-4

GP-5

GP-6

GP-9

GP-10

GP-11

GP-12

GP-13

- 11 TOTAL GAS PROBES

- SAMPLING IS QUARTERLY

COST FROM HARDEE COUNTY INVOICE FROM PBS&J (SEMI-ANNUAL)

- REFERENCE ⑧

TOTAL COST LANDFILL GAS TESTING + REPORTING = \$2,010.00 (SEMI-ANNUAL)

GAS MONITORING COST (QUARTERLY) = \$2,010.00 / 2 = \$1,005.00

COST PER GAS PROBE = \$1,005.00 / 11 WELLS = \$91.36/WELL

## SCS ENGINEERS

SHEET \_\_\_\_\_ OF \_\_\_\_\_

CLIENT	HARDEE COUNTY	PROJECT	FINANCIAL ASSURANCE	JOB NO.	09199033.19
SUBJECT	CLOSURE/LONG TERM CARE			BY	DAW
COST ESTIMATE				CHECKED	SAF
				DATE	8/14/09
				DATE	9/1/09

## 4. LEACHATE MONITORING:

MH-9 WILL BE MONITORED ANNUALLY

NUMBER OF WELLS = 1  
MONITORED ANNUALLYCOST FROM HARDEE COUNTY INVOICE FROM PDS&J  
(ANNUALLY)

- REFERENCE (B)

TOTAL COST LEACHATE ANNUAL SAMPLING = \$967.00

COST PER WELL =  $\frac{\$967.00}{1 \text{ WELL}} = \$967.00/\text{WELL}$

CLIENT	HARDEE COUNTY	PROJECT	FINANCIAL ASSURANCE	JOB NO.	09199033.19
SUBJECT	CLOSURE / LONG TERM CARE			BY	DAW
	COST ESTIMATE			CHECKED	SJF
				DATE	8/14/09
				DATE	9/1/09

## 5. LEACHATE COLLECTION/TREATMENT SYSTEMS MAINTENANCE

- 2 LEACHATE TANKS
- 2 LEACHATE PUMP STATIONS
- CLEAN LINES + MANHOLES 1 PER 5 YRS  
~ 0.2 PER YR
- CLEAN 9 MANHOLES

- 3,372 LF PH. I LEACHATE COLLECTION PIPE
- 10,181 LF PH. 2, SECT 1 GROUNDWATER COLLECTION PIPE
- 2,350 LF PH. 2, SECT 1 LEACHATE COLLECTION PIPE
- 1,300 LF PH. I TOE DRAINS

\* LENGTHS OF PH. 2, SECT 1 LEACHATE COLLECTION PIPE + PH. I TOE DRAIN  
REMAIN EQUAL TO PREVIOUS FINANCIAL ASSURANCE  
COST ESTIMATE.

- CLEANING LINES AND MANHOLES  
COST FROM FLORIDA JET CLEAN QUOTE - \$32,695.00
- REFERENCE (9)

- CLEANING TANKS - \$11,500 - REFERENCE (16)

2008 FDEP INFLATION FACTOR = 1.025

2009 FDEP INFLATION FACTOR = 1.020

COST = \$1,704.75/PER TANK

- CLEANING PUMP STATIONS = \$1,000 PER STATION - REF (16)

$1000 \times 1.025 \times 1.020 = \$1,027.30 / \text{PER PUMP STATION}$

- LEACHATE HAULING & DISPOSAL  
COSTS \$134,200

CLIENT	HALDEE COUNTY	PROJECT	FINANCIAL ASSURANCE	JOB NO.	09199033.19
SUBJECT	CLOSURE / LONG TERM CARE			BY	DAW
	COST ESTIMATE			CHECKER	JF
				DATE	8/14/09
				DATE	9/1/09

## 6. LEACHATE COLLECTION/TREATMENT SYSTEMS OPERATION

- ACCOUNTED FOR IN ADMINISTRATIVE COSTS AND LEACHATE SYSTEM OPERATION.

## 7. MAINTENANCE OF GROUNDWATER MONITORING WELLS

- ASSUME 1 WELL DAMAGED/REPLACED EVERY 5 YRS

COST FROM NODARSE QUOTE - REFERENCE (15)

- MOBILIZATION - \$420.00
- 2" MON. WELL - \$780.00 / EA x 1
- WELL PERMIT - \$75.00
- BOLLARDS - \$84.00 / EA x 3 = \$252.00
- WELL DEO. - \$150.00 / EA x 1
- TURBIDIMETER - \$20.00 / DAY x 1 DAY
- DEPTH TO WATER LEVEL INDICATOR - \$15.00 / DAY x 1 DAY
- SOIL BORINGS - \$12.00 / LF x 20 LF = \$240.00
- SENIOR TECHNICIAN/SCIENTIST - \$60.00 / HR x 9 HRS = \$540.00
- PROFESSIONAL ENGINEER - \$120.00 / HR x 1 HR

TOTAL = \$2,612.00 / 5 YRS

- ASSUME 1 WELL DAMAGED / YR

- MOBILIZATION - \$420.00
- 2" MON. WELL - \$780.00
- SENIOR TECHNICIAN/SCIENTIST - \$60.00 / HR x 9 HRS = \$540.00

TOTAL = \$1,740.00 / 5 YRS = \$348.00 / YR



CLIENT <u>Herde County</u>	PROJECT <u>Financial Assurance</u>	JOB NO. <u>09199039.19</u>
SUBJECT <u>Closure / long term care</u>	BY	DATE
<u>Cost Estimate</u>	CHECKED <u>SAT</u>	DATE <u>9/1/09</u>

### 8. GAS SYSTEM MAINTENANCE

ASSUME ONE PASSIVE VENT WILL NEED TO BE REPAIRED EVERY YEAR

REQUIRES 8 HRS OF TECHNICIAN'S TIME @ \$62/HR  
- REFERENCE (10)

MATERIAL TO REPAIR PASSIVE VENT = ~ \$200  
- (ASSUMED)

VEHICLE = \$100 / DAY  
- REFERENCE (10)

TOTAL COST = (8 HR)(\$62/HR) + \$200 + \$100

$$= \$ 796.00$$

### 9. LANDSCAPE

MOWING - 18.6 AC

+ ASSUME LANDFILL IS MOWED 6 TIMES A YR

TOTAL AREA = 6 x 18.6 AC = 111.6 AC

- REFERENCE (11)

COST FROM RS MEANS 2009, 32 01 90.19 4190 \$0.60/1000SF  
MOWING w/ TRACTOR + ATTACHMENTS, 5 GANG REEL, 12'

TOTAL COST = \$0.60/1000SF x 43560SF/AC x 111.6 AC = \$2916.78  
COST PER AC = \$2916.78/18.6 AC = \$156.82/AC

FERTILIZER - 18.6 AC - ONLY ONCE PER YR

- COST FROM RS MEANS 2009, 32 01 90.13 0180 \$4.38/1000SF  
- REFERENCE (12) 32 01 90.13 0190 \$0.42/1000SF

WATER SOLUBLE, HYDRO SPREAD, 15#/MSF, WEED CONTROL

UNIT COST = \$(4.38 + 0.42)/1000SF x 43560SF/AC = \$209.09/AC

TOTAL COST = \$209.09/AC x 18.6 AC = \$3889.07

CLIENT HARDEE COUNTY	PROJECT FINANCIAL ASSURANCE	JOB NO. 0999033.19
SUBJECT CLOSURE / LONG TERM CARE	BY DAW	DATE 8/14/09
COST ESTIMATE	CHECKED SAF	DATE 9/1/09

## 10. EROSION CONTROL AND COVER MAINTENANCE

- SODDING

(ASSUME  $\sim 1/4$  AC OF EROSION WASHOUT PER YR.)

$$\text{QUANTITY} = 0.25 \text{ AC} \times \frac{43560 \text{ SF}}{\text{AC}} \times \frac{1 \text{ SY}}{9 \text{ SF}} = 1,218 \text{ SY}$$

- REFERENCE (5)

$$\text{COST SOD} = 1,218 \text{ SY} \times \$2.10/\text{SY} = \$2,430.88$$

- REGRADING

(ASSUME  $\sim \$2,500$  PER YR.)

- LINER REPAIR

(ASSUME 250 SY/YR (40 MIL), 250 SY/YR (60 MIL))

REPAIR 250 SY 40 MIL LINER

- REFERENCE (4)

MATERIAL

INSTALL

FROM GSE PRICE QUOTE: 40 MIL =  $\$0.225/\text{SF} + \$0.20/\text{SF}$ 

$$\text{COST} = (\$0.225/\text{SF} + \$0.20/\text{SF}) \times 250 \text{ SY} \times 9 \text{ SF/SY} = \$956.25$$

REPAIR 250 SY 60 MIL LINER

- REFERENCE (4)

MATERIAL

INSTALL

FROM GSE PRICE QUOTE: 60 MIL =  $\$0.299/\text{SF} + \$0.20/\text{SF}$ 

$$\text{COST} = (\$0.299/\text{SF} + \$0.20/\text{SF}) \times 250 \text{ SY} \times 9 \text{ SF/SY} = \$1,122.75$$

$$\text{COST PER SY OF LINER} = \frac{(\$956.25 + \$1,122.75)}{500 \text{ SY}}$$

$$= \$4.16/\text{SY}$$



CLIENT	HARDEE COUNTY	PROJECT	FINANCIAL ASSURANCE	JOB NO.	09199033.19
SUBJECT	CLOSURE/LONG TERM CARE			BY	DAW
	COST ESTIMATE			CHECKED	SDT
				DATE	8/14/09
				DATE	9/1/09

## II. STORMWATER MANAGEMENT SYSTEM MAINTENANCE

- PIPES  
(ASSUME ~ 250 LF/YR TO BE REPLACED)
- FDOT INDEX NO. 2104 ENERGY DISSIPATOR  
(ASSUME 1 REPLACED EVERY 5 YRS)
- OTHER MAINTENANCE  
(ASSUME ~ 5% OF CLOSING COST ITEM #6)
- REFERENCE ⑥

- PIPES - TOTAL PIPE COST = \$27,376.29  
TOTAL PIPE LENGTH = 240 + 825 = 1065 LF

$$\text{TOTAL UNIT COST} = \frac{\$27,376.29}{1065 \text{ LF}} = \$25.71/\text{LF}$$

$$\text{PIPE COST} = 250 \text{ LF} \times \$25.71/\text{LF} = \underline{\underline{\$6,427.50}}$$

FDOT INDEX NO. 2104 ENERGY DISSIPATOR

- REFERENCE ①

COST FROM ITEM #6 = \$2,987.25/EA

REPLACE EVERY 5 YRS (OR 0.2/YR)

$$\text{COST} = 0.2 \times \$2,987.25 = \underline{\underline{\$597.45}}$$

OTHER (5% OF CLOSING COST ITEM #6)

CLOSING COST ITEM #6 = \$101,787.75

$$\text{COST} = 0.05 \times \$101,787.75 = \underline{\underline{\$5,089.39}}$$

$$\text{TOTAL COST} = 6,427.50 + 597.45 + 5,089.39 = \underline{\underline{\$12,114.34}}$$

CLIENT	HARDEE COUNTY	PROJECT	FINANCIAL ASSURANCE	JOB NO.	09199033.19
SUBJECT	CLOSURE / LONG TERM CARE			BY	DAW
COST ESTIMATE				CHECKED	JAF
				DATE	8/14/09
				DATE	9/1/09

## 12. SECURITY SYSTEM

## - GATE

(ASSUME 1 GATE NEEDS TO BE REPLACED EVERY 5 YRS)

## - FENCE

(ASSUME ~ 500 FT OF FENCE NEEDS TO BE REPLACED EVERY YR)

## - GATE - (REFERENCE (13))

COST FROM RS MEANS 2009, 32 31 13.20 5090 \$3525  
DOUBLE SWING GATES, INCL. POSTS + HARDWARE, IN CONCRETE, 8' HIGH, 20' OPENING

## - FENCE (REFERENCE (14))

COST FROM RS MEANS 2009, 32 31 13.40 11200 \$22.00/LF  
FABRIC, 9 GA. GALV, 1.202 COAT, 2" CHAIN LINK, 8'

## 13. UTILITIES

ASSUME

\$500 LUMP SUM

## SCS ENGINEERS

SHEET \_\_\_\_\_ OF \_\_\_\_\_

CLIENT	HARDEE COUNTY	PROJECT	FINANCIAL ASSURANCE	JOB NO.	09199033-19
SUBJECT	CLOSURE / LONG TERM CARE COST ESTIMATE			BY	DAW
				CHECKER	SAF
				DATE	8/14/09
				DATE	9/1/09

## 14. ADMINISTRATIVE

- ACCOUNT FOR A QUARTERLY VIST FROM  
A PROJECT MANAGER (P.E. SUPERVISOR)  
FOR 4 HRS @ \$140/HR - REFERENCE (19)

$$4 \times 4 \text{ HRS} \times \$140/\text{HR} = \$2,240/\text{YR}$$

- ACCOUNT FOR AN ON-SITE TECHNICIAN FOR  
2 DAYS PER MONTH @ \$62/HR - REFERENCE (19)

$$\frac{2 \text{ DAYS}}{\text{MO.}} \times \frac{8 \text{ HRS}}{\text{DAY}} \times \frac{12 \text{ MO.}}{\text{YR}} \times \frac{\$62}{\text{HR}} = \$11,904$$

REFERENCE

DESOTO COUNTY ENVIRONMENTAL SERVICES DEPARTMENT  
ZONE 2 AND PARTIAL ZONE 3 CLOSURE  
DESOTO COUNTY SECTION 16 LANDFILL  
PROJECT NUMBER: 09-11-001TB

Item No.	Item Description	Unit	Contract Quantity	Eng Estimate Unit Price in Figures (\$)	Eng Estimate Total Item Price (\$)	COMANCO Unit Price in Figures (\$)	COMANCO Total Item Price (\$)	SE ENV CONT Unit Price in Figures (\$)	SE ENV CONT Total Item Price (\$)	ERC Unit Price in Figures (\$)	ERC Total Item Price (\$)	T & K Unit Price in Figures (\$)	T & K Total Item Price (\$)
001	Mobilization/Demobilization	LS	1	164,711.05	164,711.05	73,500.00	73,500.00	100,000.00	100,000.00	180,000.00	180,000.00	199,300.00	199,300.00
002	Site Clearing/Grubbing and Scraping	AC	8	1,779.50	14,236.00	3,500.00	28,000.00	10,000.00	80,000.00	1,000.00	8,000.00	1,200.00	9,600.00
003	Survey	LS	1	36,250.00	36,250.00	35,000.00	35,000.00	20,000.00	20,000.00	20,000.00	20,000.00	36,300.00	36,300.00
004	Temporary Erosion and Sedimentation Control	LS	1	3,220.00	3,220.00	4,000.00	4,000.00	20,000.00	20,000.00	10,000.00	10,000.00	28,200.00	28,200.00
005	Demolition of Gabion Basket Downchutes	LS	1	60,896.50	60,896.50	7,000.00	7,000.00	10,000.00	10,000.00	15,000.00	15,000.00	12,100.00	12,100.00
006	Excavation of Unsuitable Soil/Waste (Intermediate Cover Soil Layer/Grading Layer)	CY	18,044	4.40	79,393.60	1.75	31,577.00	2.00	36,088.00	9.00	162,396.00	3.42	61,710.48
007	Fill for Excavated Unsuitable Soil/Waste (Intermediate Cover Soil Layer/Grading Layer)	CY	4,347	9.28	40,340.16	1.95	8,476.65	2.00	8,694.00	7.00	30,429.00	2.73	11,867.31
008	Subbase Final Grading/Compaction	SY	38,173	3.22	122,917.06	0.50	19,086.50	5.00	190,865.00	0.50	19,086.50	0.36	13,742.28
009	40 mil Textured LLDPE	SF	382,215	0.39	149,063.85	0.41	156,708.15	0.30	114,664.50	0.33	126,130.95	0.44	168,174.60
010	300 mil Biplanar Geocomposite	SF	386,879	0.67	259,208.93	0.52	201,177.08	0.55	212,783.45	0.55	212,783.45	0.61	235,996.19
011	Protective Soil Cover Layer (18 Inches)	CY	20,094	11.94	239,922.36	16.25	326,527.50	8.00	160,752.00	18.00	361,692.00	9.72	195,313.68
012	Topsoil Layer (6 Inches)	CY	6,488	8.66	56,186.08	8.00	51,904.00	8.00	51,904.00	15.00	97,320.00	10.92	70,848.96
013	18 Inch Diameter ADS N-12 Downchute Pipe	LF	908	24.77	22,491.16	25.00	22,700.00	35.00	31,780.00	20.00	18,160.00	26.00	23,608.00
014	12 Inch Diameter ADS N-12 Downchute Pipe	LF	345	15.02	5,181.90	15.00	5,175.00	30.00	10,350.00	19.00	6,555.00	35.00	12,075.00
015	FDOT Index No. 261 Baffled Endwall	EA	4	15,000.00	60,000.00	3,750.00	15,000.00	5,000.00	20,000.00	1,200.00	4,800.00	1,999.00	7,996.00
016	GFFR Lined Stormwater Swale and Downchute Pipe Outfall Areas	SF	7,192	22.50	161,820.00	8.00	57,536.00	6.00	43,152.00	6.00	43,152.00	8.15	58,614.80
017	6 Inch Diameter ADS N-12 Toe Drain (Slotted Pipe)	LF	1,060	16.18	17,150.80	23.00	24,380.00	28.00	29,680.00	8.00	8,480.00	33.00	34,980.00
018	6 Inch Diameter ADS N-12 Toe Drain (Solid Wall Pipe)	LF	120	14.14	1,697.00	15.00	1,800.00	12.00	1,440.00	8.00	960.00	19.00	2,280.00
019	Limerock Access Ramp	SY	3,287	13.71	45,064.77	8.00	26,296.00	5.00	16,435.00	5.00	16,435.00	20.80	68,369.60
020	Horizontal Landfill Gas Vent Trench Installation	LF	1,654	49.62	82,071.48	35.00	57,890.00	29.00	47,966.00	55.00	90,970.00	38.00	62,852.00
021	Vertical Landfill Gas Vent Installation												
021a	30 Inch Diameter Bore with 4 Inch Diameter PVC Casing	LF	453	90.54	41,014.62	120.00	54,360.00	150.00	67,950.00	85.00	38,505.00	104.00	47,112.00
021b	Boring Refusal	LF	45	90.54	4,074.30	75.00	3,375.00	70.00	3,150.00	30.00	1,350.00	48.00	2,160.00
022	Sodding	SY	38,720	3.69	142,876.80	1.44	55,756.80	1.75	67,760.00	1.50	58,080.00	1.69	65,436.80
023	Seeding	SY	3,333	0.61	2,033.13	0.75	2,499.75	0.40	1,333.20	0.40	1,333.20	0.58	1,933.14
					\$1,811,821.55		\$1,269,725.43		\$1,346,747.15		\$1,531,618.10		\$1,430,570.84
024	Contingency	EA	1	200,000.00	200,000.00		200,000.00		200,000.00		200,000.00		200,000.00
				<b>TOTAL BID PRICE:</b>	<b>\$2,011,821.55</b>		<b>\$1,469,725.43</b>		<b>\$1,546,747.15</b>		<b>\$1,731,618.10</b>		<b>\$1,630,570.84</b>

**TNT FILL DIRT**

3721 E. Main Street  
Wauchula, FL 33873  
Office (863) 773-9446  
Fax (863) 773-3599

Fax Transmittal Form

---

TO:

FROM: Lisa Parrish

ATTN: Dominique Bramlett

DATE:

PHONE: 813-621-6070

NO. OF PAGES:

FAX: 813-623-6757

MESSAGE:

For clean fill dirt \$1.00 Pre Yd.  
For Hauling fill dirt \$1.50 Pre Yd.

Lisa Parrish

We Appreciate Your Business!



# 31 23 Excavation and Fill

31 23 23 - Fill

REFERENCE (2)

## 31 23 23.14 Backfill, Structural

		Crew	Daily Output	Labor Hours	Unit	Material	2009 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
0010	BACKFILL, STRUCTURAL									
0011	Dozer or F.E. loader									
0020	From existing stockpile, no compaction									
2000	80 H.P., 50' haul, sand & gravel	B-10L	1100	.011	LCY		.42	.36	.78	1.03
2010	Sandy clay & loam		1070	.011			.43	.37	.80	1.06
2020	Common earth		975	.012			.47	.41	.88	1.16
2040	Clay		850	.014			.54	.47	1.01	1.34
2200	150' haul, sand & gravel		550	.022			.83	.73	1.56	2.06
2210	Sandy clay & loam		535	.022			.85	.75	1.60	2.12
2220	Common earth		490	.024			.93	.81	1.74	2.31
2240	Clay		425	.028			1.08	.94	2.02	2.66
2400	300' haul, sand & gravel		370	.032			1.24	1.08	2.32	3.06
2410	Sandy clay & loam		360	.033			1.27	1.11	2.38	3.15
2420	Common earth		330	.036			1.39	1.21	2.60	3.43
2440	Clay		290	.041			1.58	1.38	2.96	3.90
3000	105 H.P., 50' haul, sand & gravel	B-10W	1350	.009			.34	.44	.78	1
3010	Sandy clay & loam		1325	.009			.35	.45	.80	1.02
3020	Common earth		1225	.010			.37	.49	.86	1.11
3040	Clay		1100	.011			.42	.55	.97	1.23
3200	150' haul, sand & gravel		670	.018			.68	.90	1.58	2.02
3210	Sandy clay & loam		655	.018			.70	.92	1.62	2.07
3220	Common earth		610	.020			.75	.98	1.73	2.22
3240	Clay		550	.022			.83	1.09	1.92	2.46
3300	300' haul, sand & gravel		465	.026			.98	1.29	2.27	2.91
3310	Sandy clay & loam		455	.026			1	1.32	2.32	2.97
3320	Common earth		415	.029			1.10	1.45	2.55	3.26
3340	Clay		370	.032			1.24	1.62	2.86	3.66
4000	200 H.P., 50' haul, sand & gravel	B-10B	2500	.005			.18	.43	.61	.76
4010	Sandy clay & loam		2435	.005			.19	.44	.63	.77
4020	Common earth		2200	.005			.21	.49	.70	.85
4040	Clay		1950	.006			.23	.55	.78	.97
4200	150' haul, sand & gravel		1225	.010			.37	.88	1.25	1.54
4210	Sandy clay & loam		1200	.010			.38	.90	1.28	1.57
4220	Common earth		1100	.011			.42	.98	1.40	1.71
4240	Clay		975	.012			.47	1.11	1.58	1.93
4400	300' haul, sand & gravel		805	.015			.57	1.34	1.91	2.34
4410	Sandy clay & loam		790	.015			.58	1.37	1.95	2.39
4420	Common earth		735	.016			.62	1.47	2.09	2.56
4440	Clay		660	.018			.69	1.64	2.33	2.85
5000	300 H.P., 50' haul, sand & gravel	B-10M	3170	.004			.14	.45	.59	.71
5010	Sandy clay & loam		3110	.004			.15	.46	.61	.72
5020	Common earth		2900	.004			.16	.49	.65	.78
5040	Clay		2700	.004			.17	.53	.70	.84
5200	150' haul, sand & gravel		2200	.005			.21	.65	.86	1.02
5210	Sandy clay & loam		2150	.006			.21	.66	.87	1.05
5220	Common earth		1950	.006			.23	.73	.96	1.16
5240	Clay		1700	.007			.27	.84	1.11	1.33
5400	300' haul, sand & gravel		1500	.008			.30	.95	1.25	1.50
5410	Sandy clay & loam		1470	.008			.31	.97	1.28	1.53
5420	Common earth		1350	.009			.34	1.05	1.39	1.67
5440	Clay		1225	.010			.37	1.16	1.53	1.85
6000	For compaction, see Div. 31 23 23.23									



# 31 23 Excavation and Fill

## 31 23 23 - Fill

REFERENCE ③

31 23 23.20 Hauling		Crew	Daily Output	Labor-Hours	Unit	Material	2009 Bare Costs			Total
							Labor	Equipment		
8120	cycle 4 miles	B-341	660	.012	E.C.Y.		.39	3.10	3.49	
8130	15 MPH, cycle 2000 ft		1320	.006			.19	1.55	1.74	
8140	cycle 3000 ft		1260	.006			.20	1.62	1.82	
8150	cycle 4000 ft		1260	.006			.20	1.62	1.82	
8160	cycle 0.5 mile		1320	.006			.19	1.55	1.74	
8170	cycle 1 mile		1200	.007			.21	1.71	1.92	
8180	cycle 2 miles		1020	.008			.25	2.01	2.26	
8190	cycle 4 miles		780	.010			.33	2.63	2.96	
8200	20 MPH, cycle 2 miles		1080	.007			.24	1.90	2.14	
8210	cycle 4 miles		900	.009			.28	2.27	2.55	
8220	25 MPH, cycle 2 miles		1140	.007			.22	1.80	2.02	
8230	cycle 4 miles		960	.008			.27	2.13	2.40	2.75
8300	25 min. wait/ld./Uld., 5 MPH, cycle 2000 ft		960	.008			.27	2.13	2.40	2.75
8310	cycle 3000 ft		900	.009			.28	2.27	2.55	2.94
8320	cycle 4000 ft		840	.010			.30	2.44	2.74	3.15
8330	cycle 0.5 mile		900	.009			.28	2.27	2.55	2.94
8340	cycle 1 mile		780	.010			.33	2.63	2.96	3.39
8350	cycle 2 miles		600	.013			.43	3.41	3.84	4.41
8360	10 MPH, cycle 2000 ft		1020	.008			.25	2.01	2.26	2.60
8370	cycle 3000 ft		1020	.008			.25	2.01	2.26	2.60
8380	cycle 4000 ft		960	.008			.27	2.13	2.40	2.75
8390	cycle 0.5 mile		1020	.008			.25	2.01	2.26	2.60
8400	cycle 1 mile		900	.009			.28	2.27	2.55	2.94
8410	cycle 2 miles		780	.010			.33	2.63	2.96	3.39
8420	cycle 4 miles		600	.013			.43	3.41	3.84	4.41
8430	15 MPH, cycle 2000 ft		1080	.007			.24	1.90	2.14	2.45
8440	cycle 3000 ft		1020	.008			.25	2.01	2.26	2.60
8450	cycle 4000 ft		1020	.008			.25	2.01	2.26	2.60
8460	cycle 0.5 mile		1080	.007			.24	1.90	2.14	2.45
8470	cycle 1 mile		960	.008			.27	2.13	2.40	2.75
8480	cycle 2 miles		840	.010			.30	2.44	2.74	3.15
8490	cycle 4 miles		660	.012			.39	3.10	3.49	4.01
8500	20 MPH, cycle 2 miles		900	.009			.28	2.27	2.55	2.94
8510	cycle 4 miles		780	.010			.33	2.63	2.96	3.39
8520	25 MPH, cycle 2 miles		960	.008			.27	2.13	2.40	2.75
8530	cycle 4 miles		840	.010			.30	2.44	2.74	3.15

## 31 23 23.23 Compaction

COMPACTION										
5000	Riding, vibrating roller, 6" lifts, 2 passes	B-10Y	3000	.004	E.C.Y.		.15	.16	.31	.40
5020	3 passes		2300	.005			.20	.20	.40	.52
5040	4 passes		1900	.006			.24	.25	.49	.64
5060	12" lifts, 2 passes		5200	.002			.09	.09	.18	.23
5080	3 passes		3500	.003			.13	.13	.26	.35
5100	4 passes		2600	.005			.18	.18	.36	.47
5600	Sheepsfoot or wobbly wheel roller, 6" lifts, 2 passes	B-10G	2400	.005			.19	.48	.67	.81
5620	3 passes		1735	.007			.26	.66	.92	1.12
5640	4 passes		1300	.009			.35	.88	1.23	1.50
5680	12" lifts, 2 passes		5200	.002			.09	.22	.31	.37
5700	3 passes		3500	.003			.13	.33	.46	.56
5720	4 passes		2600	.005			.18	.44	.62	.75
6000	Towed sheepsfoot or wobbly wheel roller, 6" lifts, 2 passes	B-10D	10000	.001			.05	.15	.20	.24
6020	3 passes		2000	.006			.23	.77	1	1.20

**Warner, Drew**

**From:** Matt Skinner [mskinner@gseworld.com]  
**Sent:** Tuesday, August 25, 2009 4:07 PM  
**To:** Warner, Drew  
**Cc:** Bob Killian  
**Subject:** RE: Hardee County - Price Quote

Drew,

Here is your budgetary pricing. Let me know if you have any other questions. Thanks

Material Supply:

40 mil LLD DS Textured .225/SF + 0.20  
60 mil HD DS Textured .299/SF + 0.20  
300 mil DS 8 oz Composite .420/SF + 0.15

(PRICES INCLUDE DELIVERY)

(Above prices delivered to Wauchula, FL)

Installation:

Geomembrane .16 - .20 /SF (Dependent on site conditions, safety requirements, etc.)  
Geocomposite .12- .15 /SF (Dependent on site conditions, safety requirements, etc.)

Thanks

**MATT SKINNER**

Inside Sales

GSE Sales Team

P:281.230.8635 | C:832.584.4720 | F:281.230.8663

[www.gseworld.com](http://www.gseworld.com)

-----Original Message-----

**From:** Warner, Drew [mailto:DWarner@scsengineers.com]  
**Sent:** Tuesday, August 25, 2009 2:53 PM  
**To:** Matt Skinner  
**Subject:** RE: Hardee County - Price Quote

The material will be delivered to the Hardee County Landfill. The Address is 685 Airport Rd  
Wauchula, FL 33873. Please let me know if you have any other questions.

-----Original Message-----

**From:** Matt Skinner [mailto:mskinner@gseworld.com]  
**Sent:** Tuesday, August 25, 2009 3:47 PM  
**To:** Warner, Drew  
**Subject:** Re: Hardee County - Price Quote

Drew,

Where will the material be delivered to? Thanks

Matt Skinner

Inside Sales Manager



REFERENCE (5)

**Price It Now**

Fill out the blanks and hit  
calculate.

Please note that the  
pricing reflected from the  
calculator is only a rough  
estimate

**CALCULATE**

☐ **SQUARE FEET** 823045

Inaccessible  
Square Feet

Pick a sod **Bahia**

Installation ☒

Rip Out ☐

**CALCULATE**

**TOTAL PRICE PER SQ FT** 0.16

**TOTAL SOD NEEDED** 823250

**TOTAL ESTIMATED PRICE** 131720

Warner, Drew

**From:** Geoffrey Powers - 44 TAMPA\_WATERWORKS [geoffrey.powers@ferguson.com]  
**Sent:** Friday, August 21, 2009 2:51 PM  
**To:** Warner, Drew  
**Subject:** Email Bid# B156214

## Price Quotation # B156214

## FEI-TAMPA, FL WATERWORKS #044

8008 E. SLIGH AVE.  
TAMPA, FL 33610-0000

Phone : 813-627-1240  
Fax : 813-627-1299

**Bid No.....:** B156214  
**Bid Date....:** 08/21/09  
**Quoted By:** GP  
**Customer.:** BID CONTRACTOR TAMPA #1  
 FOR BIDDING PURPOSES ONLY  
 TAMPA, FL 33637

**Cust Phone:** 999-999-9999  
**Terms.....:** NET 30 DAYS  
**Ship To.....:** BID CONTRACTOR TAMPA #1  
 FOR BIDDING PURPOSES ONLY  
 TAMPA, FL 33637

Cust PO#..:

Job Name.: SCS ENGINEERS

Item	Description	Quantity	Net Price	UM	Total
A12650020IB	12X20 N12 COR W/TITE HDPE PIPE BE	240	8.200	FT	1968.00
A18650020IB	18X20 N12 COR W/TITE HDPE PIPE BE	840	15.300	FT	12852.00
	NO DBL WYES				
A1884AN	18X12 N12 COR WYE	12	294.100	EA	3529.20
A1865AA	18 N12 HDPE SPLT COUP	24	22.700	EA	544.80
A1265AA	12 N12 HDPE SPLT COUP	12	9.500	EA	114.00

**Net Total:** 19008.00  
**Tax:** 1190.48  
**Total:** 20198.48

Quoted prices are based upon receipt of the total quantity for immediate shipment (48 hours). SHIPMENTS BEYOND 48 HOURS SHALL BE AT THE PRICE IN EFFECT AT TIME OF SHIPMENT. Quotations are offered contingent upon the Buyer's acceptance of Seller's terms and conditions. Seller objects to all other terms and conditions. Seller not responsible for delays or lack of product due to causes beyond our control. Purchaser's sole warranties, if any, are those provided by the manufacturer. SELLER DISCLAIMS ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL SELLER BE LIABLE FOR ANY INCIDENTAL, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING DIRECTLY OR INDIRECTLY FROM THE OPERATION OR USE OF THE PRODUCT. SELLER'S LIABILITY, IF ANY, SHALL BE LIMITED TO THE NET SALES PRICE RECEIVED BY SELLER. Complete Terms and Conditions are available upon request or can be viewed on the web at [www.ferguson.com/sales-terms.html](http://www.ferguson.com/sales-terms.html).

# 33 31 Sanitary Utility Sewerage Piping

## 33 31 13 - Public Sanitary Utility Sewerage Piping

REFERENCE (7)

33 31 13.13 Sewage Collection, Vent Cast Iron Pipe		Daily Crew	Labor Output	Hours	Unit	Material	2009 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
0010	SEWAGE COLLECTION, VENT CAST IRON PIPE									
0020	Not including excavation or backfill									
2022	Sewage vent cast iron, B & S, 4" diameter	Q-1	66	.242	LF	11.35	10.65		22	28.50
2024	5" diameter	Q-2	88	.273		16	12.40		28.40	36
2026	6" diameter	"	84	.286		19.40	13		32.40	41
2028	8" diameter	Q-3	70	.457		31.50	21		52.50	66.50
2030	10" diameter		66	.485		51.50	22.50		74	91
2032	12" diameter		57	.561		73.50	26		99.50	120
2034	15" diameter	↓	49	.653	↓	105	30.50		135.50	162
8001	Fittings, bends and elbows									
8110	4" diameter	Q-1	13	1.231	LF	39	54		93	124
8112	5" diameter	Q-2	18	1.333		56	60.50		116.50	153
8114	6" diameter	"	17	1.412		66.50	64		130.50	170
8116	8" diameter	Q-3	11	2.909		187	135		322	410
8118	10" diameter		10	3.200		276	149		425	530
8120	12" diameter		9	3.556		360	165		525	650
8122	15" diameter	↓	7	4.571	↓	1,025	212		1,237	1,450
8500	Wyes and tees									
8510	4" diameter	Q-1	8	2	LF	57.50	88		145.50	196
8512	5" diameter	Q-2	12	2		105	91		196	252
8514	6" diameter	"	11	2.182		133	99.50		232.50	295
8516	8" diameter	Q-3	7	4.571		315	212		527	670
8518	10" diameter		6	5.333		505	248		753	925
8520	12" diameter		4	8		935	370		1,305	1,575
8522	15" diameter	↓	3	10.667	↓	1,600	495		2,095	2,500

### 33 31 13.15 Sewage Collection, Concrete Pipe

0010	SEWAGE COLLECTION, CONCRETE PIPE									
0020	See Div. 33 41 13.60 for sewage/drainage collection, concrete pipe									

### 33 31 13.20 Sewage Collection, Plastic Pipe

0010	SEWAGE COLLECTION, PLASTIC PIPE									
0020	Not including excavation & backfill									
3000	Piping, HDPE Corrugated Type S with watertight gaskets, 4" diameter	B-20	425	.056	LF	90	2		2.90	4.08
3020	6" diameter	↓	400	.060		2.05	2.12		4.17	5.55
3040	8" diameter		380	.063		3.91	2.23		6.14	7.75
3060	10" diameter		370	.065		5.40	2.29		7.69	9.50
3080	12" diameter		340	.071		7.35	2.50		9.85	11.95
3100	15" diameter	↓	300	.080		10	2.83		12.83	15.40
3120	18" diameter	B-21	275	.102		14.25	3.70	47	18.42	22
3140	24" diameter		250	.112		22	4.07	52	26.59	31.50
3160	30" diameter		200	.140		35	5.10	65	40.75	47
3180	36" diameter		180	.156		44.50	5.65	72	50.87	58.50
3200	42" diameter		175	.160		55.50	5.80	.74	62.04	71
3220	48" diameter		170	.165		72	6	.76	78.76	89
3240	54" diameter		160	.175		111	6.35	.81	118.16	133
3260	60" diameter	↓	150	.187	↓	129	6.80	.86	136.66	153
3300	Watertight elbows 12" diameter	B-20	11	2.182	LF	61	77		138	187
3320	15" diameter	"	9	2.667		94	94.50		188.50	250
3340	18" diameter	B-21	9	3.111		155	113	14.35	282.35	360
3360	24" diameter		9	3.111		330	113	14.35	457.35	555
3380	30" diameter		8	3.500		525	127	16.15	668.15	795
3400	36" diameter		8	3.500		680	127	16.15	823.15	960
3420	42" diameter	↓	6	4.667	↓	855	170	21.50	1,046.50	1,225



# 31 37 Riprap

## 31 37 13 - Machined Riprap

### 31 37 13.10 Rip-Rap and Rock Lining

		Crew	Daily Output	Labor-Hours	Unit	Material	2009 Bare Costs Labor	Equipment	Total	Total Incl O&P
0010	<b>RIP-RAP AND ROCK LINING</b>									
0011	Random, broken stone									
0100	Machine placed for slope protection	B-12G	62	258	L.C.Y.	31	9.55	10.50	51.05	60
0110	3/8 to 1/4 C.Y. pieces, grouted	B-13	80	700	S.Y.	69.50	24	9.85	103.35	124
0200	18" minimum thickness, not grouted	"	53	1.057	"	19.25	36	14.90	70.15	93
0300	Dumped, 50 lb. average	B-11A	800	.020	Ton	28	.73	1.35	30.08	33
0350	100 lb. average	↓	700	.023	↓	40	.83	1.55	42.38	47
0370	300 lb. average	↓	600	.027	↓	46.50	.97	1.80	49.27	54.50

## 31 41 Shoring

### 31 41 13 - Timber Shoring

#### 31 41 13.10 Building Shoring

0010	<b>BUILDING SHORING</b>									
0020	Shoring, existing building, with timber, no salvage allowance	B-51	2.20	21.818	M.B.F.	695	695	88.50	1,478.50	1,925
1000	On cribbing with 35 ton screw jacks, per box and jack	"	3.60	13.333	Jack	63.50	425	54	542.50	785
1100	Masonry openings in walls, see Div. 02 41.19.16									

### 31 41 16 - Sheet Piling

#### 31 41 16.10 Sheet Piling Systems

0010	<b>SHEET PILING SYSTEMS</b>									
0020	Sheet piling steel, not incl. wales, 22 psf, 15' excv., left in place	B-40	10.81	5.920	Ton	1,225	234	305	1,764	2,050
0100	Drive, extract & salvage		6	10.667		505	420	550	1,475	1,825
0300	20' deep excavation, 27 psf, left in place		12.95	4.942		1,225	195	256	1,676	1,950
0400	Drive, extract & salvage		6.55	9.771		505	385	505	1,395	1,725
0600	25' deep excavation, 38 psf, left in place		19	3.368		1,225	133	174	1,532	1,750
0700	Drive, extract & salvage		10.50	6.095		505	241	315	1,061	1,275
0900	40' deep excavation, 38 psf, left in place		21.20	3.019		1,225	119	156	1,500	1,700
1000	Drive, extract & salvage		12.25	5.224	↓	505	207	270	982	1,175
1200	15' deep excavation, 22 psf, left in place		983	.065	S.F.	14.35	2.58	3.37	20.30	23.50
1300	Drive, extract & salvage		545	.117		5.65	4.64	6.10	16.39	20
1500	20' deep excavation, 27 psf, left in place		960	.067		18.05	2.64	3.45	24.14	28
1600	Drive, extract & salvage		485	.132	↓	7.35	5.20	6.85	19.40	24
1800	25' deep excavation, 38 psf, left in place		1000	.064	↓	26.50	2.53	3.31	32.34	36.50
1900	Drive, extract & salvage		553	.116	↓	10.05	4.58	6	20.63	25
2100	Rent steel sheet piling and wales, first month				Ton	263			263	289
2200	Per added month					26.50			26.50	29
2300	Rental piling left in place, add to rental					980			980	1,075
2500	Wales, connections & struts, 2/3 salvage					275			275	300
2700	High strength piling, 50,000 psi, add					66.50			66.50	73
2800	55,000 psi, add					70.50			70.50	77.50
3000	Tie rod, not upset, 1-1/2" to 4" diameter with turnbuckle					2,200			2,200	2,400
3100	No turnbuckle					1,675			1,675	1,850
3300	Upset, 1-3/4" to 4" diameter with turnbuckle					2,450			2,450	2,700
3400	No turnbuckle				↓	2,125			2,125	2,350
3600	Lightweight, 18" to 28" wide, 7 ga., 9.22 psf, and									
3610	9 ga., 8.6 psf, minimum				lb.	.90			.90	.99
3700	Average				↓	.98			.98	1.08
3750	Maximum				↓	1.12			1.12	1.23
3900	Wood, solid sheeting, incl. wales, braces and spacers,									
3910	drive, extract & salvage, 8' deep excavation	B-31	330	.121	S.F.	1.47	4.08	.55	6.10	8.55
4000	10' deep, 50 S.F./hr. in & 150 S.F./hr. out	↓	300	.133	↓	1.52	4.49	.60	6.61	9.30



An employee-owned company

dc  
b34-031

REFERENCE ⑧

August 13, 2009  
Project No: 100005742  
Invoice No: 1054271

Teresa Carver, Director Solid Waste  
Animal Services  
685 Airport Road  
Wauchula FL 33873

Project: 100005742

Hardee: Landfill Gas & GW Monitoring  
PO# 500873  
Landfill gas and GW Monitoring

Professional services from January 1, 2009 to July 31, 2009

**Fee**

Phase	Fee	Percent	Earned
Surface Water Sampling	619.00	100.00	619.00
Ground Water Sampling	4,536.00	100.00	4,536.00
Leachate Annual Sampling	967.00	100.00	967.00
Ground Water Elevations	600.00	100.00	600.00
Landfill Gas Testing & Reporting	2,010.00	100.00	2,010.00
Groundwater Report	950.00	100.00	950.00
Total Fee	9,682.00	Total Earned	9,682.00
		Previous Fee Billing	0.00
		Current Fee Billing	9,682.00
		<b>Total Fee</b>	<b>9,682.00</b>

**Billing Limits**

	Current	Prior	To-date
Total Billings	9,682.00	0.00	9,682.00
Limit			17,313.00
Remaining			7,631.00

**Total this invoice \$9,682.00**

Please Remit Payment to: PBS&J P.O. Box 409357 Atlanta, Ga. 30384-9357  
Tax ID # 59-0896138

Should you have any question regarding this invoice, please call Greg Mudd at (407) 806-4339.

# FLORIDA JETCLEAN

## ----- HIGH PRESSURE WATER JETTING – VACUUM EXTRACTION – PIPELINE TV INSPECTION - PIPE LOCATING – NO DIG REPAIRS -----

19019 Fern Meadow Loop  
Lutz, FL 33558  
www.floridajetclean.com

TEL : 800-226-8013  
FAX : 813-926-4616

### PROPOSAL

DATE : 8/25/2009  
TO : Drew Warner – SCS Engineers  
FROM : Ralph Calistri (floridajetclean@tampabay.rr.com)  
SUBJECT : Leachate Collection System Maintenance at Hardee County Landfill

Thank you for your inquiry. We confirm our capability and interest in carrying out this work at the Hardee County Landfill.

**FLORIDA JETCLEAN** specializes in leachate collection system maintenance and inspection, and has developed a considerable amount of specific expertise in this field over the last 12 years. Our company has worked at an extensive number of landfills in Florida, Georgia, the Carolinas, Delaware, and westward to Arkansas. We have worked with most engineering companies active in this field, and have also fostered excellent working relationships with the regulatory authorities. We use modified jetting equipment designed to achieve extended pipe distances found in landfill environments and our explosion proof camera equipment complies with OSHA and regulatory mandates for methane environments. Substantial references are available on request.

- 1) **Florida Jetclean, Inc. is consistently successful in Leachate pipe cleaning because of our ability to address extended distances from a single point of entry.** Typical lower-end equipment is designed for much shorter pipes in sewer environments and is just not capable of distances required in Leachate collection systems. We will provide very capable, high-end equipment, and seasoned operators to help ensure success. Our current distance record from a single point of entry is 1,650'.
- 2) Florida Jetclean, Inc. uses only **explosion proof** (certified Class 1, Division 1, Gas Groups C & D) tractor-driven or push-rod video inspection equipment. **THIS CERTIFICATION IS MANDATED BY OSHA IN METHANE PIPING.** Our equipment and procedures fully meet OSHA and DEP requirements, and **we will put it in writing.**

*Proposal to provide high-pressure water-jetting and explosion-proof video-inspection services on the Phase I leachate collection system and the Phase II Section I leachate collection and groundwater collection systems at the Hardee County Landfill, as follows:*

Approximately

9

4,372' of Phase I Leachate Collection Pipe  
6,181' of Phase II Section I Groundwater Collection Pipe  
2,350' of Phase II Section I Leachate Collection Pipe  
1,300' of Phase II Section I Toe Drains  
Two days of vacuum extraction of dislodged sediments from pump stations and sumps.

Total Cost = \$ 32,695.00

The proposal is subject to the following :

- The above pipe cleaning covers biomass and light silt removal. Scale removal and blockage penetration may require the use of 10,000PSI/20GPM pipeline water-blasting equipment billable at \$1,950/day. Pipes affected by heavy silting may require additional hourly billing.
- An adequate, no charge, on site water supply for jetcleaning.
- Debris vacuum extracted from landfill vaults to be dumped back on site at no charge.
- 2 wheel drive vehicle access within 10'-15' of each cleanout or manhole.
- Continuity of access allowing work to be carried out on a single mobilization
- Exposed and opened cleanouts/manholes at ground level
- Standby time chargeable at \$200.00 per hour should delays not of our making delay progress e.g. bad weather, access problems, high leachate flow levels etc.
- Pricing is unrelated to actual or achieved footages but on the number of setups required and the time we anticipate being on site.
- Current technology limitations may preclude the use of tractor video systems (range 1250') in 8" lines restricted to cleanout access. If a push video system has to be used, we will be limited to a maximum 500' from each point of entry.
- Our equipment and procedures fully meet OSHA and DEP requirements. In particular our video inspection equipment is certified Class 1, Division 1, Groups C & D (i.e. explosion proof). This is mandated in methane piping by OSHA.
- Video log and report together with video tapes will be provided after completion.

Regards,  
Ralph Calistri – Florida Jetclean.

## SCS ENGINEERS

### SCS ENGINEERS FEE SCHEDULE

(Effective July 1, 2009 through June 30, 2010)

	<u>Rate/Hour (\$)</u>
Principal/Office Director.....	200
Project Director.....	190
Senior Project Advisor.....	150
Senior Project Manager.....	150
Project Manager.....	140
Senior Project Professional.....	115
Project Professional.....	95
Designer.....	98
Staff Professional.....	88
Senior Technician 2.....	88
Senior Technician 1.....	67
Associate Staff Professional.....	74
Draftsperson.....	72
Technician.....	62
Office Services Manager.....	75
Secretarial/Clerical.....	55

1. The hourly rates are effective through June 30, 2010. Work performed thereafter is subject to a new Fee Schedule issued for the period beginning July 1, 2010.
2. The above rates include salary, overhead, administration, and profit. Other direct expenses, such as analyses of air, water and soil samples, reproduction, travel, subsistence, subcontractors, computers, and other reimbursable fees, are billed in accordance with the attached reimbursables fee schedule or at cost plus 15 percent for administration.
3. For special situations, such as expert court testimony, hourly rates for principals of the firm will be on an individually-negotiated basis.





**SCS ENGINEERS**  
**FEE SCHEDULE (Continued)**  
**(Effective July 1, 2009 through June 30, 2010)**  
**Page 2**

**SCS ENGINEERS**  
**REIMBURSABLES FEE SCHEDULE**  
**(Effective July 1, 2009 through June 30, 2010)**

<u>ADMINISTRATION/MILEAGE</u>	<u>Unit Cost</u> (\$)	<u>Unit</u>
<b>Reimbursable</b>		
Vehicle Mileage	0.55	mile
Truck Usage	\$70	day
Faxes	5 1	1 <sup>st</sup> Page each additional page
Reproduction (Xerox)	0.10	each
Reproduction (Color Copies)	1.25	each
CAD Usage	20	hour

<u>EQUIPMENT/FIELD SUPPLIES</u>	<u>Rate (\$)</u>	<u>Unit</u>
<b>Sampling Trailer, Field Equipped</b>	250	Day

Field-equipped sampling trailer includes equipment and supplies for soil and groundwater sampling, decontamination, health and safety, logs, packing and shipping, and miscellaneous uses.

**Calibration:**

Conductivity Standards *	1	Ounce
Isobutylene *	1	Liter
Methane in Air OVA Calibration Gas *	1	Liter
Pentane in Air *	1	Liter
pH Buffer Solutions (4,7,10) *	1	Ounce

**Decontamination Equipment:**

Brushes *	5	Day
Distilled/Deionized Water *	1	Gallon
Isopropyl Alcohol *	1	Ounce
Liquinox Soap Concentrate *	1	Ounce

**SCS ENGINEERS**  
**FEE SCHEDULE (Continued)**  
**(Effective July 1, 2009 through June 30, 2010)**  
**Page 3**

<u><b>EQUIPMENT/FIELD SUPPLIES</b></u>	<u><b>Rate (\$)</b></u>	<u><b>Unit</b></u>
Plastic Buckets *	5	Day
Poly Sheeting *	1	Square Foot
<b>Health and Safety Equipment:</b>		
Altair 4 Monitor	10/100	Day/Month
Half-face/Full-face Respirators	20	Day
Personal H2S Monitor	5/50	Day/Month
Respirator Cartridges	10	Each
Tyvec Coveralls	5	Each
<b>Hydrogeology Pumps:</b>		
Centrifugal Trash Pump *	15	Day
Grundfos Submersible Pump	25	Day
Peristaltic Pump *	15	Day
Whale Pump*	15	Day
<b>Indoor Air Quality Equipment:</b>		
Bore scope	50	Day
DryCalc DC-Lite Calibrator	25	Day
Moisture Encounter ME-1	40	Day
Protimeter Mini Moisture Meter	35	Day
SKC Air Sampling Pump and Calibrator	15	Day
TSI IAQ Calc Air Quality Meter	50	Day
Zefon International Bio-Sampler Pump	50	Day
<b>Industrial Hygiene Equipment:</b>		
CrowCon Gasman Meter – HF	25	Day
CrowCon Gasman Meter – H2S	25	Day
CrowCon Gasman Meter – SO2	25	Day
CrowCon Gasman Meter – NH3	25	Day
CrowCon Gasman Meter – CO	25	Day
DC-10 Noise Calibrator	25	Day
NoisePro DL	25	Day
TES1350 Sound Level Meter	25	Day
TSI VelociCalc/Micro Velometer	50	Day

**SCS ENGINEERS**  
**FEE SCHEDULE (Continued)**  
**(Effective July 1, 2009 through June 30, 2010)**  
**Page 4**

<b><u>EQUIPMENT/FIELD SUPPLIES</u></b>	<b><u>Rate (\$)</u></b>	<b><u>Unit</u></b>
Walchek II Air Screening System	50	Day
<b>Landfill Gas Field Equipment</b>		
Wellhead	15	Day
Blower on Skid	45	Day
<b>Media Measurement Equipment:</b>		
Conductivity Meter *	15	Day
Draeger Air Screening System *	20	Day
DO Meter*	15	Day
GasTech Gas Meter	50	Day
GEM Soil Gas Meter	125	Day
Heath Porta FID II OVA *	50	Day
Horiba U-10 Water Quality Meter	60	Day
Oil/Water Interface Probe	25	Day
pH Meter *	15	Day
Temperature Meter *	15	Day
Tier 2 Gauge	50	Day
Turbidity Meter *	15	Day
Water Level Indicator *	15	Day
YSI Cond/Temp/Salinity Meter *	50	Day
<b>Miscellaneous Equipment:</b>		
Absorbent Material	15	Cubic Foot
Air Compressor	60	Day
Cordless Saw	20	Day
Generator	60	Day
Global Positioning System (GPS)	45	Day
Hammer Drill	15	Day
Laser Level Surveying Package	75	Day
Power Inverter	10	Day
Regent Lighting*	5	Day
Ryobi Drill	7	Day
Silicon Tubing *	2	Foot
Teflon Tubing *	4	Foot

**SCS ENGINEERS**  
**FEE SCHEDULE (Continued)**  
**(Effective July 1, 2009 through June 30, 2010)**  
**Page 5**

<b><u>EQUIPMENT/FIELD SUPPLIES</u></b>	<b><u>Rate (\$)</u></b>	<b><u>Unit</u></b>
Traffic Control Cones *	5	Day
Transit Level Surveying Package	50	Day
Tygon Tubing *	2	Foot
Video Camera	50	Day
Walky Talkys*	10	Day
<b>Soil Sampling Equipment:</b>		
Hand Drill Auger System	25	Day
Sampling Tube - Acrylic, SS	5	Day
Slide Hammer *	10	Day
Bar Punch	10	Day
SS Bowls, Spoons, Scoops, etc. *	5	Day
SS Hand Auger - Bucket, Dutch *	10	Day
<b>Water Sampling Equipment:</b>		
QED Micropurge w/Flow Cell*	200	Day
Reusable Teflon Bailer/Lanyard *	5	Day

\* = Included in standard trailer rental.

**MANPOWER AND FEE ESTIMATE - ITEMS 10 AND 11, FINANCIAL ASSURANCE  
HARDEE COUNTY REGIONAL LANDFILL  
PHASE I CLOSURE**

**Task Key**

10 a - Closure Plan Report  
10 b - FDEP Coordination  
10 c - Bidding

10 d - Final Survey  
10 e - Construction Certification

11 a - Contract Management  
11 b - CQA

Personnel	Engineering					Professional Services		Total (hours)	Rate (\$)	Total (\$)
	10 a	10 b	10 c	10 d	10 e	11 a	11 b			
Office Director					4			4	200	800
Project Director	40	16	16		24	64	16	176	190	33,440
Project Manager	240	40	40		80	220	120	740	140	103,600
Senior Project Professional	240	40	24			80	90	474	115	54,510
Project Professional	160		24			40		224	95	21,280
Staff Professional	160							160	88	14,080
Associate Staff Professional				24		150		174	74	12,876
Designer	160	40	8		24	40		272	98	26,656
Drafter	80				32	24		136	72	9,792
Senior Technician			16			720	720	1,456	88	128,128
Secretarial/Clerical	26	16	8		8	40	24	122	55	6,710
Subtotal Labor (hours)	1,106	152	136	24	172	1,378	970	3,938		
Subtotal Labor (\$)	120,950	18,040	16,312	1,776	21,656	138,268	94,870			411,872
Reimbursables (See Table 2)	4,787	1,292	512	8,000	867	2,406	61,082			78,946
G&A, 15 percent reimbursables	718	194	77	1,200	130	361	9,162			11,842
Total reimbursables	5,505	1,486	589	9,200	997	2,767	70,244			90,788
Subtotal, Fee Estimate	126,455	19,526	16,901	10,976	22,653	141,035	165,114			502,660
Closure Application			Construction Costs							
Total = 145,981			Total = 356,679							
Total 10a,b,c,d,e					196,511	Total 11a&11b	306,149			

**MANPOWER AND FEE ESTIMATE - ITEMS 10 AND 11, FINANCIAL ASSURANCE  
HARDEE COUNTY REGIONAL LANDFILL  
PHASE I CLOSURE**

**REIMBURSABLES ESTIMATE (Task Amounts)**

**Task Key**

10 a - Closure Plan Report

10 d - Final Survey

11 a - Contract Management

Reimbursable

10 b - FDEP Coordination

10 e - Construction Certification

11 b - CQA

Total = 78,944

10 c - Bidding

Reimbursable	Unit Cost (\$)	Unit	10 a	10 b	10 c	10 d	10 e	11 a	11 b	Total Units	Total (\$)
Subconsultants, Topographic survey	1	LS				8,000				8,000	8,000
Subcontractors/Drillers	1	LS								0	0
Laboratory Services	1	EA							34,000	34,000	34,000
Vehicle Mileage (Auto)	0.55	MI	30	30	30		30			120	66
Vehicle Mileage (Truck)	0.60	MI								0	0
Company Vehicle	70	DA	2	2	1		1	10	10	26	1,820
Truck	70	DA			1				126	127	8,890
Parking & Tolls	1	LS								0	0
Meals	36	DA							182	182	6,552
Lodging, Hotel	55	DA							182	182	10,010
Telephone Calls	5	EA	35	10	5		5	25	75	155	775
Faxes	5	PG	20	7	5		5	25	25	87	435
Postage & Freight	10	LS	25	5	5		5	50	50	140	1,400
Reproduction (Xerox)	0.1	EA	1,550	500	200		500	1,560		4,310	431
Reproduction (Graphics) CADD	3	EA	250	50	25		50			375	1,125
Computer (CADD)	20	HR	160	40	8	0	24	40	0	272	5,440
Quality Assurance Testing	1	LS									0
Licenses/Permits	1	LS	0							0	0

# SCS ENGINEERS

Sheet \_\_\_\_\_ of \_\_\_\_\_

Client Hardee County	Project Permit Modification	Job No. 09199033.19
Subject Closing Costs Phase I	By DAW	Date 8/20/9009
	Checked	Date

## TASK

Calculate and provide reasoning for Items 10 and 11 of Estimated Closing Costs

## ATTACHMENTS

Manpower and Fee Estimate

Includes: Manpower and Fee Estimate by Task Dollars and Reimbursables Estimate.

## NOTE

For a 13.6 acre (surface area) closure, manpower and fee estimate is attached.

## Item 10 - Engineering

### **10 a - Closure Plan Report**

<u>Manpower</u>	<u>Hours</u>	<u>Reasoning</u>
Project Director	40	Project review
Project Manager	240	Oversee Closure Design, Review Specs & Project Management
Senior Project Professional	240	Closure design and specifications
Project Professional	160	Closure design and specifications
Staff Professional	160	Closure design and specifications
Designer	160	Complete and reproduce closure design drawings
Drafts Person	80	Complete and reproduce closure design drawings
Admin	26	Word process support

Reimbursables \$5,505.00 See attached breakdown for Phase I

### **10 b - FDEP Coordination**

<u>Manpower</u>	<u>Hours</u>	<u>Reasoning</u>
Project Director	16	Response to FDEP comments, checking & project management
Project Manager	40	Response to FDEP comments
Senior Project Professional	40	Response to FDEP comments
Designer	40	Complete and reproduce closure design drawings
Admin	16	Word process support

Reimbursables \$1,486.00 See attached breakdown for Phase I

# SCS ENGINEERS

Sheet \_\_\_\_\_ of \_\_\_\_\_

Client Hardee County	Project Permit Modification	Job No. 09199033.19
Subject Closing Costs Phase I	By DAW	Date 8/20/9009
	Checked	Date

## 10 c - Bidding

<u>Manpower</u>	<u>Hours</u>	<u>Reasoning</u>
Project Director	16	Project review
Project Manager	40	Response to bidder's questions and Project Management
Senior Project Professional	24	Response to bidder's questions
Project Professional	24	Response to bidder's questions
Senior Technician	16	Response to bidder's questions
Designer	8	Reproduce bid package drawings
Admin	8	Reproduce and assemble bid package
Reimbursables	\$589.00	See attached breakdown for Phase I

## 10 d - Final Survey

<u>Manpower</u>	<u>Hours</u>	<u>Reasoning</u>
Staff Engineer	24	Coordination with surveyor
Reimbursables	\$9,200.00	See attached breakdown for Phase I

## 10 e - Construction Certification

<u>Manpower</u>	<u>Hours</u>	<u>Reasoning</u>
Office Director	4	Final review of certification report
Project Director	24	Review of certification report
Project Manager	80	Complete certification report, Project Management
Designer	24	Produce record drawings
Drafts Person	32	Produce record drawings
Admin	8	Production support
Reimbursables	\$997.00	See attached breakdown for Phase I



# SCS ENGINEERS

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Client Hardee County	Project Permit Modification	Job No. 09199033.19
Subject Closing Costs Phase I	By DAW	Date 8/20/9009
	Checked	Date

## Item 11 - Professional Services

### **11 a - Contract Management**

#### **Full-time during construction**

Project Director	60	Project review
Project Manager	220	Response to contractor's questions and Project Management
Senior Project Professional	80	Response to contractor's questions
Project Professional	40	Response to contractor's questions
Associate Staff Professional	150	Response to contractor's questions
Designer	40	Project drawings
Drafts Person	24	Project drawings
Admin	40	Production support
Resident Technician	1,560	On site full-time

Reimbursables \$2,767.00 See attached breakdown for Phase I

### **11 b - Quality Assurance**

#### **Full-time during construction**

To cover liner, manpower and testing assume \$2500/acre of closure  
 $\$2500/\text{acre} \times 12.5 \text{ acres} = \$34,000.00$

Project Director	16	Project review
Project Manager	120	Response to contractor's questions and Project Management
Senior Project Professional	90	Response to contractor's questions
Resident Technician	720	On site full-time
Admin	24	Production support

Reimbursables \$70,244.00 See attached breakdown for Phase I

TOTAL PHASE I CLOSURE COST = \$502,660.00

TOTAL PHASE II SECTION I CLOSURE COST = \$368,786.00

**MANPOWER AND FEE ESTIMATE - ITEMS 10 AND 11, FINANCIAL ASSURANCE  
HARDEE COUNTY REGIONAL LANDFILL  
PHASE II SECTION I CLOSURE**

**Task Key**

10 a - Closure Plan Report  
10 b - FDEP Coordination  
10 c - Bidding

10 d - Final Survey  
10 e - Construction Certification

11 a - Contract Management  
11 b - CQA

Personnel	Engineering					Professional Services		Total (hours)	Rate (\$)	Total (\$)
	10 a	10 b	10 c	10 d	10 e	11 a	11 b			
Office Director					4			4	200	800
Project Director	30	16	16			64	16	142	190	26,980
Project Manager	200	16	40		40	200	100	596	140	83,440
Senior Project Professional	200	8	24			60	60	352	115	40,480
Project Professional	160		24			20	20	224	95	21,280
Staff Professional	160							160	88	14,080
Associate Staff Professional				24				24	74	1,776
Designer	160		8		16	40		224	98	21,952
Drafter	80				24	24		128	72	9,216
Senior Technician			16		40	480	480	1,016	88	89,408
Secretarial/Clerical	32	2	8		8	40	16	106	55	5,830
Subtotal Labor (hours)	992	26	120	24	132	864	656	2,976		
Subtotal Labor (\$)	109,180	6,310	16,312	1,776	13,656	99,048	68,960			315,242
Reimbursables (See Table 2)	4,787	492	512	8,000	707	2,406	29,656			46,560
G&A, 15 percent reimbursables	718	74	77	1,200	106	361	4,448			6,984
Total reimbursables	5,505	566	589	9,200	813	2,767	34,104			53,544
Subtotal, Fee Estimate	114,685	6,876	16,901	10,976	14,469	101,815	103,064			368,786
Closure Application		Construction Costs								
Total =		121,561				Total =		247,225		
				Total 10a,b,c,d,e		163,907		Total 11a&11b		204,879

**MANPOWER AND FEE ESTIMATE - ITEMS 10 AND 11, FINANCIAL ASSURANCE  
HARDEE COUNTY REGIONAL LANDFILL  
PHASE II SECTION I CLOSURE**

**REIMBURSABLES ESTIMATE (Task Amounts)**

**Task Key**

10 a - Closure Plan Report

10 d - Final Survey

11 a - Contract Management

Reimbursable

10 b - FDEP Coordination

10 e - Construction Certification

11 b - CQA

Total =

46,558

10 c - Bidding

Reimbursable	Unit Cost (\$)	Unit	10 a	10 b	10 c	10 d	10 e	11 a	11 b	Total Units	Total (\$)
Subconsultants, Topographic survey	1	LS				8,000				8,000	8,000
Subcontractors/Drillers	1	LS								0	0
Laboratory Services	1	EA							12,500	12,500	12,500
Vehicle Mileage (Auto)	0.55	MI	30	30	30		30			120	66
Vehicle Mileage (Truck)	0.60	MI								0	0
Company Vehicle	70	DA	2	2	1		1	10	10	26	1,820
Truck	70	DA			1				96	97	6,790
Parking & Tolls	1	LS								0	0
Meals	36	DA							96	96	3,456
Lodging, Hotel	55	DA							96	96	5,280
Telephone Calls	5	EA	35	10	5		5	25	75	155	775
Faxes	5	PG	20	7	5		5	25	25	87	435
Postage & Freight	10	LS	25	5	5		5	50	50	140	1,400
Reproduction (Xerox)	0.1	EA	1,550	500	200		500	1,560		4,310	431
Reproduction (Graphics) CADD	3	EA	250	50	25		50			375	1,125
Computer (CADD)	20	HR	160	0	8	0	16	40	0	224	4,480
Quality Assurance Testing	1	LS									0
Licenses/Permits	1	LS	0							0	0

# SCS ENGINEERS

Sheet \_\_\_\_\_ of \_\_\_\_\_

Client Hardee County	Project Permit Modification	Job No. 09199033.19
Subject Closing Costs Phase II Section I	By DAW	Date 8/20/2009
	Checked	Date

## TASK

Calculate and provide reasoning for Items 10 and 11 of Estimated Closing Costs

## ATTACHMENTS

Manpower and Fee Estimate

Includes: Manpower and Fee Estimate by Task Dollars and Reimbursables Estimate.

## NOTE

For a 5 acre (surface area) closure, manpower and fee estimate is attached.

## Item 10 - Engineering

### **10 a - Closure Plan Report**

<u>Manpower</u>	<u>Hours</u>	<u>Reasoning</u>
Project Director	30	Project review
Project Manager	200	Oversee Closure Design, Review Specs & Project Management
Senior Project Professional	200	Closure design and specifications
Project Professional	160	Closure design and specifications
Staff Professional	160	Closure design and specifications
Designer	160	Complete and reproduce closure design drawings
Drafts Person	80	Complete and reproduce closure design drawings
Admin	32	Word process support

Reimbursables \$5,505.00 See attached breakdown for Phase II Section I

### **10 b - FDEP Coordination**

<u>Manpower</u>	<u>Hours</u>	<u>Reasoning</u>
Project Director	16	Response to FDEP comments, checking & project management
Project Manager	16	Response to FDEP comments
Senior Project Professional	8	Response to FDEP comments
Admin	2	Word process support

Reimbursables \$566.00 See attached breakdown for Phase II Section I

# SCS ENGINEERS

Sheet \_\_\_\_\_ of \_\_\_\_\_

Client Hardee County	Project Permit Modification	Job No. 09199033.19
Subject Closing Costs Phase II Section I	By DAW	Date 8/20/2009
	Checked	Date

## 10 c - Bidding

<u>Manpower</u>	<u>Hours</u>	<u>Reasoning</u>
Project Director	16	Project review
Project Manager	40	Response to bidder's questions and Project Management
Senior Project Professional	24	Response to bidder's questions
Project Professional	24	Response to bidder's questions
Senior Technician	16	Response to bidder's questions
Designer	8	Reproduce bid package drawings
Admin	8	Reproduce and assemble bid package

Reimbursables \$589.00 See attached breakdown for Phase II Section I

## 10 d - Final Survey

<u>Manpower</u>	<u>Hours</u>	<u>Reasoning</u>
Staff Engineer	24	Coordination with surveyor

Reimbursables \$9,200.00 See attached breakdown for Phase II Section I

## 10 e - Construction Certification

<u>Manpower</u>	<u>Hours</u>	<u>Reasoning</u>
Office Director	4	Final review of certification report
Project Manager	40	Complete certification report, Project Management
Designer	16	Produce record drawings
Drafts Person	24	Produce record drawings
Senior Technician	40	Complete certification report
Admin	8	Production support

Reimbursables \$813.00 See attached breakdown for Phase II Section I

# SCS ENGINEERS

Sheet \_\_\_\_\_ of \_\_\_\_\_

Client Hardee County	Project Permit Modification	Job No. 09199033.19
Subject Closing Costs Phase II Section I	By DAW	Date 8/20/2009
	Checked	Date

## Item 11 - Professional Services

### 11 a - Contract Management

#### Full-time during construction

Project Director	64	Project review
Project Manager	200	Response to contractor's questions and Project Management
Senior Project Professional	60	Response to contractor's questions
Project Professional	20	Response to contractor's questions
Associate Staff Professional		Response to contractor's questions
Designer	40	Project drawings
Drafts Person	24	Project drawings
Admin	40	Production support
Resident Technician	480	On site full-time

Reimbursables \$2,767.00 See attached breakdown for Phase II Section I

### 11 b - Quality Assurance

#### Full-time during construction

To cover liner, manpower and testing assume \$2500/acre of closure

\$2500/acre x 5 acres = \$12,500.00

Project Director	16	Project review
Project Manager	100	Response to contractor's questions and Project Management
Senior Project Professional	60	Response to contractor's questions
Resident Technician	480	On site full-time
Project Professional	20	Response to contractor's questions
Admin	16	Production support

Reimbursables \$34,104.00 See attached breakdown for Phase II Section I

TOTAL PHASE I CLOSURE COST = \$502,660.00

TOTAL PHASE II SECTION I CLOSURE COST = \$368,786.00



# 32 01 Operation and Maintenance of Exterior Improvements

## 32 01 90 - Operation and Maintenance of Planting

REFERENCE 11

32 01 90.19 Mowing		Crew	Daily Output	Labor-Hours	Unit	Material	2009 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
4050	Power mower, 18" - 22"	1 Clab	65	123	M.S.F.		3.89		3.89	6.05
4100	22" - 30"	↓	110	073	↓		2.30		2.30	3.56
4150	30" - 32"	↓	140	057	↓		1.81		1.81	2.80
4160	Riding mower, 36" - 44"	B-66	300	027	↓		1.04	.77	1.81	2.42
4170	48" - 58"	"	480	.017	↓		.65	.48	1.13	1.51
4175	Mowing with tractor & attachments									
4180	3 gang reel, 7'	B-66	930	.009	M.S.F.		.34	.25	.59	.77
4190	5 gang reel, 12'	↓	1200	.007	↓		.26	.19	.45	.60
4200	Cutter or sickle-bar, 5', rough terrain	↓	210	038	↓		1.49	1.10	2.59	3.45
4210	Cutter or sickle-bar, 5', smooth terrain	↓	340	024	↓		.92	.68	1.60	2.13
4220	Drainage channel, 5' sickle bar	↓	5	1.600	Mile		62.50	.46	108.50	145
4250	Lawnmower, rotary type, sharpen (all sizes)	1 Clab	10	800	Eq.		25.50		25.50	39
4260	Repair or replace part	↓	7	1.143	"		36		36	56
5000	Edge trimming with weed whacker	↓	5760	.001	L.F.		.04		.04	.07

## 32 01 90.23 Pruning

PRUNING		Crew	Daily Output	Labor-Hours	Unit	Material	2009 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
0010	PRUNING									
0020	1-1/2" caliper	1 Clab	84	.095	Eq.		3.01		3.01	4.67
0030	2" caliper	↓	70	1.14	↓		3.61		3.61	5.60
0040	2-1/2" caliper	↓	50	1.60	↓		5.05		5.05	7.85
0050	3" caliper	↓	30	2.67	↓		8.45		8.45	13.05
0060	4" caliper, by hand	2 Clab	21	.762	↓		24		24	37.50
0070	Aerial lift equipment	B-85	38	1.053	↓		35.50	23	58.50	80
0100	6" caliper, by hand	2 Clab	12	1.333	↓		42		42	65.50
0110	Aerial lift equipment	B-85	20	.2	↓		67	43.50	110.50	151
0200	9" caliper, by hand	2 Clab	7.50	2.133	↓		67.50		67.50	105
0210	Aerial lift equipment	B-85	12.50	3.200	↓		108	70	178	242
0300	12" caliper, by hand	2 Clab	6.50	2.462	↓		78		78	121
0310	Aerial lift equipment	B-85	10.80	3.704	↓		125	81	206	280
0400	18" caliper by hand	2 Clab	5.60	2.857	↓		90.50		90.50	140
0410	Aerial lift equipment	B-85	9.30	4.301	↓		145	94	239	325
0500	24" caliper, by hand	2 Clab	4.60	3.478	↓		110		110	170
0510	Aerial lift equipment	B-85	7.70	5.195	↓		175	113	288	395
0600	30" caliper, by hand	2 Clab	3.70	4.324	↓		137		137	212
0610	Aerial lift equipment	B-85	6.20	6.452	↓		217	141	358	490
0700	36" caliper, by hand	2 Clab	2.70	5.926	↓		187		187	290
0710	Aerial lift equipment	B-85	4.50	8.889	↓		299	194	493	675
0800	48" caliper, by hand	2 Clab	1.70	9.412	↓		297		297	460
0810	Aerial lift equipment	B-85	2.80	14.286	↓		480	310	790	1,075

## 32 01 90.24 Shrub Pruning

SHRUB PRUNING		Crew	Daily Output	Labor-Hours	Unit	Material	2009 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
6700	Prune, shrub bed	1 Clab	7	1.143	M.S.F.		36		36	56
6710	Shrub under 3' height	↓	190	.042	Eq.		1.33		1.33	2.06
6720	4' height	↓	90	.089	↓		2.81		2.81	4.36
6730	Over 6'	↓	50	.160	↓		5.05		5.05	7.85
7350	Prune trees from ground	↓	20	.400	↓		12.65		12.65	19.60
7360	High work	↓	8	1	↓		31.50		31.50	49

## 32 01 90.26 Watering

WATERING		Crew	Daily Output	Labor-Hours	Unit	Material	2009 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
4900	Water lawn or planting bed with hose, 1" of water	1 Clab	16	.500	M.S.F.		15.80		15.80	24.50
4910	50' soaker hoses, in place	↓	82	.098	↓		3.08		3.08	4.78
4920	60' soaker hoses, in place	↓	89	.090	↓		2.84		2.84	4.40
7500	Water trees or shrubs, under 1" caliper	↓	32	.250	Eq.		7.90		7.90	12.25



# 32 01 Operation and Maintenance of Exterior Improvements

## 32 01 30 - Operation and Maintenance of Site Improvements

REFERENCE (12)

### 32 01 30.10 Site Maintenance

		Crew	Daily Output	Labor-Hours	Unit	Material	2009 Bare Costs		Total	Total Ind O&M
							Labor	Equipment		
3200	Using gas powered edger at walks	1 Club	88	.091	C.L.F.		2.87		2.87	4.45
3250	At planting beds		24	.333	↓		10.55		10.55	16.35
3260	Vacuum, 30" gas, outdoors with hose		96	.083	M.L.F.		2.63		2.63	4.00
3400	Weed lawn, by hand		3	2.667	M.S.F.		84.50		84.50	131
4500	Rake leaves or lawn, by hand		7.50	1.067	↓		33.50		33.50	52.50
4510	Power rake		45	.178	↓		5.60		5.60	8.70
4700	Seeding lawn, see Div. 32 92 19.14									
4750	Sodding, see Div. 32 92 23.10									
5900	Road & walk maintenance									
5915	De-icing roads and walks									
5920	Calcium Chloride in truckload lots see Div. 31 32 13.30									
6000	Ice melting comp., 90% Calc. Chlor., effec. to -30° F									
6010	50-80 lbs. poly bags, med. applic. 12 lbs./M.S.F. by hand	1 Club	60	.133	M.S.F.	18.60	4.21		22.81	27
6050	With hand operated rotary spreader		110	.073		18.60	2.30		20.90	24
6100	Rock salt, med. applic. on road & walkway, by hand		60	.133	↓	4.66	4.21		8.87	11.70
6110	With hand operated rotary spreader		110	.073	↓	4.66	2.30		6.96	8.70
6600	Shrub maintenance									
6640	Shrub bed fertilize dry granular 3 lbs./M.S.F.	1 Club	85	.094	M.S.F.	1.11	2.97		4.08	5.85
6800	Weed, by handhoe		8	1	↓		31.50		31.50	49
6810	Spray out		32	.250	↓		7.90		7.90	12.25
6820	Spray after mulch		48	.167	↓		5.25		5.25	8.10
7000	Highway R.O.W. mowing per month				Mile				27.90%	31%
7050	Highway R.O.W. mowing plus herbicides program, per month								15.75%	17.50
7100	Tree maintenance									
7140	Clear and grub trees, see Div. 31 11 10.10									
7160	Cutting and piling trees, see Div. 31 13 13.20									
7200	Fertilize, tablets, slow release, 30 gram/tree	1 Club	100	.080	Eq.	.43	2.53		2.96	4.39
7280	Guying, including stakes, guy wire & wrap, see Div. 32 94 50.10									
7300	Planting trees, Deciduous, in prep. beds, see Div. 32 93 43.10									
7400	Removal trees see Div. 32 96 43.20									
7420	Pest control, spray	1 Club	24	.333	Eq.	19.80	10.55		30.35	36.50
7430	Systemic		48	.167	"	19.95	5.25		25.20	30

## 32 01 90 - Operation and Maintenance of Planting

### 32 01 90.13 Fertilizing

0010	FERTILIZING									
0100	Dry granular, 4# /M.S.F. hand spread	1 Club	24	.333	M.S.F.	2.22	10.55		12.77	18.80
0110	Push rotary		140	.057	"	2.22	1.81		4.03	5.25
0112	Push rotary, per 1076 feet squared		130	.062	Eq.	2.22	1.94		4.16	5.45
0120	Tractor towed spreader, 8'	B-66	500	.016	M.S.F.	2.22	.62	.46	3.30	3.89
0130	12' spread		800	.010	↓	2.22	.39	.29	2.90	3.35
0140	Truck whirlwind spreader		1200	.007	↓	2.22	.26	.19	2.67	3.04
0180	Water soluble, hydro spread, 1.5 # /MSF	B-64	600	.027	↓	2.25	.83	.55	3.63	4.38
0190	Add for weed control				↓	.38			.38	.42

### 32 01 90.19 Mowing

0010	MOWING									
1650	Mowing brush, tractor with rotary mower									
1660	Light density	B-84	22	.364	M.S.F.		15.05	12.45	27.50	36
1670	Medium density		13	.615	↓		25.50	21	46.50	61.50
1680	Heavy density		9	.889	↓		37	30.50	67.50	88.50
2000	Mowing, brush/grass, tractor, rotary mower, highway/airport median		13	.615	↓		25.50	21	46.50	61.50
2010	Traffic safety flashing truck for highway/airport median mowing	A-2B	1	8	Day		248	194	442	595
4000	Lawn mowing, improved areas, 16" hand push	1 Club	48	.167	M.S.F.		5.25		5.25	8.15

# 32 18 Athletic and Recreational Surfacing

## 32 18 23 – Athletic Surfacing

REFERENCE (13)

### 32 18 23.33 Running Track Surfacing

		Crew	Daily Output	Labor-Hours	Unit	Material	2009 Bare Costs Labor	Equipment	Total	Total Incl O&P
0010	<b>RUNNING TRACK SURFACING</b>									
0020	Running track, asphalt, incl base, 3" thick	B-37	300	.160	S.Y.	20.50	5.30	.46	26.26	31
0100	Surface, latex rubber system, 3/8" thick, black	B-20	125	.192		9.30	6.80		16.10	20.50
0150	Colors		125	.192		16.50	6.80		23.30	28.50
0300	Urethane rubber system, 3/8" thick, black		120	.200		25	7.05		32.05	38
0400	Color coating		115	.209		30.50	7.40		37.90	45

## 32 31 Fences and Gates

### 32 31 13 – Chain Link Fences and Gates

#### 32 31 13.20 Fence, Chain Link Industrial

0010	<b>FENCE, CHAIN LINK INDUSTRIAL</b>									
0011	Schedule 40, including concrete									
0020	3 strands barb wire, 2" post @ 10' O.C., set in concrete, 6' H									
0200	9 ga. wire, galv. steel, in concrete	B-80C	240	.100	L.F.	15.25	3.14	.84	19.23	22.50
0300	Aluminized steel		240	.100		19.55	3.14	.84	23.53	27.50
0500	6 ga. wire, galv. steel		240	.100		24	3.14	.84	27.98	32.50
0600	Aluminized steel		240	.100		27.50	3.14	.84	31.48	36
0800	6 ga. wire, 6' high but omit barbed wire, galv. steel		250	.096		23	3.01	.81	26.82	31
0900	Aluminized steel, in concrete		250	.096		32.50	3.01	.81	36.32	41.50
0920	8" H, 6 ga. wire, 2 1/2" line post, galv. steel, in concrete		180	.133		37	4.18	1.12	42.30	48.50
0940	Aluminized steel, in concrete		180	.133		45.50	4.18	1.12	50.80	57.50
1400	Gate for 6' high fence, 1-5/8" frame, 3' wide, galv. steel		10	2.400	Ea.	177	75.50	20	272.50	335
1500	Aluminized steel, in concrete		10	2.400	"	218	75.50	20	313.50	380
2000	5'-0" high fence, 9 ga., no barbed wire, 2" line post, in concrete									
2010	10' O.C., 1-5/8" top rail, in concrete									
2100	Galvanized steel, in concrete	B-80C	300	.080	L.F.	13	2.51	.67	16.18	18.90
2200	Aluminized steel, in concrete		300	.080		15.65	2.51	.67	18.83	22
2400	Gate, 4' wide, 5' high, 2" frame, galv. steel, in concrete		10	2.400	Ea.	191	75.50	20	286.50	350
2500	Aluminized steel, in concrete		10	2.400	"	214	75.50	20	309.50	375
3100	Overhead slide gate, chain link, 6' high, 10-18' wide, in concrete		38	.632	L.F.	167	19.80	5.30	192.10	219
3105	8' high, in concrete	B-80	30	1.067		165	36	22	223	262
3108	10' high, in concrete		24	1.333		179	45	27.50	251.50	296
3110	Cantilever type, in concrete		48	.667		77.50	22.50	13.65	113.65	135
3120	8' high, in concrete		24	1.333		111	45	27.50	183.50	221
3130	10' high, in concrete		18	1.778		131	60	36.50	227.50	276
5000	Double swing gates, incl. posts & hardware, in concrete									
5010	5' high, 12' opening, in concrete	B-80C	3.40	7.059	Opng	495	222	59.50	776.50	955
5020	20' opening, in concrete		2.80	8.571		675	269	72	1,016	1,250
5060	6' high, 12' opening, in concrete		3.20	7.500		835	235	63	1,133	1,350
5070	20' opening, in concrete		2.60	9.231		1,150	290	77.50	1,517.50	1,800
5080	8' high, 12' opening, in concrete	B-80	2.13	15.002		1,300	505	305	2,110	2,550
5090	20' opening, in concrete		1.45	22.069		1,700	745	450	2,895	3,525
5100	10' high, 12' opening, in concrete		1.31	24.427		1,625	825	500	2,950	3,625
5110	20' opening, in concrete		1.03	31.068		2,450	1,050	635	4,135	4,975
5120	12' high, 12' opening, in concrete		1.05	30.476		2,375	1,025	625	4,025	4,875
5130	20' opening, in concrete		.85	37.647		3,050	1,275	770	5,095	6,150
5190	For aluminized steel add					20%				
7055	Braces, galv. steel	B-80A	960	.025	L.F.	2.15	.79	.25	3.19	3.88
7056	Aluminized steel	"	960	.025	"	2.58	.79	.25	3.62	4.35

#### 32 31 13.25 Fence, Chain Link Residential

0010	<b>FENCE, CHAIN LINK RESIDENTIAL</b>									
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# 32 31 Fences and Gates

## 32 31 13 – Chain Link Fences and Gates

REFERENCE (14)

32 31 13.40 Fence, Fabric and Accessories		Daily Crew	Labor- Output	Hours	Unit	Material	2009 Bare Costs			Total	Total Ind O&P
							Labor	Equipment			
1200	6'	B-80A	266	.090	LT	8.10	2.85	.91	11.86	14.30	
1250	7'		247	.097		11.05	3.07	.98	15.10	18	
1300	8'		228	.105		13.90	3.33	1.06	18.29	21.50	
1400	9 ga., fused, 4'		304	.079		6.10	2.49	.80	9.39	11.45	
1450	5'		285	.084		7.25	2.66	.85	10.76	13	
1500	6'		266	.090		8.60	2.85	.91	12.36	14.90	
1550	7'		247	.097		10	3.07	.98	14.05	16.85	
1600	8'		228	.105		14.40	3.33	1.06	18.79	22	
1650	Barbed wire, galv., cost per strand		2280	.011		.15	.33	.11	.59	.81	
1700	Vinyl coated		2280	.011	↓	.27	.33	.11	.71	.94	
1750	Extension arms, 3 strands		143	.168	Ea.	9.10	5.30	1.70	16.10	20	
1800	6 strands, 2-3/8"		119	.202	↓	11.65	6.35	2.04	20.04	25	
1850	Eye tops, 2-3/8"		143	.168	↓	3.92	5.30	1.70	10.92	14.40	
1900	Top rail, incl. tie wires, 1-5/8", galv.		912	.026	LT	3.43	.83	.27	4.53	5.35	
1950	Vinyl coated		912	.026		5.60	.83	.27	6.70	7.75	
2100	Rail, middle/bottom, w/tie wire, 1-5/8", galv.		912	.026		3.02	.83	.27	4.12	4.90	
2150	Vinyl coated		912	.026		4.33	.83	.27	5.43	6.35	
2200	Reinforcing wire, coiled spring, 7 ga. galv.		2279	.011	↓	.19	.33	.11	.63	.85	
2250	9 ga., vinyl coated	↓	2282	.011	↓	.28	.33	.11	.72	.95	

## 32 31 23 – Plastic Fences and Gates

### 32 31 23.10 Fence, Vinyl

0010	FENCE, VINYL										
0011	White, steel reinforced, stainless steel fasteners										
0020	Picket, 4" x 4" posts @ 6' - 0" OC, 3' high	B-1	140	.171	LT	19.85	5.55		25.40	30.50	
0030	4' high		130	.185		23	5.95		28.95	34.50	
0040	5' high		120	.200		26	6.45		32.45	39	
0100	Board (semi-privacy), 5" x 5" posts @ 7' - 6" OC, 5' high		130	.185		27.50	5.95		33.45	39.50	
0120	6' high		125	.192		31	6.20		37.20	43.50	
0200	Basketweave, 5" x 5" posts @ 7' - 6" OC, 5' high		160	.150		24	4.84		28.84	34	
0220	6' high		150	.160		28.50	5.15		33.65	39.50	
0300	Privacy, 5" x 5" posts @ 7' - 6" OC, 5' high		130	.185		29.50	5.95		35.45	42	
0320	6' high		150	.160	↓	33.50	5.15		38.65	45	
0350	Gate, 5' high		9	2.667	Ea.	415	86		501	590	
0360	6' high		9	2.667	↓	425	86		511	600	
0400	For posts set in concrete, add	↓	25	.960	↓	8.45	31		39.45	57.50	

## 32 31 26 – Wire Fences and Gates

### 32 31 26.10 Fences, Misc. Metal

0010	FENCES, MISC. METAL										
0012	Chicken wire, posts @ 4', 1" mesh, 4' high	B-80C	410	.059	LT	2.16	1.84	.49	4.49	5.75	
0100	2" mesh, 6' high		350	.069		1.95	2.15	.58	4.68	6.10	
0200	Galv. steel, 12 ga., 2" x 4" mesh, posts 5' O.C., 3' high		300	.080		3.12	2.51	.67	6.30	8.05	
0300	5' high		300	.080	↓	4.16	2.51	.67	7.34	9.20	
0400	14 ga., 1" x 2" mesh, 3' high		300	.080	↓	3.31	2.51	.67	6.49	8.25	
0500	5' high	↓	300	.080	↓	4.58	2.51	.67	7.76	9.65	
1000	Kennel fencing, 1-1/2" mesh, 6' long, 3'-6" wide, 6'-2" high	2 Clab	4	4	Ea.	520	126		646	765	
1050	12' long		4	4	↓	625	126		751	880	
1200	Top covers, 1-1/2" mesh, 6' long		15	1.067	↓	106	33.50		139.50	169	
1250	12' long		12	1.333	↓	169	42		211	252	
4500	Security fence, prison grade, set in concrete, 12' high	B-80	25	1.280	LT	46	43.50	.26	115.50	146	
4600	16' high	"	20	1.600	"	55	54	32.50	141.50	180	

**Warner, Drew**

---

**From:** Stephen Knauss [stephenk@nodarse.com]  
**Sent:** Monday, August 31, 2009 2:20 PM  
**To:** Warner, Drew  
**Subject:** RE: Hardee County Landfill - Monitoring Well Installation Price Quote

Drew,

We will be able to honor the fees noted in our January 8, 2008 proposal. Do you know when work may proceed so that we may plan for it?

Stephen C. Knauss, P.E.  
Senior Geotechnical/Materials Engineer



504 East Tyler Street • Tampa, FL 33602  
Direct) 813-221-0050 x115 • Cell) 813-376-1273  
[stephenk@nodarse.com](mailto:stephenk@nodarse.com) • [www.nodarse.com](http://www.nodarse.com)

---

**From:** Warner, Drew [mailto:DWarner@scsengineers.com]  
**Sent:** Wednesday, August 26, 2009 3:15 PM  
**To:** Stephen Knauss  
**Subject:** Hardee County Landfill - Monitoring Well Installation Price Quote

Stephen:

Thank you very much for everything. The previous proposal is attached. My contact information is given below. Feel free to contact me if you have any questions. Thanks again.

*Drew A. Warner, E.I.*  
*Staff Professional*  
*SCS Engineers*  
*4041 Park Oaks Blvd., Suite 100*  
*Tampa, Florida 33610*  
*(813) 621-0080*  
*Fax (813) 623-6757*  
*[dwarner@scsengineers.com](mailto:dwarner@scsengineers.com)*



January 8, 2008

N&A Project No. 04-07-0048-302

Mr. Shane R. Fischer, P.E.

**SCS Engineers**

4041 Park Oaks Blvd., Suite 100

Tampa, FL 33610

**Proposal for Monitoring Well Installation and Abandonment  
Hardee County Landfill Phase II Section I  
Hardee County, Florida**

Mr. Fischer:

Nodarse & Associates, Inc. (N&A) is pleased to present this proposal for Monitoring Well Installation and Abandonment for the referenced project. The following briefly outlines the subtasks involved to perform the proposed scope of work.

**PROPOSED SCOPE OF WORK**

**Field Activities -- Monitoring Well Installation:**

Two (2) replacement groundwater monitoring wells are proposed due to excessive turbidity in the collected groundwater samples from monitoring well MW-10 and MW-12. To minimize turbidity of groundwater in these proposed monitoring wells, N&A proposes the use of a finer slotted well screen and corresponding sand pack, and over-development. Additionally, the proposed well depths have been increased to 20 feet below land surface (bls). It is understood well design could change after particle size determination has been conducted by SCS Engineers.

The proposed monitoring wells will be installed with a minimum, 4.25-inch inner diameter hollow stem auger. The wells will be constructed using 10 feet of 2-inch diameter, 0.006-inch factory slotted Schedule 40 PVC well screen and approximately 10-feet of solid PVC riser. Following installation of the well assembly, the annular space of the screened interval will be packed with 30/65 silica sand from the bottom of the well to approximately 1.0 foot above the well screen. The remaining annular space will be sealed to grade with Type II neat cement grout and completed with a concrete pad and an aluminum riser type locking cover. Three bollards, consisting of 4-inch diameter Schedule 40 PVC filled with concrete, will be constructed around each monitoring well.

Due to the known fines of the formation, and in an effort to minimize turbidity of the sampled groundwater, well development will include repeated swabbing and over-pumping. This process will be repeated until turbidity is minimized, and is less than 5 NTUs. For the purpose of this proposal, it has been assumed that two (2) sets of well development equipment will be available on-site so that well development of the two

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monitoring wells may occur concurrently. Additional hours for well development over-sight are included in this proposal, with the recommendation of additional well development proposed the day after well installation. However, SCS Engineers will only be invoiced for the actual services provided based upon the conditions of the site.

Drill cuttings and development water will not be drummed but will be spread on-site. N&A personnel will provide over sight during well construction activities and document general lithology, well installation and development activities.

**Field Activities – Monitoring Well Abandonment:**

N&A proposes to abandon the 2 existing monitoring wells, MW-10 and MW-12 at the site. The monitoring wells are 2-inch in diameter and 12 feet and 17 feet in depth, respectively.

The wells will be abandoned in accordance with the Rules of the Southwest Florida Water Management District (SWFWMD), Chapter 40E-3.531, Florida Administrative Code (FAC) and will be plugged by filling them from bottom to top with grout. This work will be conducted by a licensed water well contractor. Applications to abandon the wells will be submitted the SWFWMD and once the wells are plugged the final Well Completion Reports will be submitted to the SWFWMD.

**Summary Letter Report:**

Once all activities as outlined above have been completed, a Summary Letter Report will be prepared, to include a description of the well construction field activities and the well abandonment activities. Copies of the well completion reports (including documentation of monitoring well abandonment) will also be included.

**LIMITATIONS AND ASSUMPTIONS**

The work plan used in generating the cost structure for this proposal assumes the following:

1. N&A personnel will have unimpeded and immediate access to the subject site and to any and all work areas on the subject site deemed necessary to complete the scope of work.
2. A representative will be available to accompany N&A personnel during on-site fieldwork if requested by the Client, the Property Owner, or N&A.
3. Sunshine One-Call does not perform locations for on-site utilities, but is limited to locating utility conduits buried within the public right-of-way. N&A will use the standard level of care, but not limited to hand-dig to five feet below land surface, site observations, and interview site operators to determine utility locations in avoiding damage to underground utilities. However, N&A will not be responsible for damage to utilities located on private property.

**ESTIMATED COSTS**

N&A is prepared to implement the above generally outlined scope of services immediately upon your notice to proceed, for an estimated lump sum fee of \$6,604.00. The client will be invoiced for the actual services provided based upon the conditions of the site. Additional work required beyond the scope of services included in this proposal (e.g., access problems, weather delays, variation in the anticipated depth to groundwater, or other such factors beyond N&A's control) will be invoiced on a time and expense basis in



15

accordance with the unit rates identified in **Attachment A**. The client will be contacted for authorization should additional work beyond the estimated budget be required to complete the scope of services.

### CLOSURE

To authorize us to proceed with this project, please sign the attached agreement. Authorization should be indicated by the person or firm responsible for payment of our invoice. Please note the attached Agreement sheet forms a part of this proposal and that our terms are "Net 30 Days."

N&A appreciates the opportunity to submit this proposal. Should you have any questions concerning this proposal, please do not hesitate to contact us.

Sincerely,

**NODARSE & ASSOCIATES, INC.**

A handwritten signature in dark ink, appearing to read 'Donna M. Cline', is written over the typed name.

Donna M. Cline, P.E.  
Environmental Department Manager  
West Region

A handwritten signature in dark ink, appearing to read 'Yian Mei Lo', is written over the typed name.

Yian Mei Lo, E.I.T.  
Environmental Project Engineer

Distribution: (2) Addressee  
(1) File

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ESTIMATED SCOPE OF SERVICES  
WELL INSTALLATION AND ABANDONMENT  
Hardee County Landfill Phase II Section I  
Wauchula, Hardee County, Florida  
N&A PROPOSAL NO: 04-07-0048-302

(15)

DESCRIPTION	EST. QTY	UNIT	RATE	TOTAL
<b>I. Equipment Mobilization</b>				
A. Drill Rig	1	Each	\$ 420.00	\$ 420.00
		<b>Subtotal Equipment Mobilization:</b>		<b>\$ 420.00</b>
<b>II. Monitoring Well Installation</b>				
A. 2" Diameter Monitoring Wells				
-- Locking Cover (Riser Type) - Aluminum				
-- 20 foot depth, 10-foot of 0.006 slot				
-- 2 by 2 foot pad	2	Each	\$ 780.00	\$ 1,560.00
B. Obtain Well Permits	1	Lump Sum	\$ 75.00	\$ 75.00
C. Bollards (3 per well)	6	Each	\$ 84.00	\$ 504.00
D. Well Development				
-- Swabbing and over-pumping until turbidity < 5 NTU's	2	Each	\$ 150.00	\$ 300.00
E. Turbidimeter	1	Per Day	\$ 20.00	\$ 20.00
F. Depth to Water Level Indicator	1	Per Day	\$ 15.00	\$ 15.00
G. Soil Borings (as needed)	40	Linear feet	\$ 12.00	\$ -
H. Senior Technician/Scientist	18	Per Hour	\$ 60.00	\$ 1,080.00
I. Per Diem & Hotel	1	Per Man/Per Day	\$ 120.00	\$ 120.00
J. Professional Engineer	2	Per Hour	\$ 120.00	\$ 240.00
		<b>Subtotal Monitor Well Installation:</b>		<b>\$ 3,914.00</b>
<b>III. Monitoring Well Abandonment (MW-10 and MW-12)</b>				
A. 2" Diameter Monitoring Wells				
-- tremie grout				
-- remove pads	2	Each	\$ 240.00	\$ 480.00
B. Obtain Well Permits	1	Lump Sum	\$ 75.00	\$ 75.00
C. Senior Environmental Technician	4	Per Hour	\$ 60.00	\$ 240.00
		<b>Subtotal Monitoring Well Abandonment:</b>		<b>\$ 795.00</b>
<b>Professional Services - Reporting, Project Management</b>				
A. Professional Engineer	4	Per Hour	\$ 120.00	\$ 480.00
B. Project Engineer	10	Per Hour	\$ 95.00	\$ 950.00
C. CADD	1	Per Hour	\$ 45.00	\$ 45.00
		<b>Subtotal Professional Services:</b>		<b>\$ 1,475.00</b>
		<b>TOTAL</b>		<b>\$ 6,604.00</b>

**AGREEMENT**

Project No. 04-07-0048-302

SCS Engineers

4041 Park Oaks Blvd. Suite 100, Tampa, Florida 33610

This AGREEMENT entered into this \_\_\_ day of \_\_\_\_\_ 2008 by and between **Nodarse & Associates, Inc.** and  
**SCS Engineers** (Hereinafter referred to as **CLIENT**).

Project Name: Hardee County Landfill – Monitoring Well Installation and Abandonment  
Project Location: Hardee County Landfill, Wauchula, FL  
Project Owner: SCS Engineers  
Property Owner:

**Scope of Work and Compensation for Authorized Services**

Scope of Work

and Cost \$6,604.00

Compensation See Proposal Dated: 01-08-08

Special  
Conditions

**GENERAL CONDITIONS**

1. **PARTIES AND SCOPE OF WORK:** Nodarse & Associates, Inc. (hereinafter referred to as "N&A") shall include said company, or its particular division, subsidiary or affiliate performing the work. "Work" means the specific geotechnical, analytical, testing or other service to be performed by N&A as set forth in N&A's proposal, the Client's acceptance thereof, both incorporated herein by this reference, and these General Conditions. "Client" refers to the person or business entity ordering the work to be done by N&A. If the client is ordering the work on behalf of another, the Client represents and warrants that the Client is the duly authorized agent of said party for the purpose of ordering and directing said work. Further, Client shall disclose any such agency relationship to N&A in writing before the commencement of N&A's work hereunder. Unless otherwise stated in writing, the client assumes sole responsibility for reasonably determining whether the quantity and the nature of the work ordered by the Client are reasonably adequate and sufficient for the Client's intended purpose. Client shall communicate these General Conditions to each and every third party to whom the Client transmits any part of N&A's work. N&A's work is for the exclusive use of Client, and its properly disclosed principal. In no event shall N&A have any duty or obligation to any third party. Further, should Client direct or allow N&A to proceed with the work before executing and returning N&A's proposal, Client hereby irrevocably agrees to be bound by N&A's proposal and these General Conditions.

2. **TESTS AND INSPECTIONS:** Client shall cause all tests and inspections of the site, materials and work performed by N&A or others to be timely and properly performed in accordance with the plans, specifications and contract documents, and N&A's recommendations. N&A shall not be liable for any claims for loss, damage or injury by Client or any third party unless all tests and inspections have been so performed and unless N&A's recommendations have been followed by Client. In the event that all such tests and inspections are not so performed or N&A's recommendations are not so followed, Client agrees to indemnify, defend and hold N&A, its officers, employees, and agents harmless from any and all claims, suits, losses, costs and expenses, including, but not limited to, court costs and reasonable attorney's fees arising out of the failure to perform such tests and inspections or to follow N&A's recommendations except to the extent that such failure is the result of the negligence, willful or wanton act or omission of N&A, its officers, agents or employees.

**Geotechnical, Environmental & Materials Engineering**

**3. SCHEDULING OF WORK:** If N&A is required to delay commencement of the work, or if, upon embarking upon its work, N&A is required to stop or interrupt the progress of its work as a result of changes in the scope of the work requested by the Client, to fulfill the requirements of third parties, interruptions in the progress of construction, or other causes beyond the exclusive reasonable control of N&A, additional charges will be applicable and payable by Client. Further, Client agrees that any schedule or time for performance of N&A's work is an estimate only and is dependant upon conditions outside the control of N&A or otherwise. As a result, Client agrees that N&A's work is not subject to any project or construction schedule.

**4. ACCESS TO SITE:** Client will arrange and provide such access to the site as is necessary for N&A to perform the work. N&A shall take reasonable measures and precautions to minimize damage to the site and any improvements located thereon as the result of its work or the use of its equipment. However, restoration costs are not included in the contract fee, and Client expressly releases N&A for liability for any damage to the site, and agrees that N&A shall not be responsible for the cost of restoring the site to its original condition. If Client desires or requires N&A to restore the site to its original condition, then upon written request and agreement by Client to pay the cost thereof, N&A will perform such additional work as is necessary to repair damage to the site caused by its work or the use of its equipment.

**5. DAMAGE TO EXISTING MAN-MADE OBJECTS:** Unless otherwise agreed to in writing, N&A is not responsible for locating or damage to subsurface or latent conditions.

**6. RESPONSIBILITY:** N&A's work shall not include determining, supervising or implementing the means, methods, techniques, sequences or procedures of construction. N&A shall not be responsible for evaluating, reporting or affecting job conditions concerning health, safety or welfare. N&A's work or failure to perform same shall not in any way excuse any contractor, subcontractor or supplier from performance of its work in accordance with the contract documents.

**7. SAMPLE DISPOSAL:** Unless otherwise agreed in writing, test specimens will be disposed of immediately upon completion of the test and all drilling samples or specimens will be disposed of at our discretion after a period of seven (7) days after submission of N&A's soils report.

**8. PAYMENT:** Client shall be invoiced at completion of work or once each month for work performed during the preceding period. Client agrees to pay each invoice within thirty (30) days of its receipt. The Client further agrees to pay interest on all amounts invoiced and not paid within said thirty (30) day period at the rate of eighteen (18) percent per annum (or the maximum interest rate permitted under applicable law, whichever is the lesser) until paid. Client agrees to pay N&A's cost of collection of all amounts which remain due and unpaid after sixty (60) days, including court costs and reasonable attorney's fees. Failure to make payment within thirty (30) days of invoice shall allow N&A to suspend all work hereunder without notice until payment is made. In addition, failure to make payment within thirty (30) days of invoice shall constitute a release of N&A from any and all claims which Client may have, either in tort or contract, and whether known or unknown at the time.

**9. TERMINATION:** This Agreement may be terminated by either party upon seven (7) days prior written notice. In the event of termination, N&A shall be compensated by Client for all services performed up to and including the termination date, including reimbursable expenses, and for the completion of such services and records as are necessary to place N&A's files in order and/or protect its professional reputation and/or errors and omissions claims. Upon termination of this Agreement, N&A shall have no further liability to Client for any work to be performed under this Agreement.

**10. WARRANTY:** N&A's services will be performed, its findings obtained and its reports prepared in accordance with its proposal, Client's acceptance thereof, these General Conditions, and with generally accepted principles and practices in the industry. In performing its professional services, N&A will use that degree of care and skill ordinarily exercised under similar circumstances by members of its profession. This warranty is in lieu of all other warranties or representations, either expressed or implied. Statements made in N&A reports are opinions based upon its engineering judgment and are not to be construed as representations of fact.

In the event of any breach of this Agreement by N&A, or should N&A, or any of its professional employees be found to have been negligent in the performing of professional services or work or to have made and breached any expressed or implied warranty, presentation or contract, then Client, all parties claiming through Client and all parties claiming to have in any way relied upon N&A's services or work agree that the maximum aggregate amount of the liability of N&A, its officers, employees and agents shall be limited to \$50,000.00 or the total amount of the fee paid to N&A for its work performed with respect to the project whichever amount is more. Notwithstanding any statements contained herein to the contrary, in no event shall N&A be liable for any consequential or incidental damages (including, without limitation, any claim for delay, loss of efficiency, impact, loss of production or anticipated profits) or liability incurred by Client with respect to any services furnished or to be furnished hereunder by N&A. Client expressly acknowledges that it has received consideration for this Agreement to limit liability in the form of a lower contract price.

Client may, upon written request received within five (5) days of Client's acceptance hereof, increase the limit of N&A's liability agreeing to pay N&A an additional sum as agreed in writing prior to the commencement of N&A's services. This charge is not to be construed as being a charge for insurance of any type, but is increased consideration for the greater liability involved.

**Geotechnical, Environmental & Materials Engineering**

**11. INDEMNITY:** Client agrees to defend, indemnify and save harmless N&A from all claims, including negligence claims, suits, losses, personal injuries, death and property liability resulting from N&A's performance of the proposed work, whether such claims or damages are caused in whole or in part by N&A, and agrees to reimburse N&A for expenses in connection with any such claims or suits, including reasonable attorney's fees. Client's obligation to indemnify is limited to \$2 million per occurrence, which Client agrees bears a reasonable commercial relationship to the work undertaken by N&A. Client further agrees that these general conditions are a part of the work's specifications or bid documents, if any.

**12. ARBITRATION:** Anything contained in any other contract document notwithstanding, N&A shall not be bound by a provision or agreement (a) requiring or providing for arbitration of disputes or controversies arising out of N&A's work or these general conditions, (b) wherein N&A waives its rights to a mechanic's lien, or (c) conditioning N&A's right to payment upon payment by a third party.

**13. PROVISIONS SEVERABLE:** In the event any of the provisions of these General Conditions should be found to be unenforceable, it shall be stricken and the remaining provisions shall be enforceable.

**14. VENUE AND APPLICABLE LAW:** This Agreement shall be governed by and construed in accordance with the laws of the State of Florida. Except with respect for the filing and/or determination of any mechanic liens, in the event of any other legal or equitable action arising under this Agreement, the venue of such action shall lie exclusively within either the state courts of Florida located in Orange County, Florida, or the United States District Court for the Middle District of Florida, Orlando Division, and the parties hereto do specifically waive any other jurisdiction and venue. Further, all causes of action, including but not limited to actions for indemnification, arising out of N&A's work shall be deemed to have accrued and the applicable statutes of limitation shall commence to run not later than either the date of substantial completion of the work for acts or failures to act occurring prior to substantial completion, or the date of issuance of N&A's final invoice for acts or failures to act occurring after substantial completion of the work.

**15. DISCOVERY OF UNANTICIPATED HAZARDOUS MATERIALS:** N&A and Client agree that the discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work or termination of services. N&A and Client also agree that the discovery of unanticipated hazardous materials may make it necessary for N&A to take immediate measures to protect health and safety. Client agrees to compensate N&A for any time spent and expense incurred by N&A to protect employees and the public's health and safety. N&A agrees to notify Client as soon as practical should unanticipated hazardous materials or suspected hazardous materials be encountered. In addition, Client waives any claim against N&A and agrees to defend, indemnify and save N&A harmless from any claim or liability for injury or loss arising from N&A's discovery of unanticipated hazardous materials or suspected hazardous materials. Client also agrees to compensate N&A for any time spent and expense incurred by N&A in defense of any such claim, with such compensation to be based upon N&A's prevailing fee schedule and expense reimbursement policy relative to recovery of direct project costs.

The undersigned hereby accepts all terms and conditions set forth in this AGREEMENT including the General Conditions set forth above, and warrants that he/she has full authority to bind CLIENT.

Client/Authorized Agent: \_\_\_\_\_  
(Strike out word that does not pertain)

**Nodarse & Associates, Inc.**

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date

Title: \_\_\_\_\_

Date

Project No.: 04-07-0048-302  
Client: SCS Engineers  
Project Name: Hardee Co. Landfill  
Engineer/Admin Initials: DMC





Cliff Berry, Incorporated  
Environmental Services

Cliff Berry, Inc.  
5218 St. Paul St.  
Tampa, FL 33619  
(813) 626-6533

26 March 2006

SCS Engineers, Inc.  
3012 US Hwy. 301 North  
Suite 700  
Tampa, FL 33619  
Attn: Dominique Bramlett

VIA FACSIMILE (813) 623-6757

Re: Price quotation for environmental services.

Hardee County  
Department of Solid Waste  
Material Recovery Facility  
Animal Services  
685 Airport Road  
Wauchula, FL 33873-8663

Dear Ms. Bramlett:

Cliff Berry, Inc. is pleased to quote you with the following rates to clean two leachate tanks, their containment and two lift stations. The following should be noted;

- 1) Each tank, containment and replacement gasket will be assessed at a rate of \$4,500.00 per tank.
- 2) The rate to clean both the leachate tanks (if done at the same time) will be assessed at a flat rate of \$1200.00

**Total to clean both tanks and both separators: \$10,200.00**

Exceptions:

- 1) Hardee County Department of Solid Waste will provide any lockout/tagout of electrical, mechanical, pumps, valves or any other device, which may impede the safety of the tank cleaning evolution.
- 2) Wash water will be made available from the maintenance shed and/or fire hydrant (if available).

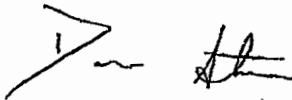
- 3) Cliff Berry, Inc. will not be responsible for tank closure upon acceptance of the tank and the completion of the gas free evolution.

Notes:

- 1) If awarded to Cliff Berry, Inc., all parties will agree to a mutually acceptable date for these evolutions.
- 2) Cliff Berry, Inc. will open the manways on the tanks and containments.
- 3) Cliff Berry, Inc. will provide all labor, materials and equipment for tank cleaning.
- 4) All waste removed from the tank will be left on site as was done in the past.
- 5) It is agreed that the level of cleanliness will be the accepted industry standard of "Safe for men, safe for hot work" as prescribed by a Marine Chemist. In the event that the tank requires additional cleaning, Cliff Berry, Inc. will not be held liable for any additional time or costs. If additional cleaning and/or the scope of work changes, a change order will be authorized prior to proceeding with any additional work.
- 6) If a Gas Free Certificate is required, Cliff Berry, Inc. can provide a Marine Chemist for an agreed rate.
- 7) The attached rates are based on a Monday thru Friday 0800 ~ 1700 workweek. If weekend work and/or second/third shift work is required and authorized, overtime rates will be charged at one and a half straight time rates and double on observed government holidays.
- 8) Payment is net 30 upon receipt of invoice.
- 9) The above mentioned prices are valid for thirty (30) days from the date of this quote.
- 10) Established credit will be required prior to deployment of labor and equipment.
- 11) If a purchase order number is required for payment, one will be supplied prior to mobilizing for any job evolutions.

Thank you for the opportunity to submit this quote and we look forward to conducting business with you. If you have any questions, please do not hesitate to contact me.

Regards,



Dan Stone  
Facility Manager - Tampa  
Cliff Berry, Inc.

Fischer, Shane

Subject: FW: Leachate hauling/disposal cost

From: Teresa Carver [mailto:Teresa.Carver@hardeecounty.net]  
Sent: Wednesday, August 26, 2009 8:11 AM  
To: Fischer, Shane  
Subject: RE: Leachate hauling/disposal cost

p. 8 of 11  
offsite Disposal  
of leachate

City of Wauchula stated that we get charge \$300.10 for 6000 gallons and \$5.45 per thousand for remainder.

Teresa Carver  
Director  
Solid Waste  
Animal Services  
685 Airport Road  
Wauchula, FL 33873  
Work: 863-773-5089  
Fax: 863-773-3907  
Email: [teresa.carver@hardeecounty.net](mailto:teresa.carver@hardeecounty.net)

#### LEGAL NOTICE REGARDING EMAIL

Senate Bill 80 - effective July 1, 2006

Under Florida Law, email addresses are public records. If you do not want your email address released in response to a public-records request, do not send electronic email to this entity. Instead, contact this office by phone or in writing.

This message has been sent from Hardeecounty.net, the official homepage of the Hardee County Board of County Commissioners. If you are unable to access attachments, please contact the Hardee County IT Helpdesk at [helpdesk@hardeecounty.net](mailto:helpdesk@hardeecounty.net). Thank you.

5,124,000 gallons for 2008

5,124,000 gallons - 6000 gallons = 5,118,000 gallons

5,118,000 gallons \*  $\frac{\$5.45}{1000 \text{ gallons}}$

= \$27,893.10 Disposal cost

MONTH	RAINFALL (INCHES)	TOTAL PHASE I LEACHATE COLLECTED (GALLONS)	TOTAL PHASE II SECTION I LEACHATE COLLECTED (GALLONS)	WATER ADDED TO TANKS DUE TO RAINFALL (GALLONS)	TOTAL LIQUID HAULED FROM TANKS
January-08	2.8	281,538.0	0.0	2,314.0	306,000.0
February-08	4.0	399,466.0	0.0	3,261.0	438,000.0
March-08	2.7	78,592.0	0.0	2,215.2	60,000.0
April-08	1.6	396,863.0	0.0	1,317.6	282,000.0
May-08	0.9	234,191.0	0.0	741.1	270,000.0
June-08	10.0	61,230.0	265,160.0	8,193.6	408,000.0
July-08	17.2	399,150.0	0.0	14,130.9	444,000.0
August-08	6.2	0.0	893,701.0	5,105.6	786,000.0
September-08	2.2	308,044.0	191,552.0	1,770.5	546,000.0
October-08	0.1	498,495.0	282,500.0	107.1	780,000.0
November-08	0.0	262,535.0	233,800.0	0.0	540,000.0
December-08	0.0	45,475.0	254,500.0	0.0	264,000.0
Total	47.6	2,965,579.0	2,121,213.0	39,156.4	5,124,000.0

Month: January 2008

Day	Total Daily Rainfall (inches)	Water Added to Tanks Due to Rainfall (gal)	Total Liquid Added to Tanks Daily (gal)	Previous Days Liquid Remaining in Tanks (gal)	Previous Days Liquid and Total Liquid Added to Tanks Daily (gal)	Liquid Hauled From Tanks Per Day (gal)	End of Day Balance in Tanks (gal)
				76,000.0			
1	0.0	0.0	0.0	76,000.0	76,000.0	0.0	76,000.0
2	0.0	0.0	0.0	76,000.0	76,000.0	0.0	76,000.0
3	0.0	0.0	0.0	76,000.0	76,000.0	0.0	76,000.0
4	0.0	0.0	0.0	76,000.0	76,000.0	12,000.0	64,000.0
5	0.0	0.0	0.0	64,000.0	64,000.0	0.0	64,000.0
6	0.0	0.0	0.0	64,000.0	64,000.0	0.0	64,000.0
7	0.0	0.0	29,667.0	64,000.0	93,667.0	24,000.0	69,667.0
8	0.0	0.0	0.0	69,667.0	69,667.0	12,000.0	57,667.0
9	0.0	0.0	0.0	57,667.0	57,667.0	12,000.0	45,667.0
10	0.0	0.0	0.0	45,667.0	45,667.0	0.0	45,667.0
11	0.0	0.0	0.0	45,667.0	45,667.0	0.0	45,667.0
12	0.0	0.0	0.0	45,667.0	45,667.0	0.0	45,667.0
13	0.1	49.4	49.4	45,667.0	45,716.4	0.0	45,716.4
14	0.0	0.0	23,655.0	45,716.4	69,371.4	24,000.0	45,371.4
15	0.0	0.0	0.0	45,371.4	45,371.4	18,000.0	27,371.4
16	0.0	0.0	38,542.0	27,371.4	65,913.4	18,000.0	47,913.4
17	0.5	411.7	411.7	47,913.4	48,325.1	12,000.0	36,325.1
18	0.1	49.4	49.4	36,325.1	36,374.6	0.0	36,374.6
19	0.8	634.1	634.1	36,374.6	37,008.6	0.0	37,008.6
20	0.0	0.0	0.0	37,008.6	37,008.6	0.0	37,008.6
21	1.0	823.5	823.5	37,008.6	37,832.1	30,000.0	7,832.1
22	0.1	57.6	57.6	7,832.1	7,889.8	6,000.0	1,889.8
23	0.2	140.0	27,308.0	1,889.8	29,197.7	18,000.0	11,197.7
24	0.0	16.5	83,372.5	11,197.7	94,570.2	24,000.0	70,570.2
25	0.0	0.0	28,766.0	70,570.2	99,336.2	24,000.0	75,336.2
26	0.2	131.8	131.8	75,336.2	75,468.0	0.0	75,468.0
27	0.0	0.0	0.0	75,468.0	75,468.0	0.0	75,468.0
28	0.0	0.0	50,384.0	75,468.0	125,852.0	24,000.0	101,852.0
29	0.0	0.0	0.0	101,852.0	101,852.0	18,000.0	83,852.0
30	0.0	0.0	0.0	83,852.0	83,852.0	0.0	83,852.0
31	0.0	0.0	0.0	83,852.0	83,852.0	30,000.0	53,852.0

Month: February 2008

Day	Total Daily Rainfall (inches)	Water Added to Tanks Due to Rainfall (gal)	Total Liquid Added to Tanks Daily (gal)	Previous Days Liquid Remaining in Tanks (gal)	Previous Days Liquid and Total Liquid Added to Tanks Daily (gal)	Liquid Hauled From Tanks Per Day (gal)	End of Day Balance in Tanks (gal)
				53,852.0			
1	0.0	0.0	0.0	53,852.0	53,852.0		53,852.0
2	0.0	0.0	0.0	53,852.0	53,852.0		53,852.0
3	0.0	0.0	0.0	53,852.0	53,852.0		53,852.0
4	0.0	0.0	36,518.0	53,852.0	90,370.0	24,000.0	66,370.0
5	0.0	0.0	0.0	66,370.0	66,370.0	24,000.0	42,370.0
6	0.0	0.0	36,516.0	42,370.0	78,886.0	24,000.0	54,886.0
7	0.1	107.1	30,772.1	54,886.0	85,658.0	24,000.0	61,658.0
8	0.4	329.4	24,832.4	61,658.0	86,490.4	24,000.0	62,490.4
9	0.1	41.2	41.2	62,490.4	62,531.6		62,531.6
10	0.0	0.0	0.0	62,531.6	62,531.6		62,531.6
11	0.0	0.0	34,543.0	62,531.6	97,074.6	24,000.0	73,074.6
12	0.4	312.9	22,807.9	73,074.6	95,882.5	24,000.0	71,882.5
13	0.5	411.7	411.7	71,882.5	72,294.3	24,000.0	48,294.3
14	0.0	0.0	24,850.0	48,294.3	73,144.3	30,000.0	43,144.3
15	0.0	0.0	16,896.0	43,144.3	60,040.3	12,000.0	48,040.3
16	0.0	0.0	0.0	48,040.3	48,040.3		48,040.3
17	0.0	0.0	0.0	48,040.3	48,040.3		48,040.3
18	1.0	790.5	48,952.5	48,040.3	96,992.8	24,000.0	72,992.8
19	0.5	411.7	20,901.7	72,992.8	93,894.5	24,000.0	69,894.5
20	0.0	0.0	0.0	69,894.5	69,894.5	30,000.0	39,894.5
21	0.2	164.7	27,131.7	39,894.5	67,026.2	24,000.0	43,026.2
22	0.3	205.9	27,885.9	43,026.2	70,912.1	24,000.0	46,912.1
23	0.5	378.8	378.8	46,912.1	47,290.9		47,290.9
24	0.0	24.7	24.7	47,290.9	47,315.6		47,315.6
25	0.1	82.3	82.3	47,315.6	47,398.0	12,000.0	35,398.0
26	0.0	0.0	49,181.0	35,398.0	84,579.0	12,000.0	72,579.0
27	0.0	0.0	0.0	72,579.0	72,579.0	18,000.0	54,579.0
28	0.0	0.0	0.0	54,579.0	54,579.0		54,579.0
29	0.0	0.0	0.0	54,579.0	54,579.0	30,000.0	24,579.0
30	0.0	0.0	0.0	24,579.0	24,579.0	6,000.0	18,579.0
31	0.0	0.0	0.0	18,579.0	18,579.0		18,579.0

Month: March 2008

Day	Total Daily Rainfall (inches)	Water Added to Tanks Due to Rainfall (gal)	Total Liquid Added to Tanks Daily (gal)	Previous Days Liquid Remaining in Tanks (gal)	Previous Days Liquid and Total Liquid Added to Tanks Daily (gal)	Liquid Hauled From Tanks Per Day (gal)	End of Day Balance in Tanks (gal)
				18,579.0			
1	0.0	0.0	0.0	18,579.0	18,579.0		18,579.0
2	0.0	0.0	0.0	18,579.0	18,579.0		18,579.0
3	0.0	0.0	0.0	18,579.0	18,579.0		18,579.0
4	0.0	0.0	0.0	18,579.0	18,579.0		18,579.0
5	0.2	181.2	181.2	18,760.1	18,760.1		18,760.1
6	0.7	592.9	592.9	19,353.0	19,353.0		19,353.0
7	0.4	288.2	288.2	19,641.2	19,641.2		19,641.2
8	0.0	0.0	0.0	19,641.2	19,641.2		19,641.2
9	0.0	0.0	0.0	19,641.2	19,641.2		19,641.2
10	0.0	0.0	0.0	19,641.2	19,641.2		19,641.2
11	0.4	296.5	296.5	19,937.7	19,937.7		19,937.7
12	0.0	0.0	30,329.0	20,329.7	50,329.7	30,000.0	20,329.7
13	0.0	0.0	0.0	20,329.7	20,329.7		20,329.7
14	0.1	65.9	65.9	20,395.6	20,395.6		20,395.6
15	0.0	0.0	0.0	20,395.6	20,395.6		20,395.6
16	0.0	0.0	0.0	20,395.6	20,395.6		20,395.6
17	0.0	0.0	14,800.0	35,195.6	35,195.6		35,195.6
18	0.0	0.0	0.0	35,195.6	35,195.6		35,195.6
19	0.0	0.0	0.0	35,195.6	35,195.6		35,195.6
20	0.6	494.1	494.1	35,689.7	35,689.7		35,689.7
21	0.0	0.0	0.0	35,689.7	35,689.7		35,689.7
22	0.4	296.5	296.5	35,986.1	35,986.1		35,986.1
23	0.0	0.0	0.0	35,986.1	35,986.1		35,986.1
24	0.0	0.0	0.0	35,986.1	35,986.1		35,986.1
25	0.0	0.0	0.0	35,986.1	35,986.1		35,986.1
26	0.0	0.0	33,400.0	39,386.1	69,386.1	30,000.0	39,386.1
27	0.0	0.0	0.0	39,386.1	39,386.1		39,386.1
28	0.0	0.0	0.0	39,386.1	39,386.1		39,386.1
29	0.0	0.0	0.0	39,386.1	39,386.1		39,386.1
30	0.0	0.0	0.0	39,386.1	39,386.1		39,386.1
31	0.0	0.0	0.0	39,386.1	39,386.1		39,386.1



Month: April 2008

Day	Total Daily Rainfall (inches)	Water Added to Tanks Due to Rainfall (gal)	Total Liquid Added to Tanks Daily (gal)	Previous Days Liquid Remaining in Tanks (gal)	Previous Days Liquid and Total Liquid Added to Tanks Daily (gal)	Liquid Hauled From Tanks Per Day (gal)	End of Day Balance in Tanks (gal)
				39,386.1			
1	0.0	0.0	28,764.0	38,150.1	68,150.1	30,000.0	38,150.1
2	1.5	1,235.2	1,235.2	9,385.3	39,385.3	30,000.0	9,385.3
3	0.0	0.0	38,364.0	17,749.3	47,749.3	30,000.0	17,749.3
4	0.0	0.0	29,604.0	35,353.3	47,353.3	12,000.0	35,353.3
5	0.0	0.0	0.0	35,353.3	35,353.3		35,353.3
6	0.0	0.0	0.0	35,353.3	35,353.3		35,353.3
7	0.0	0.0	0.0	35,353.3	35,353.3		35,353.3
8	0.0	0.0	20,861.0	26,214.3	56,214.3	30,000.0	26,214.3
9	0.1	82.3	22,749.3	18,963.7	48,963.7	30,000.0	18,963.7
10	0.0	0.0	22,667.0	11,630.7	41,630.7	30,000.0	11,630.7
11	0.0	0.0	27,600.0	9,230.7	39,230.7	30,000.0	9,230.7
12	0.0	0.0	0.0	9,230.7	9,230.7		9,230.7
13	0.0	0.0	0.0	9,230.7	9,230.7		9,230.7
14	0.0	0.0	28,470.0	7,700.7	37,700.7	30,000.0	7,700.7
15	0.0	0.0	25,198.0	2,898.7	32,898.7	30,000.0	2,898.7
16	0.0	0.0	0.0	2,898.7	2,898.7		2,898.7
17	0.0	0.0	16,509.0	19,407.7	19,407.7		19,407.7
18	0.0	0.0	0.0	19,407.7	19,407.7		19,407.7
19	0.0	0.0	0.0	19,407.7	19,407.7		19,407.7
20	0.0	0.0	0.0	19,407.7	19,407.7		19,407.7
21	0.0	0.0	16,176.0	35,583.7	35,583.7		35,583.7
22	0.0	0.0	30,201.0	65,784.7	65,784.7		65,784.7
23	0.0	0.0	19,839.0	85,623.7	85,623.7		85,623.7
24	0.0	0.0	19,225.0	104,848.7	104,848.7		104,848.7
25	0.0	0.0	12,378.0	117,226.7	117,226.7		117,226.7
26	0.0	0.0	0.0	117,226.7	117,226.7		117,226.7
27	0.0	0.0	0.0	117,226.7	117,226.7		117,226.7
28	0.0	0.0	0.0	117,226.7	117,226.7		117,226.7
29	0.0	0.0	13,975.0	131,201.7	131,201.7		131,201.7
30	0.0	0.0	24,365.0	155,566.7	155,566.7		155,566.7
31	0.0	0.0	0.0	155,566.7	155,566.7		155,566.7

Month: May 2008

Day	Total Daily Rainfall (inches)	Water Added to Tanks Due to Rainfall (gal)	Total Liquid Added to Tanks Daily (gal)	Previous Days Liquid Remaining in Tanks (gal)	Previous Days Liquid and Total Liquid Added to Tanks Daily (gal)	Liquid Hauled From Tanks Per Day (gal)	End of Day Balance in Tanks (gal)
				155,566.7			
1	0.0	0.0	0.0	155,566.7	155,566.7		155,566.7
2	0.0	0.0	0.0	155,566.7	155,566.7		155,566.7
3	0.0	0.0	0.0	155,566.7	155,566.7		155,566.7
4	0.0	0.0	0.0	155,566.7	155,566.7		155,566.7
5	0.0	0.0	15,457.0	141,023.7	171,023.7	30,000.0	141,023.7
6	0.0	0.0	29,630.0	140,653.7	170,653.7	30,000.0	140,653.7
7	0.0	0.0	15,313.0	137,966.7	155,966.7	18,000.0	137,966.7
8	0.0	0.0	0.0	137,966.7	137,966.7		137,966.7
9	0.0	0.0	0.0	137,966.7	137,966.7		137,966.7
10	0.0	0.0	0.0	137,966.7	137,966.7		137,966.7
11	0.0	0.0	0.0	137,966.7	137,966.7		137,966.7
12	0.0	0.0	0.0	137,966.7	137,966.7		137,966.7
13	0.0	0.0	0.0	137,966.7	137,966.7		137,966.7
14	0.0	0.0	19,623.0	127,589.7	157,589.7	30,000.0	127,589.7
15	0.0	0.0	0.0	127,589.7	127,589.7		127,589.7
16	0.0	0.0	0.0	127,589.7	127,589.7		127,589.7
17	0.0	0.0	0.0	127,589.7	127,589.7		127,589.7
18	0.0	0.0	0.0	127,589.7	127,589.7		127,589.7
19	0.0	0.0	0.0	127,589.7	127,589.7		127,589.7
20	0.4	329.4	27,729.4	125,319.1	155,319.1	30,000.0	125,319.1
21	0.5	411.7	23,771.7	125,090.8	149,090.8	24,000.0	125,090.8
22	0.0	0.0	0.0	125,090.8	125,090.8	0.0	125,090.8
23	0.0	0.0	0.0	125,090.8	125,090.8		125,090.8
24	0.0	0.0	0.0	125,090.8	125,090.8		125,090.8
25	0.0	0.0	0.0	125,090.8	125,090.8		125,090.8
26	0.0	0.0	0.0	125,090.8	125,090.8		125,090.8
27	0.0	0.0	48,497.0	137,587.8	173,587.8	36,000.0	137,587.8
28	0.0	0.0	0.0	101,587.8	137,587.8	36,000.0	101,587.8
29	0.0	0.0	0.0	65,587.8	101,587.8	36,000.0	65,587.8
30	0.0	0.0	54,911.0	120,498.8	120,498.8		120,498.8
31	0.0	0.0	0.0		120,498.8		120,498.8

Month: June 2008

Day	Total Daily Rainfall (inches)	Water Added to Tanks Due to Rainfall (gal)	Total Liquid Added to Tanks Daily (gal)	Previous Days Liquid Remaining in Tanks (gal)	Previous Days Liquid and Total Liquid Added to Tanks Daily (gal)	Liquid Hauled From Tanks Per Day (gal)	End of Day Balance in Tanks (gal)
				120,498.8			
1	0.0	0.0	0.0	120,498.8	120,498.8		120,498.8
2	0.0	0.0	0.0	120,498.8	120,498.8		120,498.8
3	0.0	0.0	0.0	120,498.8	120,498.8		120,498.8
4	0.0	0.0	0.0	120,498.8	120,498.8		120,498.8
5	0.0	0.0	0.0	120,498.8	120,498.8		120,498.8
6	1.5	1,235.2	31,235.2	139,734.0	151,734.0	12,000.0	139,734.0
7	0.0	0.0	0.0	115,734.0	139,734.0	24,000.0	115,734.0
8	0.0	0.0	0.0	115,734.0	115,734.0		115,734.0
9	0.0	0.0	0.0	115,734.0	115,734.0		115,734.0
10	0.8	617.6	617.6	98,351.6	116,351.6	18,000.0	98,351.6
11	0.0	0.0	10,290.0	78,641.6	108,641.6	30,000.0	78,641.6
12	1.0	823.5	15,913.5	64,555.1	94,555.1	30,000.0	64,555.1
13	0.5	411.7	38,791.7	103,346.9	103,346.9		103,346.9
14	1.5	1,235.2	33,605.2	136,952.1	136,952.1		136,952.1
15	0.0	0.0	0.0	136,952.1	136,952.1		136,952.1
16	0.0	0.0	15,145.0	122,097.1	152,097.1	30,000.0	122,097.1
17	0.0	0.0	13,715.0	117,812.1	135,812.1	18,000.0	117,812.1
18	0.4	329.4	329.4	94,141.5	118,141.5	24,000.0	94,141.5
19	0.8	617.6	36,617.6	100,759.1	130,759.1	30,000.0	100,759.1
20	0.0	0.0	0.0	100,759.1	100,759.1		100,759.1
21	0.0	0.0	0.0	100,759.1	100,759.1		100,759.1
22	0.0	0.0	0.0	100,759.1	100,759.1		100,759.1
23	1.5	1,235.2	21,635.2	122,394.3	122,394.3		122,394.3
24	0.0	0.0	25,200.0	111,594.3	147,594.3	36,000.0	111,594.3
25	0.0	0.0	38,200.0	113,794.3	149,794.3	36,000.0	113,794.3
26	0.8	658.8	658.8	102,453.1	114,453.1	12,000.0	102,453.1
27	0.8	617.6	26,217.6	92,670.7	128,670.7	36,000.0	92,670.7
28	0.0	0.0	0.0	56,670.7	92,670.7	36,000.0	56,670.7
29	0.0	0.0	0.0	56,670.7	56,670.7		56,670.7
30	0.5	411.7	26,411.7	47,082.4	83,082.4	36,000.0	47,082.4
31	0.0	0.0	0.0		47,082.4		47,082.4

Month: July 2008

Day	Total Daily Rainfall (inches)	Water Added to Tanks Due to Rainfall (gal)	Total Liquid Added to Tanks Daily (gal)	Previous Days Liquid Remaining in Tanks (gal)	Previous Days Liquid and Total Liquid Added to Tanks Daily (gal)	Liquid Hauled From Tanks Per Day (gal)	End of Day Balance in Tanks (gal)
				47,082.4			
1	0.2	189.4	38,789.4	85,871.8	85,871.8		85,871.8
2	0.5	395.3	26,195.3	112,067.1	112,067.1		112,067.1
3	1.3	1,070.5	1,070.5	107,137.6	113,137.6	6,000.0	107,137.6
4	0.0	0.0	0.0	107,137.6	107,137.6		107,137.6
5	0.0	0.0	0.0	107,137.6	107,137.6		107,137.6
6	0.6	461.1	461.1	107,598.8	107,598.8		107,598.8
7	0.9	741.1	26,541.1	98,139.9	134,139.9	36,000.0	98,139.9
8	0.4	345.9	39,845.9	101,985.8	137,985.8	36,000.0	101,985.8
9	0.0	16.5	16.5	90,002.2	102,002.2	12,000.0	90,002.2
10	0.0	0.0	26,300.0	104,302.2	116,302.2	12,000.0	104,302.2
11	0.0	0.0	0.0	104,302.2	104,302.2		104,302.2
12	0.0	0.0	0.0	104,302.2	104,302.2		104,302.2
13	1.5	1,218.7	1,218.7	105,521.0	105,521.0		105,521.0
14	0.4	304.7	304.7	69,825.7	105,825.7	36,000.0	69,825.7
15	1.3	1,037.6	27,687.6	61,513.2	97,513.2	36,000.0	61,513.2
16	0.7	576.4	576.4	50,089.7	62,089.7	12,000.0	50,089.7
17	0.0	0.0	26,400.0	52,489.7	76,489.7	24,000.0	52,489.7
18	0.0	0.0	24,000.0	52,489.7	76,489.7	24,000.0	52,489.7
19	0.0	0.0	0.0	52,489.7	52,489.7		52,489.7
20	0.0	0.0	0.0	52,489.7	52,489.7		52,489.7
21	0.0	0.0	0.0	52,489.7	52,489.7		52,489.7
22	0.0	0.0	31,300.0	71,789.7	83,789.7	12,000.0	71,789.7
23	2.2	1,811.7	1,811.7	67,601.3	73,601.3	6,000.0	67,601.3
24	3.3	2,676.3	39,076.3	76,677.6	106,677.6	30,000.0	76,677.6
25	0.0	0.0	26,000.0	78,677.6	102,677.6	24,000.0	78,677.6
26	0.6	452.9	452.9	79,130.6	79,130.6		79,130.6
27	0.2	123.5	123.5	79,254.1	79,254.1		79,254.1
28	1.8	1,474.0	23,874.0	73,128.1	103,128.1	30,000.0	73,128.1
29	0.6	502.3	24,502.3	61,630.4	97,630.4	36,000.0	61,630.4
30	0.9	732.9	26,732.9	52,363.3	88,363.3	36,000.0	52,363.3
31	0.0	0.0	0.0	52,363.3	52,363.3	36,000.0	16,363.3

Month: August 2008

Day	Total Daily Rainfall (inches)	Water Added to Tanks Due to Rainfall (gal)	Total Liquid Added to Tanks Daily (gal)	Previous Days Liquid Remaining in Tanks (gal)	Previous Days Liquid and Total Liquid Added to Tanks Daily (gal)	Liquid Hauled From Tanks Per Day (gal)	End of Day Balance in Tanks (gal)
				16,363.3			
1	0.0	16.5	16,397.5	0.0	32,760.8		32,760.8
				32,760.8			
2	0.0	0.0	35,500.0		68,260.8	30,000.0	38,260.8
				38,260.8			
3	0.0	8.2	8.2		38,269.0		38,269.0
				38,269.0			
4	0.6	461.1	19,831.1		58,100.2	36,000.0	22,100.2
				22,100.2			
5	0.0	16.5	26,016.5		48,116.6	36,000.0	12,116.6
				12,116.6			
6	0.5	411.7	35,411.7		47,528.4	36,000.0	11,528.4
				11,528.4			
7	0.5	370.6	76,815.6		88,343.9	36,000.0	52,343.9
				52,343.9			
8	0.1	65.9	72,959.9		125,303.8	48,000.0	77,303.8
				77,303.8			
9	0.0	0.0	0.0		77,303.8	30,000.0	47,303.8
				47,303.8			
10	0.0	0.0	0.0		47,303.8		47,303.8
				47,303.8			
11	0.0	0.0	12,940.0		60,243.8	48,000.0	12,243.8
				12,243.8			
12	0.0	0.0	58,400.0		70,643.8	36,000.0	34,643.8
				34,643.8			
13	0.0	0.0	0.0		34,643.8	30,000.0	4,643.8
				4,643.8			
14	0.1	82.3	73,082.3		77,726.2	48,000.0	29,726.2
				29,726.2			
15	0.5	411.7	64,811.7		94,537.9	42,000.0	52,537.9
				52,537.9			
16	0.1	57.6	57.6		52,595.6		52,595.6
				52,595.6			
17	0.0	0.0	0.0		52,595.6		52,595.6
				52,595.6			
18	0.1	82.3	65,582.3		118,177.9	48,000.0	70,177.9
				70,177.9			
19	2.4	1,976.3	1,976.3		72,154.3		72,154.3
				72,154.3			
20	0.1	41.2	65,541.2		137,695.4	48,000.0	89,695.4
				89,695.4			
21	0.1	41.2	41.2		89,736.6	48,000.0	41,736.6
				41,736.6			
22	0.1	49.4	55,299.4		97,036.0	48,000.0	49,036.0
				49,036.0			
23	0.0	0.0	0.0		49,036.0	0.0	49,036.0
				49,036.0			
24	0.0	0.0	0.0		49,036.0		49,036.0
				49,036.0			
25	0.0	0.0	48,636.0		97,672.0	48,000.0	49,672.0
				49,672.0			
26	0.0	0.0	45,000.0		94,672.0	30,000.0	64,672.0
				64,672.0			
27	0.0	0.0	0.0		64,672.0	0.0	64,672.0
				64,672.0			
28	0.1	115.3	40,115.3		104,787.3		104,787.3
				104,787.3			
29	0.0	0.0	43,485.0		148,272.3	36,000.0	112,272.3
				112,272.3			
30	1.1	897.6	40,897.6		153,169.9	24,000.0	129,169.9
				129,169.9			
31	0.0	0.0	0.0		129,169.9		129,169.9

Month: September 2008

Day	Total Daily Rainfall (inches)	Water Added to Tanks Due to Rainfall (gal)	Total Liquid Added to Tanks Daily (gal)	Previous Days Liquid Remaining in Tanks (gal)	Previous Days Liquid and Total Liquid Added to Tanks Daily (gal)	Liquid Hauled From Tanks Per Day (gal)	End of Day Balance in Tanks (gal)
				129,169.9			
1	0.1	82.3	82.3		129,252.2		129,252.2
				129,252.2			
2	0.0	0.0	0.0		129,252.2	6,000.0	123,252.2
				123,252.2			
3	0.0	0.0	0.0		123,252.2	0.0	123,252.2
				123,252.2			
4	0.0	0.0	0.0		123,252.2	0.0	123,252.2
				123,252.2			
5	0.2	131.8	131.8		123,384.0	0.0	123,384.0
				123,384.0			
6	0.0	0.0	0.0		123,384.0		123,384.0
				123,384.0			
7	0.0	0.0	0.0		123,384.0		123,384.0
				123,384.0			
8	0.0	0.0	0.0		123,384.0		123,384.0
				123,384.0			
9	0.1	49.4	49.4		123,433.4	6,000.0	117,433.4
				117,433.4			
10	0.1	82.3	21,337.3		138,770.7	48,000.0	90,770.7
				90,770.7			
11	0.1	41.2	33,848.2		124,618.9	48,000.0	76,618.9
				76,618.9			
12	0.0	0.0	35,393.0		112,011.9	48,000.0	64,011.9
				64,011.9			
13	0.0	0.0	0.0		64,011.9		64,011.9
				64,011.9			
14	0.4	288.2	73,288.2		137,300.1		137,300.1
				137,300.1			
15	0.0	0.0	0.0		137,300.1	48,000.0	89,300.1
				89,300.1			
16	0.3	205.9	205.9		89,506.0	24,000.0	65,506.0
				65,506.0			
17	0.1	82.3	64,482.3		129,988.4	48,000.0	81,988.4
				81,988.4			
18	0.0	0.0	41,600.0		123,588.4	48,000.0	75,588.4
				75,588.4			
19	0.0	0.0	0.0		75,588.4		75,588.4
				75,588.4			
20	0.4	345.9	345.9		75,934.2	0.0	75,934.2
				75,934.2			
21	0.1	115.3	115.3		76,049.5	0.0	76,049.5
				76,049.5			
22	0.2	148.2	148.2		76,197.7	48,000.0	28,197.7
				28,197.7			
23	0.0	0.0	51,121.0		79,318.7	48,000.0	31,318.7
				31,318.7			
24	0.0	0.0	0.0		31,318.7		31,318.7
				31,318.7			
25	0.0	0.0	71,020.0		102,338.7	48,000.0	54,338.7
				54,338.7			
26	0.0	0.0	53,500.0		107,838.7	48,000.0	59,838.7
				59,838.7			
27	0.0	0.0	0.0		59,838.7		59,838.7
				59,838.7			
28	0.0	0.0	0.0		59,838.7		59,838.7
				59,838.7			
29	0.2	197.6	54,697.6		114,536.4	30,000.0	84,536.4
				84,536.4			
30	0.0	0.0	0.0		84,536.4		84,536.4
				84,536.4			
31	0.0	0.0	0.0		84,536.4		84,536.4

Month: October 2008

Day	Total Daily Rainfall (inches)	Water Added to Tanks Due to Rainfall (gal)	Total Liquid Added to Tanks Daily (gal)	Previous Days Liquid Remaining in Tanks (gal)	Previous Days Liquid and Total Liquid Added to Tanks Daily (gal)	Liquid Hauled From Tanks Per Day (gal)	End of Day Balance in Tanks (gal)
				84,536.4			
1	0.0	8.2	25,498.2		110,034.6	48,000.0	62,034.6
				62,034.6			
2	0.0	0.0	46,000.0		108,034.6	48,000.0	60,034.6
				60,034.6			
3	0.0	0.0	63,500.0		123,534.6	48,000.0	75,534.6
				75,534.6			
4	0.0	0.0	0.0		75,534.6		75,534.6
				75,534.6			
5	0.0	0.0	0.0		75,534.6		75,534.6
				75,534.6			
6	0.0	0.0	41,000.0		116,534.6	48,000.0	68,534.6
				68,534.6			
7	0.0	0.0	52,600.0		121,134.6	48,000.0	73,134.6
				73,134.6			
8	0.0	0.0	31,800.0		104,934.6	48,000.0	56,934.6
				56,934.6			
9	0.0	0.0	48,500.0		105,434.6	48,000.0	57,434.6
				57,434.6			
10	0.0	0.0	27,685.0		85,119.6		85,119.6
				85,119.6			
11	0.0	0.0	0.0		85,119.6		85,119.6
				85,119.6			
12	0.0	0.0	0.0		85,119.6		85,119.6
				85,119.6			
13	0.1	41.2	62,161.2		147,280.8	48,000.0	99,280.8
				99,280.8			
14	0.1	57.6	52,657.6		151,938.4	48,000.0	103,938.4
				103,938.4			
15	0.0	0.0	52,470.0		156,408.4	48,000.0	108,408.4
				108,408.4			
16	0.0	0.0	47,880.0		156,288.4	48,000.0	108,288.4
				108,288.4			
17	0.0	0.0	44,600.0		152,888.4	48,000.0	104,888.4
				104,888.4			
18	0.0	0.0	0.0		104,888.4		104,888.4
				104,888.4			
19	0.0	0.0	45,000.0		149,888.4		149,888.4
				149,888.4			
20	0.0	0.0	0.0		149,888.4		149,888.4
				149,888.4			
21	0.0	0.0	0.0		149,888.4		149,888.4
				149,888.4			
22	0.0	0.0	0.0		149,888.4		149,888.4
				149,888.4			
23	0.0	0.0	0.0		149,888.4	12,000.0	137,888.4
				137,888.4			
24	0.0	0.0	0.0		137,888.4		137,888.4
				137,888.4			
25	0.0	0.0	0.0		137,888.4		137,888.4
				137,888.4			
26	0.0	0.0	0.0		137,888.4		137,888.4
				137,888.4			
27	0.0	0.0	46,000.0		183,888.4	48,000.0	135,888.4
				135,888.4			
28	0.0	0.0	23,450.0		159,338.4	48,000.0	111,338.4
				111,338.4			
29	0.0	0.0	18,500.0		129,838.4	48,000.0	81,838.4
				81,838.4			
30	0.0	0.0	30,300.0		112,138.4		112,138.4
				112,138.4			
31	0.0	0.0	21,500.0		133,638.4	48,000.0	85,638.4



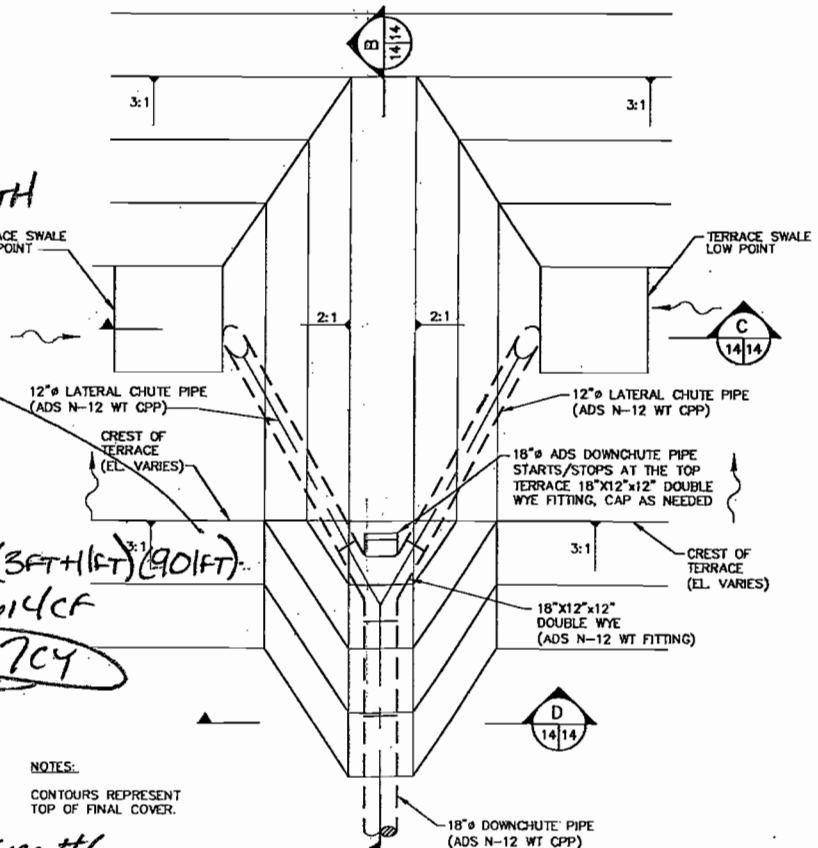
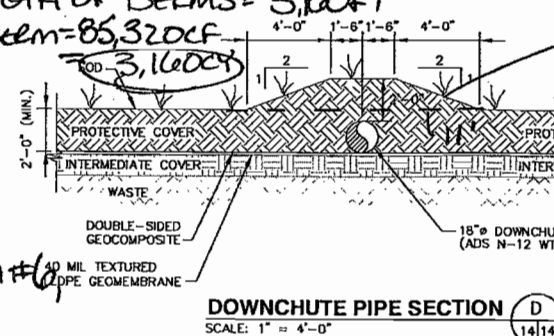
Month: November 2008

Day	Total Daily Rainfall (inches)	Water Added to Tanks Due to Rainfall (gal)	Total Liquid Added to Tanks Daily (gal)	Previous Days Liquid Remaining in Tanks (gal)	Previous Days Liquid and Total Liquid Added to Tanks Daily (gal)	Liquid Hauled From Tanks Per Day (gal)	End of Day Balance in Tanks (gal)
				85,638.4			
1	0.0	0.0	0.0	85,638.4	85,638.4		85,638.4
2	0.0	0.0	0.0	85,638.4	85,638.4		85,638.4
3	0.0	0.0	65,035.0	102,673.4	150,673.4	48,000.0	102,673.4
4	0.0	0.0	52,000.0	106,673.4	154,673.4	48,000.0	106,673.4
5	0.0	0.0	50,000.0	108,673.4	156,673.4	48,000.0	108,673.4
6	0.0	0.0	48,000.0	108,673.4	156,673.4	48,000.0	108,673.4
7	0.0	0.0	0.0	60,673.4	108,673.4	48,000.0	60,673.4
8	0.0	0.0	0.0	60,673.4	60,673.4		60,673.4
9	0.0	0.0	0.0	60,673.4	60,673.4		60,673.4
10	0.0	0.0	44,800.0	57,473.4	105,473.4	48,000.0	57,473.4
11	0.0	0.0	0.0	57,473.4	57,473.4		57,473.4
12	0.0	0.0	0.0	9,473.4	57,473.4	48,000.0	9,473.4
13	0.0	0.0	55,000.0	16,473.4	64,473.4	48,000.0	16,473.4
14	0.0	0.0	44,500.0	12,973.4	60,973.4	48,000.0	12,973.4
15	0.0	0.0	0.0	12,973.4	12,973.4		12,973.4
16	0.0	0.0	0.0	12,973.4	12,973.4		12,973.4
17	0.0	0.0	0.0	12,973.4	12,973.4		12,973.4
18	0.0	0.0	0.0	12,973.4	12,973.4		12,973.4
19	0.0	0.0	0.0	12,973.4	12,973.4		12,973.4
20	0.0	0.0	50,000.0	14,973.4	62,973.4	48,000.0	14,973.4
21	0.0	0.0	42,000.0	8,973.4	56,973.4	48,000.0	8,973.4
22	0.0	0.0	0.0	8,973.4	8,973.4		8,973.4
23	0.0	0.0	0.0	8,973.4	8,973.4		8,973.4
24	0.0	0.0	45,000.0	41,973.4	53,973.4	12,000.0	41,973.4
25	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
26	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
27	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
28	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
29	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
30	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
31	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4

Month: December 2008

Day	Total Daily Rainfall (inches)	Water Added to Tanks Due to Rainfall (gal)	Total Liquid Added to Tanks Daily (gal)	Previous Days Liquid Remaining in Tanks (gal)	Previous Days Liquid and Total Liquid Added to Tanks Daily (gal)	Liquid Hauled From Tanks Per Day (gal)	End of Day Balance in Tanks (gal)
				41,973.4			
1	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
2	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
3	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
4	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
5	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
6	0.0	0.0	76,000.0	81,973.4	117,973.4	36,000.0	81,973.4
7	0.0	0.0	0.0	81,973.4	81,973.4		81,973.4
8	0.0	0.0	10,000.0	43,973.4	91,973.4	48,000.0	43,973.4
9	0.0	0.0	0.0	43,973.4	43,973.4		43,973.4
10	0.0	0.0	46,000.0	41,973.4	89,973.4	48,000.0	41,973.4
11	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
12	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
13	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
14	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
15	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
16	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
17	0.0	0.0	0.0	41,973.4	41,973.4		41,973.4
18	0.0	0.0	66,000.0	59,973.4	107,973.4	48,000.0	59,973.4
19	0.0	0.0	66,500.0	108,473.4	126,473.4	18,000.0	108,473.4
20	0.0	0.0	0.0	108,473.4	108,473.4		108,473.4
21	0.0	0.0	0.0	108,473.4	108,473.4		108,473.4
22	0.0	0.0	0.0	108,473.4	108,473.4		108,473.4
23	0.0	0.0	0.0	108,473.4	108,473.4		108,473.4
24	0.0	0.0	0.0	108,473.4	108,473.4		108,473.4
25	0.0	0.0	0.0	108,473.4	108,473.4		108,473.4
26	0.0	0.0	0.0	108,473.4	108,473.4		108,473.4
27	0.0	0.0	0.0	108,473.4	108,473.4		108,473.4
28	0.0	0.0	0.0	108,473.4	108,473.4		108,473.4
29	0.0	0.0	0.0	108,473.4	108,473.4		108,473.4
30	0.0	0.0	0.0	60,473.4	108,473.4	48,000.0	60,473.4
31	0.0	0.0	35,475.0		95,948.4	18,000.0	77,948.4





PIPE BACKFILL  
 $VOLUME = \frac{1}{2}(2FT)(3FT + 1FT)(901FT)$   
 $= 12,614 CF$   
 $= 467 CY$

SHOWN IN ITEM #6  
"PIPING" OF FINANCIAL  
ASSURANCE

14 of 16



HORIZONTAL LFG TRENCH VENT SCHEDULE

Horizontal Vent ID	Point	Northing (ft)	Easting (ft)	Ground Surface Elevation (ft)	Invert Elevation (ft)	Design Solid Pipe Length (ft)	Design Perforated Pipe Length (ft)
HC-1A	1	1,176,600.5	726,698.3	87	82	0.0	303
	2	1,176,682.3	726,622.9	110	105		
	3	1,176,809.5	726,556.1	145	140		
	4	1,176,878.9	726,538.8	165	160		
HC-1B	5	1,176,888.8	726,561.3	110	105	75	379
	6	1,176,585.3	726,560.5	85	80		
	7	1,176,982.1	726,552.5	145	140		
	8	1,176,982.1	726,552.5	145	140		
HC-2	9	1,176,983.0	726,527.6	110	105	75	378
	10	1,176,745.0	726,560.3	93	88		
	11	1,177,223.6	726,463.9	150	145		
	12	1,177,222.1	726,526.5	110	105	75	178
HC-3	13	1,177,144.2	726,520.2	92	87		
	14	1,177,367.7	726,446.9	136	131		
	15	1,177,454.2	726,349.1	110	105	75	104
	16	1,177,536.2	726,326.7	105	100		
HC-4	17	1,177,576.6	726,555.0	135	130		
	18	1,177,481.8	726,523.9	110	105	80	139
	19	1,177,545.5	726,692.8	85	80		
	20	1,177,381.8	726,449.4	124	119		
HC-5	21	1,177,246.5	726,727.8	110	105	96	130
	22	1,177,171.9	726,833.0	88	83		
	23	1,176,982.3	726,709.4	133	128		
	24	1,177,007.6	726,782.3	110	105	77	175
HC-6	25	1,176,914.5	726,930.8	88	83		
	26	1,176,837.0	726,709.7	148	143		
	27	1,176,771.5	726,996.2	110	105		
	28	1,176,744.1	726,979.4	92	87	76	209

VERTICAL LFG VENT SCHEDULE

Vent No.	Northing (ft)	Easting (ft)	Ground Surface Elevation (ft)	Well Depth (ft)	Solid Pipe Length Below Grade (ft)	Solid Pipe Length Above Grade (ft)	Shotted Pipe Length (ft)	Rock Stub (ft)	Well Type
V-1	1,176,636.9	726,698.5	150	50	20	5	30	32	Vertical Vent
V-2	1,176,972.5	726,532.8	165	65	20	5	45	47	Vertical Vent
V-3	1,177,201.4	726,468.0	152	52	20	5	32	34	Vertical Vent
V-4	1,177,324.6	726,434.2	140	40	20	5	20	22	Vertical Vent
V-5	1,177,371.7	726,507.9	135	35	20	5	15	17	Vertical Vent
V-6	1,177,341.7	726,461.5	132	32	20	5	15	17	Vertical Vent
V-7	1,177,121.8	726,645.6	140	40	20	5	20	22	Vertical Vent
V-8	1,176,998.6	726,698.3	133	33	20	5	15	17	Vertical Vent
HC-1A.1	1,176,805.6	726,505.1	145	45	--	--	45	46	Vertical Component
HC-1A.2	1,176,682.3	726,622.9	110	10	--	--	10	11	Vertical Component
HC-1B.1	1,176,886.8	726,561.3	110	10	--	--	10	11	Vertical Component
HC-2.1	1,176,982.1	726,452.8	145	45	--	--	45	46	Vertical Component
HC-2.2	1,176,983.0	726,527.6	110	10	--	--	10	11	Vertical Component
HC-3.1	1,177,222.1	726,526.5	110	10	--	--	10	11	Vertical Component
HC-3.2	1,177,144.2	726,520.2	92	10	--	--	10	11	Vertical Component
HC-4.1	1,177,454.2	726,349.1	110	10	--	--	10	11	Vertical Component
HC-4.2	1,177,536.2	726,326.7	105	10	--	--	10	11	Vertical Component
HC-5.1	1,177,576.6	726,555.0	135	10	--	--	10	11	Vertical Component
HC-5.2	1,177,481.8	726,523.9	110	10	--	--	10	11	Vertical Component
HC-6.1	1,176,914.5	726,930.8	110	10	--	--	10	11	Vertical Component
HC-6.2	1,176,837.0	726,709.7	148	10	--	--	10	11	Vertical Component
HC-8.1	1,176,771.5	726,996.2	110	10	--	--	10	11	Vertical Component

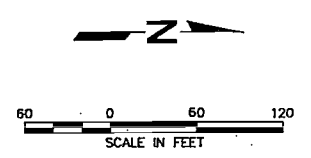
- DRILLING NOTES:
- THIS DRAFT WELL COMPLETION SCHEDULE IS NOT INTENDED FOR CONSTRUCTION, UNTIL ACTUAL SURVEY DATA IS OBTAINED AND THE WELL COMPLETION SCHEDULE IS REVISED BY THE DESIGN ENGINEER.
  - CONTRACTOR SHALL LOCATE WELLS AND VERIFY SURFACE ELEVATIONS BEFORE CONSTRUCTION. CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION SURVEY (NORTHING/EASTING/ELEVATION DATA) TO ENGINEER A MINIMUM OF 1 WEEK PRIOR TO CONSTRUCTION. ENGINEER SHALL VERIFY THE WELL SCHEDULE BASED ON THE PRE-CONSTRUCTION SURVEY.
  - CONTRACTOR SHALL PROVIDE SURVEY INFORMATION TO OWNER AND ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
  - FOLLOWING REVIEW OF SURVEY DATA, CONTRACTOR SHALL GET AUTHORIZATION FROM OWNER AND ENGINEER PRIOR TO DRILLING.

VERTICAL FT OF WELL SHOWN IN ITEM #7, "WELLS" OF FINANCIAL ASSURANCE

TOTAL SOLID PIPE LENGTH = 629 LF  
TOTAL PERFORATED PIPE LENGTH = 2,025 LF

TOTAL DEPTH = 582 VF (VERTICAL FT)

LINEAR FT OF HORIZONTAL COLLECTOR SHOWN IN ITEM #7, "HORIZONTAL COLLECTORS" OF FINANCIAL ASSURANCE



- LEGEND:
- V-6 PROPOSED VERTICAL LFG PASSIVE VENT
  - HC-1 PROPOSED HORIZONTAL VENT GOOSENECK
  - HC-1A-1 PROPOSED HORIZONTAL COLLECTOR VERTICAL LFG COMPONENT
  - PROPOSED HORIZONTAL VENT PERFORATED PIPE
  - PROPOSED HORIZONTAL VENT SOLID PIPE
  - TRANSITION FROM SOLID PIPE TO PERFORATED PIPE
  - GP-4 EXISTING GAS MONITORING PROBE
  - MH-1 EXISTING MANHOLE
  - 85 MAJOR CONTOUR (TOP OF INTERMEDIATE COVER)
  - MINOR CONTOUR (TOP OF INTERMEDIATE COVER)
  - CV EXISTING PERIMETER GAS VENT TRENCH

- NOTES:
- PROPOSED GRADES SHOWN ARE TOP OF INTERMEDIATE COVER CONTOURS AND ARE APPROXIMATELY 18 INCHES ABOVE TOP OF WASTE.
  - EXCAVATED REFUSE SHALL BE HAULED ON A DAILY BASIS TO THE PHASE II SECTION I WORKING FACE, OR OTHER LOCATION APPROVED BY THE OWNER.
  - CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3% SLOPE FOR ALL HORIZONTAL LFG VENT PIPING. IN THE CASE WHERE 3% CANNOT BE MAINTAINED, CONTRACTOR SHALL NOTIFY ENGINEER FOR SLOPE APPROVAL.
  - CONTRACTOR SHALL COORDINATE SITE ACCESS AND SEQUENCING OF WORK WITH OWNER.
  - ELECTROFUSION COUPLINGS SHALL NOT BE USED WITHOUT WRITTEN APPROVAL FROM ENGINEER OR OWNER.

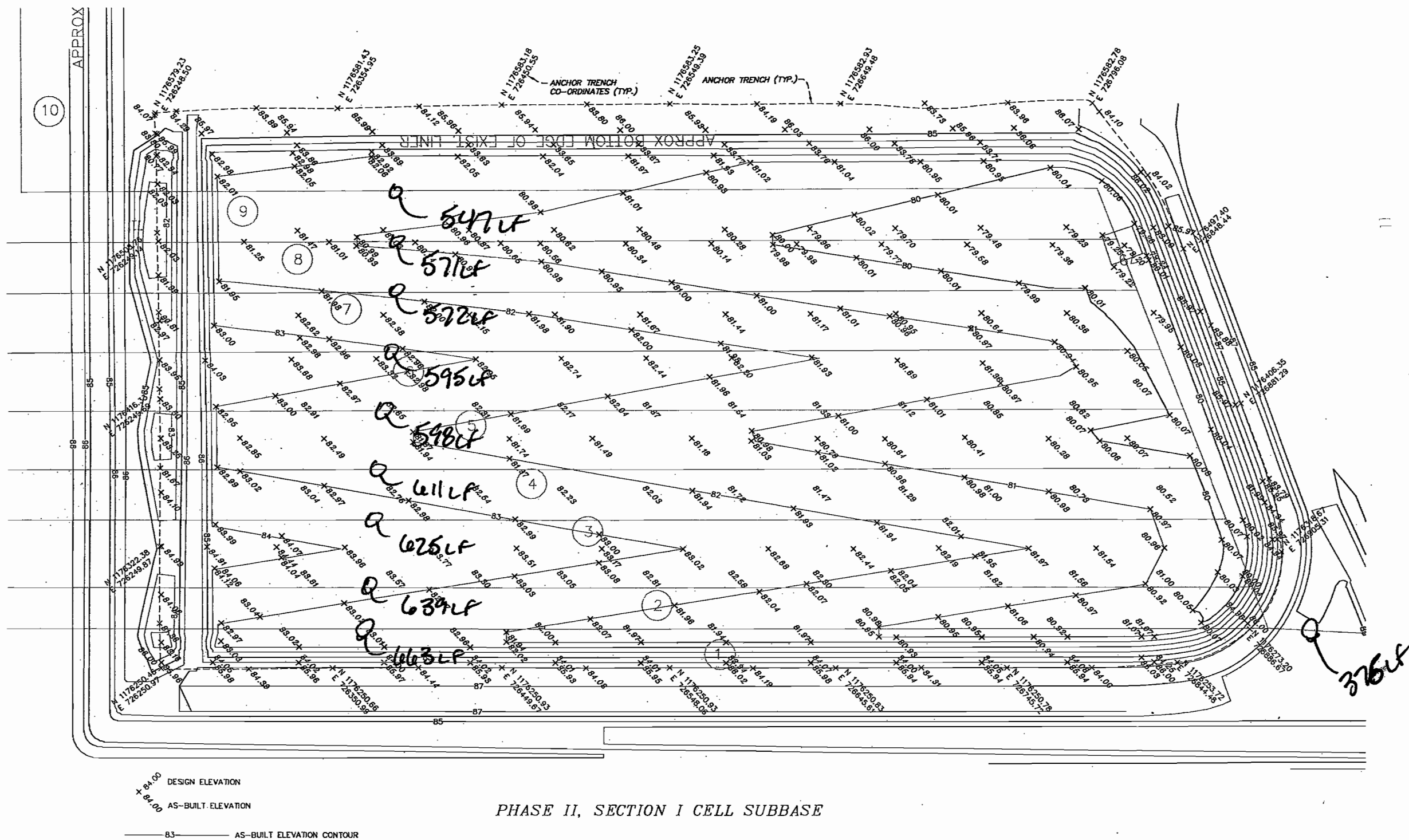
SURVEY SOURCE NOTE:  
TOPOGRAPHIC SURVEY PERFORMED BY PICKETT & ASSOCIATES, INC.  
502 MAIN STREET  
WACHULA, FLORIDA 33873  
PHONE: (863) 773-3990  
PHOTO DATE: JUNE 12, 2008

SURVEY NOTES:  
1. NORTH, THE GRID, AND THE COORDINATES SHOWN HEREON ARE REFERENCED TO THE WEST ZONE OF THE FLORIDA STATE PLANE COORDINATE SYSTEM, NAD 83, 1999 ADJUSTMENT.  
2. ELEVATIONS ARE TO NATIONAL GEODETIC VERTICAL DATUM OF 1929.  
3. SEE THE SURVEYOR'S REPORT FOR MAP ACCURACY AND SURVEYOR'S SIGNATURE AND SEAL.

CLIENT	DRAWING TITLE		DATE	BY	SRF	REV	DESCRIPTION	SHANE R. FISCHER, P.E. LICENSE NO. 38026
	LFG CONTROL SYSTEM SITE PLAN							
	PROJECT TITLE							
	HARDEE COUNTY LANDFILL PHASE I CLOSURE CONSTRUCTION DRAWINGS							
CLIENT	DRAWING TITLE		DATE	BY	SRF	REV	DESCRIPTION	SHANE R. FISCHER, P.E. LICENSE NO. 38026
	HARDEE COUNTY BOARD OF COUNTY COMMISSIONERS							
	PROJECT TITLE							
	HARDEE COUNTY LANDFILL PHASE I CLOSURE CONSTRUCTION DRAWINGS							
CLIENT	DRAWING TITLE		DATE	BY	SRF	REV	DESCRIPTION	SHANE R. FISCHER, P.E. LICENSE NO. 38026
	HARDEE COUNTY BOARD OF COUNTY COMMISSIONERS							
	PROJECT TITLE							
	HARDEE COUNTY LANDFILL PHASE I CLOSURE CONSTRUCTION DRAWINGS							
CLIENT	DRAWING TITLE		DATE	BY	SRF	REV	DESCRIPTION	SHANE R. FISCHER, P.E. LICENSE NO. 38026
	HARDEE COUNTY BOARD OF COUNTY COMMISSIONERS							
	PROJECT TITLE							
	HARDEE COUNTY LANDFILL PHASE I CLOSURE CONSTRUCTION DRAWINGS							

SCS ENGINEERS  
STEARNS, CONRAD AND SCHMIDT  
CONSULTING ENGINEERS  
3915 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619  
PH 813 644-0088 FAX 813 644-0097  
FLORIDA CERTIFICATE OF AUTHORIZATION NO. 0005682  
PROJ. NO. 08-00333.17  
CHK: VKF/LEK  
APP: BF RJD

CADD FILE: 993317LFG  
DATE: APRIL 2009  
SCALE: 1" = 60'  
DRAWING NO. 8 of 16



TOTAL LENGTH OF  
GROUNDWATER COLLECTION PIPE = 6181LF  
6181LF  
TOTAL LENGTH OF PH II, SEC I GROUNDWATER COLLECTION  
PIPE SHOWN IN ITEM #5, "CLEANING LINES AND MANHOLES" OF  
FINACIAL ASSOCIATE.

**CERTIFICATION:**  
I hereby certify that this drawing correctly reflects the results of a recent survey made under my direction and that this survey was made in accordance with the minimum technical standards adopted by the State of Florida Department of Business and Professional Regulation, Board of Professional Surveyors and Mappers, Chapter 61C17-8 of the Florida Administrative Code, pursuant to Section 472.027, of the Florida Statutes.

Robert Philip Schuler, P.L.S.  
Florida Registration #2830  
CHASTAIN-SKILLMAN, INC.  
Certificate Number LB 262  
363 U.S. Highway 27 South  
Sebring, Florida 33870  
(863)382-4160

Signature Date

**COMANCO ENVIRONMENTAL CORPORATION**  
**RECORD SURVEY**

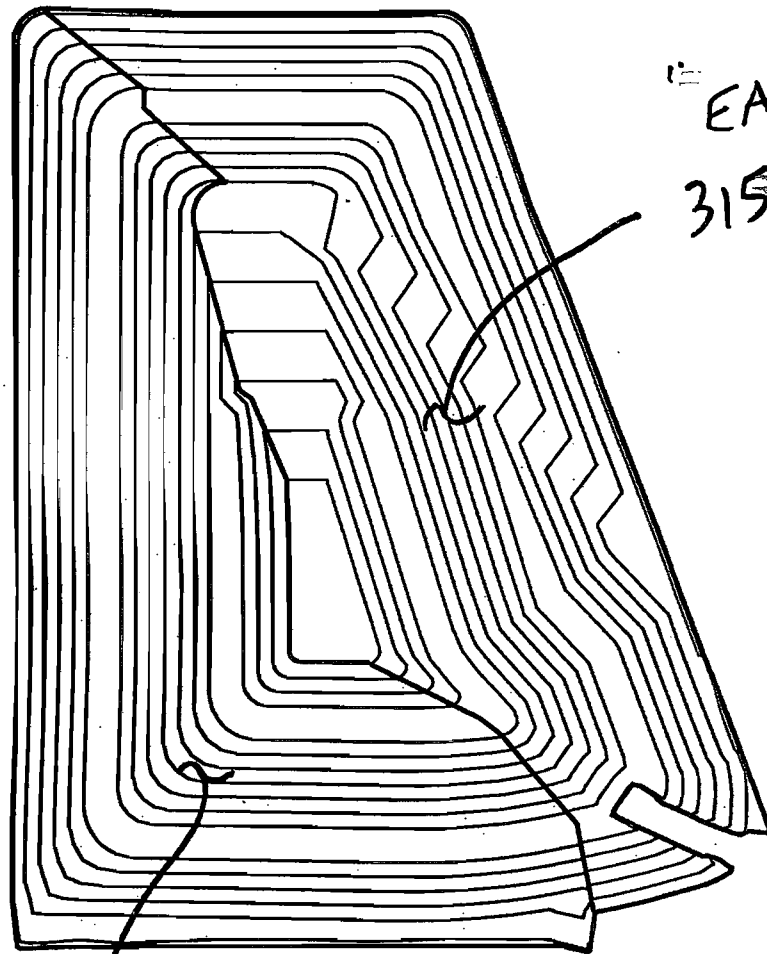
**FIELD BOOK:**  
PAGE:  
SCALE:  
1"=30'  
DATE OF SURVEY:  
1/10/2007  
DRAWING NO.  
DSS 8055.03

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.



# INTERMEDIATE COVER 3D MODEL USED

TOTAL S.F. = 632,667



"EAST"  
315,909 S.F.

"WEST"  
316,758 S.F.

QUANTITIES SHOWN IN ITEM #2, "PLACEMENT AND SPREADING", "COMPACTION", AND "OFF-SITE MATERIAL" OF FINANCIAL ASSURANCE. ALSO SHOWN IN ITEM #3, "SYNTHETICS - 40 MIL", "SYNTHETICS - GEONET BIPLANAR GEOCOMPOSITE", AND "SYNTHETICS - OTHER 60-MIL". ALSO SHOWN IN ITEM #4, "OFF-SITE MATERIAL" AND ITEM # 5, "SODDING".